City of Oakland
Agenda Report

05 FEB -9 PM 3:48

To: Public Works Committee
Public Safety Committee
From: Councilmember Jean Quan
Date: February 22, 2005

Re: RESOLUTION AUTHORIZING A LIMITED EXEMPTION TO THE INTEGRATED PEST MANAGEMENT POLICY TO USE HERBICIDES ON CITY-OWNED LAND IN THE WILDFIRE PREVENTION DISTRICT AND OTHER CITY PROPERTIES IDENTIFIED BY THE FIRE MARSHAL AS AREAS OF HIGH FIRE HAZARD

SUMMARY

The City Council is requested to approve a limited exemption to the Integrated Pest Management (IPM) policy to allow use of specific herbicides to abate certain non-native, highly flammable trees and shrubs that create a fuel load for potential fires on City - owned property in the Wildfire Prevention Assessment District and other city properties identified by the Fire Marshall as areas of high fire hazard. If approved, vegetation management staff in the City of Oakland and contractors hired to work on vegetation management projects on City-owned property within the Wildfire Prevention Assessment District and the few City-owned properties outside of the Wildfire Prevention Assessment District with similar topography and fuel load risks, will be allowed the limited use of the herbicides glyphosate and triclopyr on certain highly flammable non-native plants.

The proposed policy further requires that:

- Preference will be given to available non-pesticide alternatives, where feasible, before considering the use of herbicides on city property. Glysophate and triclopyr will only be used when conditions and best management practices (BMPs) demonstrate that a chemical treatment would be the most effective approach;
- Herbicides must be directly hand applied or painted on to the cambium layer (actively growing surface) of freshly cut stumps;
- Staff must comply with requirements established in the City's IPM policy such as public notification, dye markers, buffer zones, monthly reporting, etc.;

- Staff must comply with state and federal requirements for dispensing herbicides and permitting requirements for herbicide use;
- OFD must produce a yearly report on herbicide use as part of a strategic vegetation management plan;
- The current ban on the use of herbicides in the City's playgrounds, picnic, ball fields, and other high public use areas will remain in effect.

FISCAL IMPACT

Successful implementation of this policy will require the recruitment of a consultant with technical expertise in Integrated Pest Management (specifically the use of herbicides) and vegetation management in the urban/wild land interface so that the requirements for planning and monitoring the use of herbicides as part of an overall vegetation management plan may be implemented. Initial research shows that a consultant would run approximately $124,000 the first year, and less in subsequent years. For comparison, the cost of hiring a full-time employee at the level of a Public Works Supervisor Level II would run $123,548 including benefits. It is anticipated that the position would be funded through the Wildfire Prevention Assessment District.

The long-term fiscal impact is unknown at this time. However, the limited use of herbicides to efficiently control the proliferation of highly flammable tree and shrub materials will save labor costs over time for the Wildfire Prevention Assessment District that could be utilized for increased fire education and prevention efforts. The experience of neighboring entities has shown that when herbicides are appropriately used, the population of the invasive plants is reduced substantially over a two- to three-year period, reducing not only the continuing need for herbicide applications in the target area, but also the necessity of having labor forces do major maintenance in the area.

BACKGROUND

Integrated Pest Management (IPM) is a recognized pest management strategy that focuses on long term prevention of pests with minimum impact on human health, the environment and non–target organisms. A pest management strategy may include one or more of the following elements: no controls; physical/mechanical controls (e.g. hand labor, soil tilling, mowing); biological controls (animal grazing); chemical controls (preferably low toxicity materials such as soaps and oils) and other controls (e.g. mulching, alternative vegetation). Preference is typically given to available non-pesticide alternatives, where feasible, before considering the use of pesticides.

In May 1995, the City Council approved the implementation of a comprehensive Integrated Pest Management policy that updated the City's initial IPM policy adopted in 1981. The new policy reduced pesticide use, required public notification of pesticide use application, established coordination between departments responsible for pest management and required an annual report on usage and implementation of the policy. In December 1997, the City Council further reduced the use of pesticides through

Resolution 73968 which banned the use of pesticides on City property with only a few specific exemptions.

Following various reports to the Council from the Office of Parks and Recreation expressing concern about limited staff resources and the blighted condition of landscaped street medians, an exemption was approved in January of 2001 to allow limited herbicide use on landscaped medians to control weeds and other undesirable plants.

KEY ISSUES AND IMPACTS

The Fire Department is responsible for vegetation management on City-owned property in the Wildfire Prevention Assessment District. The District is a high fire hazard urban/wild land interface that stretches from the Contra Costa County line on the East, the Berkeley border on the North, the San Leandro border on the South, and slightly beyond Highway 13 and 580 on the West, dipping down into the Dimond Park/Dimond Canyon area. In 1991, this area experienced one of the worst urban fires in California history. Its continued vulnerability requires ongoing preventive measures to protect life and property. In 2004, a special assessment district was established to fund vegetation management and education activities in the Wildfire Prevention Assessment District.

In November 2004, the Wildfire Prevention Assessment District Advisory Council approved a Ten Year Goal to establish and implement a fuel management plan that is strategic, cost-effective, sustainable and environmentally sensitive. It also identified six criteria for identifying priorities for actions within the Wildfire Prevention Assessment District:

- Reduce the sources of ignition
- Maintain access (fire suppression) and egress (evacuation) routes
- Develop fire prevention friendly policies
- Reduce the spread of fires from wild lands
- Support/leverage efforts by home/property owners
- Develop a year-round seasonal strategy

Allowing the limited use of herbicides as one of an array of approaches under IPM best management practices (BMPs) is specifically identified as a necessity for the Wildfire Prevention Assessment District to achieve these objectives.

On January 27, 2005, the Wildfire Prevention Assessment District Advisory Council unanimously voted to endorse the proposed policy for limited use of herbicides within the Wildfire Prevention Assessment District and similarly identified city-owned properties.

Non-Native Plant and Tree Species

The following list of non-native, highly-flammable plant species are the targeted focus of the Oakland Fire Department's vegetation management efforts within the Wildfire Prevention District:

- all species of *Eucalyptus* (*E. globulus* (blue gum), red gum, and others)
- all species of Acacia (*A.dealbata* (silver wattle) and *A. melanoxylon* (blackwood acacia) and others); all non-native species of *Prunus* (plum and cherry)
- all species of *Ulmus* (elm)
- *Ilex aquifolium* (Holly)
- *Maytenus boaria* (Mayten)
- all species of *Cotoneaster* (*C. franchetii, C. lacteus, C. pannosa*)
- all species of broom and gorse: *Cytisus scoparius* (Scotch broom), *Genista monspessulana* (French broom), *Spartium junceum* (Spanish broom) and *Ulex europea* (gorse)
- *Crataegus monogyna* (Italian hawthorn)
- non-native species of blackberry: *Rubus discolor* (Himalayan blackberry) and *R. ulmifolius* (thornless blackberry)
- *Cortaderia selloana* and *C. jubata* (pampas grass, jubata grass),

These plants were brought here from all over the world and have few natural enemies to deter their growth in this environment. Eucalyptus, in particular, is highly flammable and proved to be the primary fuel load for the 1991 Oakland Hills fire. Acacias create dense thickets with deep fuel beds of seed pods and downed wood. Other plants represent less immediate fire danger, but resprout vigorously when cut, creating repeated management expenses in fuel breaks and on roadsides. Vegetation management staff in the Wildfire Prevention Assessment District work to control fuel beds and ladder fuels created by these non-native, invasive plants throughout approximately 1000 acres of city-owned open space, canyon hill parcels, roadsides, public streets, paths, firebreaks and escape routes. Left unchecked, non-native trees and shrubs threaten native plant species and wildlife habitat, and create a continuous fuel bed for potential fires that could cause the loss of life and significant property damage.

The exemption for limited herbicide use will be exclusively focused on the plant and tree species listed above. The plants on this list have been identified by OFD vegetation management staff working in the District. The list of non-native plants may expand as new species threatening wildfire prevention efforts are identified. Any new species found problematic in the District will be reported in an annual report to the Wildfire Prevention Assessment District Advisory Board and the City Council.

Grazing, Hand Pulling and Mechanical Cutting Methods

Under the current IPM policy, staff must control and eradicate the growth of non-native plants solely through the use of grazing, hand pulling and mechanical cutting methods. Integrated Pest Management specialists, particularly among the public agencies working within the Wildfire Prevention Assessment District and adjacent to it, have successfully integrated limited herbicide use into their vegetation management practices. All of them follow the IPM guideline of using herbicides only when necessary. Consequently,

herbicides are a small component of their IPM program (from 2 to 6 gallons of concentrate per year), and they have seen decreases in the amounts they have used over time.

Grazing, hand pulling and mechanical means of weed control are not always effective in controlling the spread of invasive non-native vegetation. Each method has limitations in the rugged topography in much of the Wildfire Prevention Assessment District.

Eradicating eucalyptus trees has been particularly challenging for OFD and City staff. When mechanically cut, the eucalyptus tree resprouts quickly and profusely, requiring cutting several times a year to fully abate growth or simply control. Repeatedly returning to a particular canyon to re-cut new growth is costly and inefficient. Likewise, a repeated trip into an area where native plant growth may be disturbed is not a good practice.

Goat grazing is most effective at removing grass and at reducing the overall fuel load in shrublands. Most of the woody invasive shrubs resprout after goat grazing, including broom. Hand pulling is usually required for long-term control. This method is labor intensive and very costly. Hand pulling may also contribute to erosion as dislodging roots from a large area may cause the soil to become unstable and slide.

The most efficient approach to managing nuisance plants is a combination of methods, based upon plant species, location, topography, employee safety and economic considerations. This analysis is the key component of a working Integrated Pest Management program.

IPM Requirements

Herbicides would only be used when necessary, as a part of the annual WPAD vegetation management plan, and according to strict requirements as outlined in the City's Integrated Pest Management procedures manual, other local, state and federal regulations and this resolution.

The limited use of herbicides would be identified within the Wildfire Prevention Assessment District's annual plan for use on identified plants in specific locations, using BMPs garnered from other public agencies with vegetation management responsibilities. These include the East Bay Regional Park District, the University of California, and East Bay Municipal Utility District, and other public agencies in the greater Bay Area. The California Invasive Plant Council and The Nature Conservancy, and other conservation groups provide valuable research on their web sites BMPs from the State Department of Fish and Game and the U.S. Fish and Wildlife Service will be adopted for areas containing endangered species. City staff will consult with and obtain necessary permits from agencies such as the Alameda County Clean Water Program or the City's Environmental Services Creek Protection Program, prior to applying pesticides in endangered species habitats.

Standards already established in the City's current IPM policy will remain in force. These include requirements for:

- Public notification;
- Signage;
- Dye markers to indicate exactly where herbicide was applied;
- Monthly reporting;
- Buffer zones;
- Compliance with all state and federal regulations for applying and dispensing herbicides, including training or certification of all city staff and contractors who handle herbicides;
- Monitoring areas where herbicides have been applied.

The most important component of the IPM policy is the annual reporting requirement that details when and where herbicides have been applied in the past year and will be applied in the coming year, what herbicide was used, quantities used, and the success rate of the application, if possible. In addition to the mandated reporting requirements, the proposed exemption for the Wildfire Prevention Assessment District calls for the Fire Department to develop a vegetation management plan each year that is reviewed and approved by the Wildfire Prevention Assessment District Board and the City Council. The Wildfire Prevention Assessment District Board is a citizen advisory body responsible for developing a ten-year strategic plan for fuel reduction in the District. The vegetation management plan will allow staff to yearly map out the work required to meet the goals of the strategic plan. The plan will also contain a report detailing the use of herbicide over the past year, it's impact on fuel reduction efforts and report new, non-native plants threatening the District The success of the proposed policy can be measured by a reduction in the use of herbicides each year and the resurgence of native plant species that are more fire resistant and provide forage and habitat for wildlife.

Herbicide Formulations and Application

The exemption will be limited to the use of two herbicides – glysophate (in formulations such as Roundup or Rodeo) and triclopyr (in formulations such as Garlon and Pathfinder). These are federally- and California-registered pesticides for the control of woody plant species and broad leaf plants in right of ways, forests, open space parks, ditch banks and maintenance of wildlife corridors. The U.S. Environmental Protection Agency categorically ranks herbicide toxicity on a scale of one to four as follows: Category One – highly toxic; Category Two – moderately toxic; Category Three – Slightly Toxic; Category Four – Not Acutely Toxic. Both glysophate and triclopyr have received the lowest ranking for toxicity or a Category Four. In accordance with the city's IPM policy and BMPs, the choice of formulation for each type of application will be determined based on environmental factors as well as the product's capabilities.

When herbicides are needed for vegetation control, best management practices call for direct application to the plant or tree either by hand painting or hand applying the herbicide directly on to the cambium of the freshly cut tree or plant stump. When

glysophate and triclopyr are applied in this manner, the herbicide is absorbed within the plant or tree's system and does not migrate into the surrounding soil.

Glysophate and triclopyr will only be used when conditions and BMPs demonstrate that a chemical treatment would be the most effective approach and will only be applied to the list of plants previously identified in this report and those new non-native plants that may be identified in the Wildfire Prevention Assessment District's yearly report.

Environmental Impact

SUSTAINABLE OPPORTUNITIES

Economic: Giving the Oakland Fire Department a cost effective tool to control flammable non-native vegetation will prevent the destruction of homes and property.

Environmental: The goal of the proposed policy is to enhance fire prevention efforts and encourage the growth of native vegetation. Fires create severe toxic pollution damaging local streams and wildlife. Native trees and plants are more fire resistant and provide forage and habitat for wildlife.

Social Equity: Fire prevention equally benefits every member of the community. The ongoing effort to reduce the fuel load within the Wildfire Prevention Assessment District reduces the risk of a major fire spreading throughout the city following another firestorm such as the City experienced in 1991 or after a major earthquake on the Hayward Fault, which runs through the length of the Wildfire Prevention Assessment District.

DISABLED AND SENIOR ACCESS

Much of the city-owned land focused in this report consists of non-landscaped, undeveloped properties that are not wheelchair accessible.

RECOMMENDATION

That the City Council approve the attached resolution authorizing a limited exemption to the Integrated Pest Management Policy to use herbicides on City-owned land in the Wildfire Prevention Assessment District and other City properties identified by the Fire Marshal as areas of high fire hazard.

Respectfully submitted,

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Jean Quan
Councilmember, District 4

Appendix 1

OAKLAND CITY COUNCIL

RESOLUTION NO. _____ C. M. S. REVISED

INTRODUCED BY COUNCILMEMBER _____

RESOLUTION ADOPTING INTEGRATED PEST MANAGEMENT POLICIES FOR THE CITY OF OAKLAND

WHEREAS, the City recognizes that population levels of certain plants, insects, plant pathogens, vertebrates, and other pests may create a nuisance or threaten the public health and safety, and therefore need to be controlled; and

WHEREAS, the City recognizes that the use of pesticides can present a potential hazard to the citizens of Oakland, City staff and the environment, now therefore be it

RESOLVED: That City departments shall, to the fullest extent possible, adopt and implement Integrated Pest Management (IPM) techniques and methods as standard operating procedures to manage pest problems; and be it

FURTHER RESOLVED: That, effective January 1, 1998, pesticides shall not be used in or on City owned property or facilities, except as specifically exempted by this resolution; and be it

FURTHER RESOLVED: That the only exemptions to the ban on pesticides established herein are as follows:

1. In those instances where the use of pesticides is required to preserve and/or protect human health and safety;

2. The use of swimming pool chemicals, disinfectants, and other antimicrobials;

3. The use of pesticidal soaps, insect growth regulators, microbials, botanicals, synthetic pyrethroids, horticultural oils, and insecticidal bait stations;

4. At municipal golf courses (signage shall be provided warning golfers of the pesticides used, the location, and date of application);

5. At municipal putting and lawn bowling greens (with signage as per 4. above);

6. At the Morcom Rose Garden (with signage as per 4. above);

7. For weed control in the construction of new landscaping and ballfields (with signage as per 4. above);

8. In sports fields, to control gophers, moles, and ground squirrels;

9. In the Oakland Museum of California, to protect museum artifacts, artworks, and collections;

10. Around fire hydrants in selected areas where weed growth threatens to obscure them;

11. On public streets and rights-of-way maintained by the Public Works Agency; and be it

FURTHER RESOLVED: That exemption 1 above shall only apply to situations that conform to guidelines established by the Alameda County Health Agency, and that herbicide usage is not exempted by exemption 6 above; and be it

FURTHER RESOLVED: That when the use of any pesticide is determined to be necessary, the least hazardous effective available pesticide will be used; and be it

FURTHER RESOLVED: That category 1 pesticides shall not be used on any City property except for the use of aluminum phosphide on sports fields for vertebrate control; and be it

FURTHER RESOLVED: That only pesticides that are approved and registered with the Environmental Protection Agency and by the State of California will be used; and be it

FURTHER RESOLVED: That if contractors are used to apply pesticides, they must be licensed by the State of California as Pest Control Operators; and be it

FURTHER RESOLVED: That public notification of pesticide use be done through signage of areas being treated, marker dyes in sprays, and public education programs; and be it

FURTHER RESOLVED: That City employees are not to bring pesticides from home for use on City property. This includes pesticides that are packaged for home use; and be it

FURTHER RESOLVED: That each City agency have a person designated to be responsible for coordinating pest control issues; and be it

FURTHER RESOLVED: That the Citizens' IPM Advisory Committee shall continue to advise the City Council on pest control practices.

I certify that the foregoing is a full, true and correct copy of a Resolution passed by the City Council of the City of Oakland, California.

on _____

CEDA FLOYD
City Clerk and Clerk of the Council

Per _____ Deputy

Appendix 2

City of Oakland
Integrated Pest Management Plan

May 1996

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Citywide IPM Plan

Departmental IPM Plans

Introduction

> Integrated pest management (IPM) is a pest management strategy that focuses on long-term prevention or suppression of pest problems with minimum impact on human health, the environment, and nontarget organisms. Preferred pest management techniques include encouraging naturally occurring biological control, using alternate plant species or varieties that resist pests, selecting pesticides with a lower toxicity to humans or nontarget organisms; adoption of cultivating, pruning, fertilizing, or irrigation practices that reduce pest problems; or changing the habitat to make it incompatible with pest development. Broad spectrum pesticides are used as a last resort when careful monitoring indicates they are needed according to preestablished guidelines. When treatments are necessary, the least toxic and most target-specific pesticides are chosen. Implementing an integrated pest management program requires a thorough understanding of pests, their life histories, their environmental requirements and natural enemies as well as establishment of a regular, systematic program for surveying pests, their damage and/or other evidence of their presence. ["Establishing Integrated Pest Management Policies and Programs: A Guide for Public Agencies"; Flint, Daar, & Molinar]

The City of Oakland embraced Integrated Pest Management (IPM) principles on February 3, 1981 when it adopted Resolution No. 59482 C.M.S. Since that time, City staff has been informally using these principles. To further advance the use of IPM principles, this citywide IPM plan has been developed. It specifies the procedures that City staff uses to control pests. This provides a reference for pest control experts, city staff, and the citizens of Oakland from which to make comments, criticisms, or recommendations. Therefore, this document will be amended as suggestions are adopted, new pest control techniques are developed, new pests present themselves, old pests present new problems, or other concerns are expressed.

This IPM plan is divided into two major sections. The first section is the portion that defines the IPM plan from a citywide perspective. This section presents the procedures that the departments which are responsible for pest control will follow to develop their own IPM plans, and how these departmental plans are integrated into the citywide IPM plan. The second section presents the IPM plans for each of the departments.

Goals & City Policies

1. Whenever feasible, pesticides will not be used when an effective alternative is available that does not involve the use of pesticides.

2. When a pesticide is determined to be necessary, the least hazardous pesticide available that will provide an adequate level of control will be used.

3. Only category 2, 3, and 4 pesticides will be used. (Category 1 pesticides are considered the most toxic, and category 4 pesticides are considered the least toxic.)

4. Pesticides that are designated by the State of California as Restricted Pesticides will only be used when a non-restricted pesticide will not provide an acceptable level of control. Restricted pesticides are pesticides that present a particular hazard, so the State of California requires a special permit to use them.

5. Only pesticides that are approved and registered with the Environmental Protection Agency and by the State of California will be used.

6. All federal and state laws that pertain to the safe use of pesticides will be adhered to.

7. All instructions on the label of the pesticide will be followed. This includes instructions on:

   A. proper mixing procedures,

   B. the proper use of the pesticide,

   C. the proper disposal of empty containers and any unused material.

8. Only City employees who have a current Qualified Pesticide Applicator Certificate will apply pesticides. The only exception to this will be the use of Roundup in 3 gallon tanks.

   If contractors are used to apply pesticides, they must be licensed by the State of California as Pest Control Operators. State law requires that employee's of these companies be properly trained in each pesticide that they are to mix or apply.

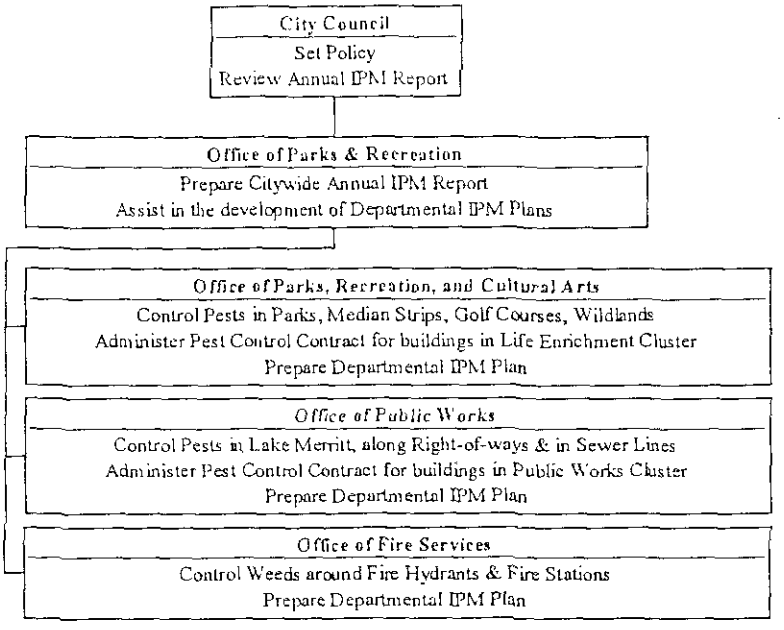
   City employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use.

9. An employee will receive training in the proper use of a pesticide before he or she can use that pesticide. This specific training will be conducted on an annual basis, and will be one part of the state mandated annual training on the safe and effective use of pesticides that all employees who use pesticides are required to participate in.

10 For Pest control actions that take place in parks, golf courses, median strips, right-of ways, and any other area that is considered an agricultural use by the State of California, a Pest Control Recommendation will be prepared by a Pest Control Adviser who is licensed by the State of California.

11. In an effort to reduce pesticide use, a target reduction of 5% per year has been established. The basis for monitoring pesticide usage will be the weight of the active ingredient of the pesticide.

Implementation Structure



Development of Pest Control Strategies

Summary

Before pest control operations can be conducted against any pest, a pest control strategy must exist for that pest. This strategy will specify:

1. The pest to be controlled,
2. The location,
3. The host (if applicable),
4. Action thresholds,
5. Approved methods of control.

If an applicable control strategy does not exist one must be developed before pest control operations can begin.

Development of Pest Control Strategies

Each department will develop and update their own pest control strategies for the pests that affect them. As available resources permit, the Office of Parks, Recreation, and Cultural Affairs will provide some technical assistance in the development of these strategies.

These strategies will specify:

1. **The Pest,**
   The pest should be identified as specifically as is reasonable. Scientific and common names are acceptable, but if scientific names are used common names should also be noted to make the strategy as understandable as possible. As an example, identifying the pest as argentine ants is preferable to identifying it as ants, and the scientific name (*Iridomyrmex humilis*) could be included for completeness.

2. **The Location,**
   The location should also be identified as specifically as is reasonable. It should either specify a location by name or by type of facility. Some examples would be, City of Oakland Service Center, City maintained buildings, Lakeside Park Show Gardens, or City of Oakland parks. The more specific names would be used when the pest only occurs at that location.

3. **The Host** (Not always applicable),
   The host is the organism that the pest lives on. An example of a host would be a dog for fleas. Dogs are the host, and fleas are the pest.

4. **Action Thresholds,**
   An action threshold is an observable condition that must be present before a pest control measure can be initiated. The action threshold is calculated to initiate a pest control method when it will be effective in keeping the pest population below an injury level.

A pest is only a problem if it causes a significant amount of damage. An insect pest that only eats one leaf off of a tree is not a problem, but if the pest ate 50% of the leaves of a tree, then it might be considered a problem. The amount of damage that a pest must cause before it is considered a problem is the injury level. The **injury level** is then used to determine the **action threshold**. The action threshold should take into account, the pests' natural population fluctuations, the pests' natural enemies, the time needed for the control measure to take effect, etc. To help develop these action thresholds, scientific literature, monitoring of the pest, staff experience, and any other applicable resources should be consulted.

Typical action thresholds include:

A. Observing the pest in a specified abundance (e.g. 4 fleas found on the dog when doing a weekly inspection)
B. Observing a specified amount of damage from a pest (e.g. 50% of the leaves of a tree are eaten)
C. Observing a specified temperature & humidity conditions which create an environment suitable for fungal infections.

5. **Approved Methods of Control**

An action threshold is determined for a specific method of control. This is because different control methods can be more effective under different conditions, and because a control method that has few or no adverse effects can and should be initiated before a control method with more adverse effects is initiated. Approved methods should only include those practices in which the benefits of that action outweigh any potential adverse affects. Adverse affects include the time and cost involved to perform the control action, inconvenience to the public, health concerns, environmental concerns, etc. If no method can be found that meets this criteria, then the only approved method should be "no action" until an acceptable method of control is developed.

It is advisable to develop as many methods of control as possible. This helps keep any adverse affects from accumulating and the pest from becoming resistant to any one form of control. It also gives the most number of options to best meet any particular situation. All potential methods of control should be considered not just chemical ones. **Non-chemical control methods include:**

A. Cultural Practices

Cultural practices are those measures that are taken to alter the environment to be beneficial to the host and detrimental to the pest. Cultural practices in a park setting, include things like watering, fertilizing, pruning and mulching. For the dog and flea example, proper grooming can help reduce flea problems, and different grooming techniques can be initiated when fleas are a problem. A large number of pest problems can be avoided if proper sanitation practices are followed in the storage, consumption, & disposal of food (See page 40).

B. Biological Control

Biological Control involves introducing an organism that preys on the pest. Ladybird Beetles are sometimes released in an attempt to control aphid populations. Biological control is usually most effective in controlling pests that have been introduced to our area from another location. The medfly is an example of an introduced pest.

C. Mechanical Control

Mechanical Control involves physically manipulating the pest, the host, or the environment. This includes measures like picking the fleas off the dog, hand weeding, and mowing or plowing weeds under the soil.

Pest Control Procedures

This section describes the procedure that must be followed before a pest control operation can be initiated.

1. Monitoring

Monitoring is an integral part of any IPM plan. Since initiation of a pest control operation depends on observing when an action threshold is reached, monitoring of the environment is necessary to observe when it occurs. Monitoring and careful record keeping can also provide valuable data on the effectiveness of pest control actions and pest population fluctuations. Observations of the pests environment and health of the host is also helpful. Modifications of the environment can help to deter pest problems. A healthy landscape plant is less likely to be attacked by a pest than an unhealthy plant. Therefore proper pruning, fertilizing, watering and other cultural practices can help reduce the necessity of other pest control measures. Some of these cultural measures can be included as approved methods of control for control of a pest.

2. Action Threshold Reached

When the action threshold is reached for a particular pest, the associated method of control can be initiated.

3. Initiate Appropriate Control Measure

A. *Pest Control Recommendation*

For control measures that take place in parks, golf courses, median strips, right-of ways, and any other area that is considered an agricultural use by the State of California, a Pest Control Recommendation is required. This Recommendation is written by a Pest Control Adviser who is licensed by the State of California. If the department performing the pest control operation does not have a current Recommendation for the planned method of control, a new Recommendation must be acquired.

Currently, the Office of Parks, Recreation, and Cultural Affairs is the only department in the City that has a licensed Pest Control Adviser on staff. Therefore, the Office of Parks, Recreation, and Cultural Affairs will provide these recommendations to other departments as time and resources permit. It is the responsibility of the department requesting the recommendation that their recommendations are up to date, and that all information necessary to complete the recommendation is supplied to the Office of Parks, Recreation, and Cultural Affairs. It is also the requesting departments responsibility to ensure that all the procedures on the recommendation, on the label, and in applicable State and Federal laws are followed.

B. Public Notification

To ensure that the public and city staff are aware of what pesticides are being used in their vicinity, the following public notification procedures must be followed by City staff and contractors performing pest control operations for the City. There are three types of notification that can be required:

a. media and neighborhood notification
b. public notification signs
c. blue dye in liquid pesticides.

a. Media and Neighborhood Notification

For all large scale pesticide application which are pre-scheduled (e.g. right-of-way, street median weed control programs, and Lake Merritt algae control), press releases shall be issued and public notices posted in local newspapers, on KTOP, and on CityLine; such notices shall also be distributed to neighborhood organizations in the affected areas. Such notices shall include the locations and dates of proposed pesticide applications, a description of the pesticides being used, and phone numbers for obtaining more information or reporting problems.

b. Signs

BUILDINGS

When pest control operations will be conducted inside of a building, public notification signs will be posted as described below. Signs do not have to be posted for the use of poisonous baits and traps as their effect is localized.

1. Signs shall be posted at least 3 working days prior to any pesticide application, and shall remain posted for at least 24 hours after the application or until the reentry period has elapsed (whichever is longer).

2. The signs shall:
   A. Be at least 8.5" x 11".
   B. Be printed on a bright red background.
   C. Include the following information:
      a. The date the pesticide will be applied.
      b. The location(s) within the building that is to be treated.
      c. The problem pest(s).
      d. The pesticide(s) that is to be used.
      e. The reentry period that is specified on the pesticide label.
      f. A phone number to call for more information or concerns.
   D. Have the Material Safety Data Sheet (MSDS) for the pesticide(s) attached to the sign.
   E. The date and time shall be added to the sign when the pesticide is applied.

3. The signs shall be posted at all entrances to the building.

There is a sample sign on the following page. It can be copied onto red paper, properly filled out with the MSDS attached, and used as a public notification sign.

Public Notice
of
Pesticide Application

A Pesticide will be applied in this building. The Material Safety Data Sheet (MSDS) is attached to this notice.

Planned Application Date: _____

Location(s): _____

Pest being Controlled: _____

Pesticide(s) to be Used: _____

Reentry Period: _____

For More Information Call: _____

This information is to be completed when the pesticide is applied.

Application Date: _____

Application Time: _____

PARKS & OTHER LANDSCAPED AREAS

When pest control operations will be conducted in a park, vacant lot, public path, roadsides, or in the landscaped area surrounding City owned buildings, public notification signs will be posted as described below.

1. Signs shall be posted 24 - 72 before the pesticide application is started, and shall remain posted for at least 24 hours after the application or until the reentry period has elapsed (whichever is longer).

2. The signs shall:
   A. Be at least 11" x 17".
   B. Be printed on a bright red background.
   C. Include the following information:
      a. The date & time of the pesticide application.
      b. either i or ii
         i. The **location(s)** within the park that is to be treated.
         ii. A notification that **blue dye** is in the pesticide to indicate where it has been applied.
      c. The problem pest(s).
      d. The pesticide(s) that is to be used.
      e. The reentry period that is specified on the pesticide label.
      f. A phone number to call for more information or concerns.

3. The signs shall be located as follows:
   A. **Parks**
      The signs shall be posted at all sidewalks & paths that enter the area being treated, and at any other location where people would normally enter the area being treated.
   B. **Vacant Lots**
      The signs shall be posted on each side of the property that is bordered by a street or sidewalk.
   C. **Public Path**
      The signs shall be posted at each end of the public path and at any other public entrances to the path.
   D. **Roadsides**
      The signs shall be posted at each end of a block the roadside spans, or at each end of the roadside if it does not span a block and it is more that 100' wide. If the roadside is 100' wide or less one sign is required.
   E. **Landscaped Areas Surrounding Public Buildings**
      The signs shall be posted at all sidewalks & paths that enter the area being treated, and at any other location where people would normally enter the area being treated.

There are two sample signs on the following four pages. The first sign is for situati where blue dye is not used, and the second sign is for situations where blue dye used. Since the signs are 11" x 17", they span two pages of this document. Signs on a single 11" x 17" piece of paper can be obtained from Art Yamashita of the Office of Parks, Recreation, and Cultural Affairs (615-5850). These full sized signs can be copied onto red paper, properly filled out, and used as public notification signs.

Public

Pesticide A

Application Date: _____

Location(s): _____

Pest(s) being Controlled: _____

Pesticide(s) to be Used: _____

Reentry Period: _____

For More Information Call: _____

Notice f pplication

Time: _____

Public

Pesticide

A Pesticide is being applie
contains a **blue dye** to indica

Application Date: _____

Pest(s) being Controlled: _____

Pesticide(s) to be Used: _____

Reentry Period: _____

For More Information Call: _____

Notice
f
.pplication

in this area. The pesticide
; where it has been applied.

___ Time: _____

_____

_____

_____

_____

_____

MEDIAN STRIPS

People do not usually frequent median strips. Therefore, if a walkway or path does not enter a median strip, signs are not usually required unless the pesticide label specifies that posting is required. However, blue dye shall be mixed with all liquid pesticides to indicate what areas have been sprayed.

If a walkway or path enters a median strip, signs shall be posted as specified in the Parks & Other Landscaped Areas section (p. 13). The signs shall be posted at all sidewalks & paths that enter the area being treated, and at any other location where people would normally enter the area being treated.

FIRE HYDRANTS

Signs are not required when applying Roundup around fire hydrants. However, blue dye shall be mixed with the spray to indicate what has been sprayed.

CHABOT GOLF COURSE

When pest control operations will be conducted at Chabot Golf Course, public notification signs will be posted as described below.

1. Signs shall be posted before the pesticide application is started, and shall remain posted for at least 24 hours after the application or until the reentry period has elapsed (whichever is longer).

2. The signs shall:
   A. Be at least 11" x 17".
   B. Be printed on a bright red background.
   C. Include the following information:
      a. The date & time of the pesticide application.
      b. The **location(s)** that is to be treated.
      c. The *problem pest(s)*.
      d. The pesticide(s) that is to be used.
      e. The reentry period that is specified on the pesticide label.
      f. A phone number to call for more information or concerns.

3. The signs shall be posted at the first tee of the golf course.

There is a sample sign on the following two pages. Since the sign is 11" x 17", it spans two pages of this document. Signs on a single 11" x 17" piece of paper can be obtained from Art Yamashita of the Office of Parks, Recreation, and Cultural Affairs (615-5850). These full sized signs can be copied onto red paper, properly filled out, and used as public notification signs.

Public

Pesticide A

Application Date: _____

Location(s): _____

Pest(s) being Controlled: _____

Pesticide(s) to be Used: _____

Reentry Period: _____

For More Information Call: _____

Notice

f

pplication

Time: _____

_____

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_____

LAKE MERRITT

1. Signs shall be posted at least 24 hours prior to the pesticide application, and shall remain posted for at least 24 hours after the application or until the reentry period has elapsed (whichever is longer).

2. The signs shall:
   A. Be at least 8.5" x 11"
   B. Be printed on a bright red background.
   C. Include the following information:
      a. The date the pesticide will be applied.
      c. The problem pest(s).
      d. The pesticide(s) that is to be used.
      e. The reentry period that is on the pesticide label.
      f. A phone number to call for more information or concerns.

   D. The date and time shall be added to the sign when the pesticide is applied.

3. Signs shall be posted at:
   A. The Sailboat House boat rental window.
   B. The Rowing Club boat storage facilities at 1520 Lakeside Drive.
   C. The entryway of the Parks, Recreation, and Cultural Affairs offices at 1520 Lakeside Drive.

There is a sample sign on the following page. It can be copied onto red paper, properly filled out, and used as a public notification sign.

Public Notice of Pesticide Application

A pesticide will be applied to Lake Merritt for the control of algae.

Planned Application Date: _____

Pesticide(s) to be Used: _____

Reentry Period: _____

For More Information Call: _____

This information is to be completed when the pesticide is applied.

Application Date: _____

Application Time: _____

VEHICLES

Whenever a pesticide is being applied from a vehicle (e.g. truck, trailer, or utility cart), the vehicle shall display a sign on each side and rear of the vehicle. The signs shall:

A. Be at least 11" x 17" unless this size sign would interfere with the proper use of the spray equipment. In no case will the sign be smaller than 8.5" x 11".
B. Be printed on a bright red background.
D. State that the vehicle is being used to apply pesticides and display a phone number to call for information or concerns. (Note: additional information is not recommended because it will not be readable on a moving vehicle).

There is a sample sign on the following two pages. Since the sign is 11" x 17", it spans two pages of this document. Signs on a single 11" x 17" piece of paper can be obtained from Art Yamashita of the Office of Parks, Recreation, and Cultural Affairs (615-5850). These full sized signs can be copied onto red paper, properly filled out, and used as public notification signs.

PEST

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c. **Dye Markers**

All outdoor liquid pesticide applications will use a blue dye marker to indicate exactly where pesticide materials have been applied. The only exceptions to this requirement shall be for golf course tees, greens and fairways, and on flowering plant material where blue dye would significantly detract from the visual aesthetics of the plant material (e.g. roses at the Morcom Rose Garden).

C. Pesticide Purchasing

All purchasing of pesticides must be done with the approval of the applicable department's designated Pest Control Officer. No other person should be authorized to approve the purchase of any pesticide. Employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use.

D. Pesticide & Pesticide Container Disposal

a. Unused pesticides and empty pesticide containers will only be done at disposal sites approved by the Alameda County Agricultural Commissioner's Office.
b. All empty containers that previously contained concentrated liquid pesticides are to be triple rinsed before disposal. The rinsate is to be added to the spray tank as part of the water used to dilute the pesticide.
c. All disposal procedures on the pesticide label and required by law will be adhered to.

E. Record Keeping

Records are to be kept of all pesticide applications done by City staff and contractors. The records are to include:

a. the date of the application
b. the brand name of the pesticide
c. the amount of pesticide used
d. the concentration of the pesticide used
e. the name of the applicator or contractor's name
f. where the pesticide was applied
g. when applicable, the size of the area treated.

These records are to be sent to the Pest Control Officer of the Office of Parks, Recreation, and Cultural Affairs by the end of the following month.

By State law, records of this same information are required to be kept for two years and a monthly summary is required to be sent to the Alameda County Agricultural Commissioner's Office for applications done by City staff.

F. Evaluation

As part of the regular monitoring program, the effectiveness of the treatment should be evaluated to help make future treatments more effective.

Training & Certification

1. **Pesticide Applicators**
   Only City employees who have a current Qualified Pesticide Applicator Certificate will apply pesticides. The only exception to this will be the use of Roundup in 3 gallon tanks. Roundup when mixed and applied from 3 gallon tanks may be applied by city employees who have received annual training in its proper use.

   To obtain a Qualified Pesticide Applicator Certificate, one has to pass a series of tests given by the State of California. Qualified Pesticide Applicator Certificate holders also have to complete 20 hours of additional training every 2 years.

   All employees who apply pesticides will be required to receive annual training on the proper use of pesticides, and will receive specific training on the proper use of each type of pesticide they will use. An employee will not apply pesticides unless he or she has received this training.

   If contractors are used to apply pesticides, they must be licensed by the State of California as Pest Control Operators. State law requires that employee's of these companies be properly trained in each pesticide that they are to mix or apply.

2. **Pest Control Advisors**
   For control measures that take place in parks, golf courses, median strips, right-of ways, and any other area that is considered an agricultural use by the State of California, a Pest Control Recommendation is required. This Recommendation is written by a Pest Control Adviser who is licensed by the State of California. To be eligible for this license, one has to meet stringent educational requirements and pass a series of tests given by the State of California. To maintain this license, a Pest Control Advisor has to complete 40 hours of training every 2 years.

Public Outreach

As materials and resources become available, an effort will be made to provide the Citizens of Oakland with material that will assist them to decide when to use pesticides, how to properly use pesticides if they are to be used, and how to understand the information that is continued on a pesticide label. This material will also include information on alternatives to pesticides and other pest control methods.

Use Reports

1. **Monthly Reports**
   The Office of Public Works and the Office of Fire Services will prepare a monthly report of all pesticides used by their respective departments and contractors. The report will list for each application:

   A. the date of the application
   B. the brand name of the pesticides used
   C. the amount of pesticide used
   D. the concentration of the pesticide used
   E. the name of the applicator or contractor's name
   F. where the pesticide was applied
   G. when applicable, the size of the area treated.

   This report is to be sent to the Pest Control Officer of the Office of Parks, Recreation, and Cultural Affairs by the end of the following month.

   By State law, records of this same information are required to be kept for two years and a monthly summary is required to be sent to the Alameda County Agricultural Commissioner's Office for applications done by City staff.

2. **Yearly Reports**
   The Office of Parks, Recreation, and Cultural Affairs will use the monthly reports provided to it by the Office of Public Works and the Office of Fire Services to prepare a report for City Council. This report will include:

   A. detailed pesticide usage data,
   B. the reduction in pesticide use and how well the target of a 5% yearly reduction was met,
   C. discussions of methods being used to reduce pesticide usage by City departments,
   D. an update of this IPM Plan.

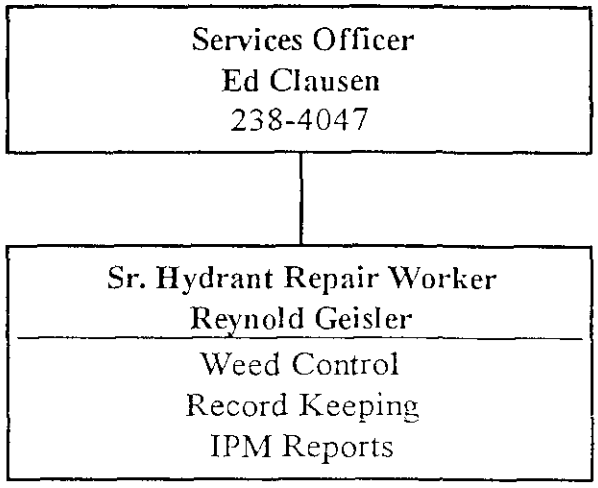
   This report will also be presented to the Alameda County Agricultural Commissioner's Office for its comment and review.

City of Oakland
Office of Fire Services

Integrated Pest Management Plan

May 1996

Implementation Structure



Persons Authorized to Perform Pest Control Activities

Only employees who have a current Qualified Pesticide Applicator Certificate will apply pesticides. City employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use.

Weeds Around Fire Hydrants in the Oakland Hills

Location/Host	Action Threshold	Action
The area surrounding a fire hydrant that is: 1. 15' from the Fire Hydrant 2. Between the Fire Hydrant & the Street	50% of the area covered with weeds that are 1' or more in height.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

In the hills of Oakland, the area around fire hydrants needs to be kept relatively free of weeds. Weeds in this area can become large enough to obscure the hydrant from view which makes it difficult to find and use when it is needed for fire control. The fire hydrant needs to be visible from the street so fire crews can easily find them. The area around the fire hydrant also needs to be kept clear for proper operation of the hydrant. Weeds are primarily a problem in the hills area.

The areas around fire hydrants are not currently mulched. Hydrants that could benefit from mulch around them need to be identified and mulched as time and resources permit. Mulching helps to keep weed seeds from germinating, and thus reducing the need for pesticide applications.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds Around Fire Stations

Location/Host	Action Threshold	Action
Areas of Bare Ground	Mulch is less than 4" thick.	Replenish mulch to a 6" or greater depth.
	Weeds cover 25% of the surface of the ground.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

There are some areas of bare ground around fire stations that occasionally need weed control. These areas are not currently covered with mulch. As time and resources permit these areas should be covered with mulched. Mulching helps to keep weed seeds from germinating, and thus reducing the need for pesticides.

When weed control is necessary, mechanical control is the preferred alternative.

City of Oakland
Office Of Parks, Recreation, and Cultural Affairs
&
Office of Public Works

Structural Integrated Pest Management Plan

May 1996

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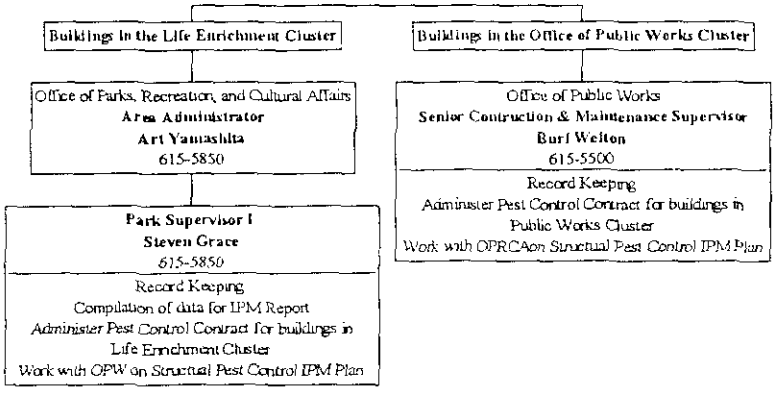

PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES

The City uses contractors to apply pesticides for the control pests of buildings. The contractors must be licensed by the State of California as Pest Control Operators. State law requires that employee's of these companies be properly trained in each pesticide that they are to mix or apply.

City employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use.

GENERAL PRINCIPLES

Buildings are not a natural habitat for pests, but they can provide be attractive places for pests to live. Buildings can be made less attractive with proper sanitation and building maintenance.

1. **Exclusion**
   Crack and crevices that pests can enter should be caulked or repaired. Window screens should be kept in good condition to keep out flying insects. These insects can be a pest themselves, but they also provide food for spiders which can also be a pest.

   Pests can be unknowingly be brought into buildings by people. Potted plants, cut flowers, and other material should be inspected for insects or spiders.

2. **Sanitation**
   Food should be properly stored and disposed of. Spills should be promptly cleaned up to prevent them from becoming food for pests. The areas around stoves, sinks, refrigerators, and other areas used for food preparation or consumption need to be kept clean. Garbage containers that are used to dispose of empty food containers or uneaten food need to be emptied frequently, and provided with a tight fitting lid. The area around dumpsters should be kept clean, and the lid should be kept closed.

ARACHNIDS

Black Widow Spiders

Location/Host	Action Threshold	Action
Inside of Buildings	A black widow spider is identified.	Apply an acaricide to the spider or its web.

It is unlikely that black widow spiders will be encountered. They are only found in dark locations. If a black widow is found, it is acceptable to use an acaricide. To be effective the acaricide must be applied directly to the spider or its web.

Other Spiders

Location/Host	Action Threshold	Action
Inside of Buildings	Spiders or webs are observed.	Vacuum the spider & its web.

Most spiders are harmless to people and are often beneficial, but they need to be controlled because their webs can be a nuisances and many people have an aversion to spiders. Pesticides are not usually necessary to control spiders. In most situations, mechanical removal, proper sanitation and building maintenance will keep them under control.

INSECTS

Argentine Ants

Location/Host	Action Threshold	Action
Food Preparation & Storage Areas	Ants are observed.	Wipe up ants with soapy water, and/or use insecticidal bait.
	A definable trail is observed.	Treat building's foundation, surrounding sidewalk cracks, and crawl space with an insecticide. If possible, only treat those areas near the food preparation areas.
Other Areas	A definable trail is observed.	Wipe up ants with soapy water, and/or use insecticidal bait.
	More than one definable trail is observed.	Treat foundation, sidewalk crack, and crawl space under building with an insecticide. If possible, only treat those areas near the ant trails.

Insecticides used indoors do not provide long term control. Insecticidal bait is taken to the nest, where it can be more effective. Soapy water can be used to get rid of ants that are an immediate problem.

Insecticides can be used outside of the building to provide a barrier to ant invasions. The foundation, cracks in pavement surrounding buildings, and the crawl space that is under some buildings are areas were an insecticide can help control ants. If ants are only a problem in a portion of a building, it may be possible to only treat the part of the building that is near the problem area.

Cockroaches

Location/Host	Action Threshold	Action
Food Preparation & Storage Areas	2 Cockroaches in any sticky trap.	Use insecticidal bait, or treat with an insecticide.
Other Areas	5 Cockroaches in any sticky trap.	Use insecticidal bait, or treat with an insecticide.

To determine when control of cockroaches is warranted, a system of monitoring is necessary. In areas where cockroaches are a known or suspected problem, sticky traps need to be put out to evaluate the problem. After 24 - 48 hours, if the number of cockroaches in any trap reaches the action threshold, either the use of insecticidal bait or treatment of the area with an insecticide is warranted. Where insecticidal bait may be effective it is the preferred alternative.

Fleas

Location/Host	Action Threshold	Action
Carpeted Floors.	When fleas are found.	Vacuum the area weekly or more frequently.
	2 weeks after initially spotting fleas, and carpet has been vacuumed at least 3 times.	Apply an insecticide.

Vacuuming is effective in controlling adult fleas, but termite larvae are resistant to being picked by the vacuum. Therefore, vacuuming must be repeated frequently. Fleas can survive in the vacuum bag, so the vacuum bag should be disposed of in a sealed plastic bag.

Termites

Location/Host	Action Threshold	Action
Wooden parts of Buildings	Evidence of termite activity is observed.	Replace damaged wood and treat with an insecticide.

When termites are found in the structure of a building, prompt action is required to prevent the termites from spreading throughout the building and causing significant damage. Any conditions that exist that make the structure susceptible to termite attacks need to be corrected.

VERTEBRATES

Rats & Mice

Location/Host	Action Threshold	Action
Inside of Buildings	Evidence of rats or mice is observed.	Put out traps or bait stations in the affected areas.

When rat or mouse control is necessary, traps are the preferred alternative.

City of Oakland
Office of Parks, Recreation, and Cultural Affairs

Integrated Pest Management Plan
for
Lake Chabot Golf Course

May 1996

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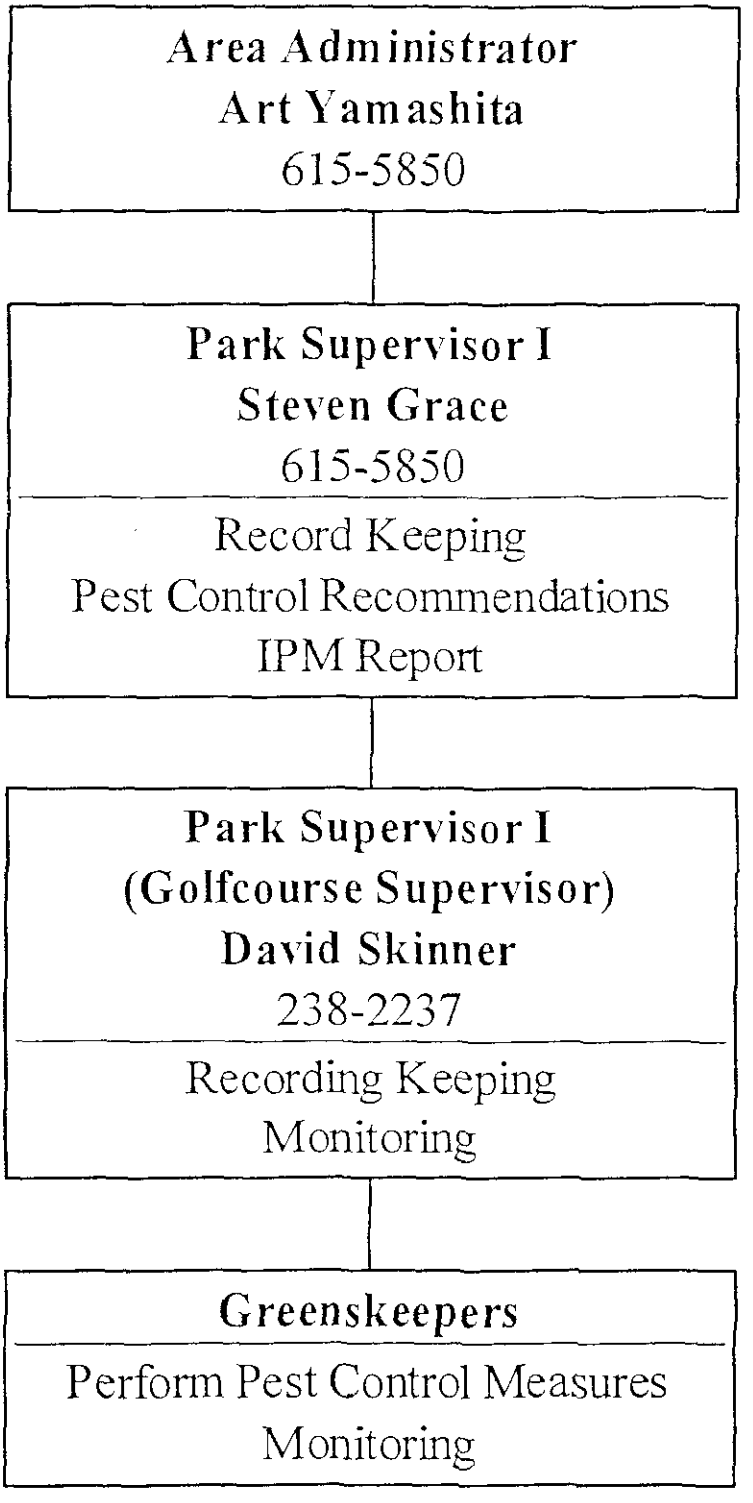

PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES

Only employees who have a current Qualified Pesticide Applicator Certificate will apply pesticides. City employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use.

Pest control operations that take place in a golf course are considered to be an agricultural use by the State of California; therefore, A Pest Control Recommendation is required for all pest control operations. This Recommendation is written by a Pest Control Adviser who is licensed by the State of California. If a current Recommendation is not in effect for the planned method of control, a new Recommendation must be acquired from the Community Program Facilitator in charge of Integrated Pest Management.

PLANTS

Weeds in Mulched Bare Areas

Location/Host	Action Threshold	Action
Areas kept bare of vegetation.	Mulch is less than 4" thick.	Replenish mulch to a 6" or greater depth.
	Weeds cover 5% of the surface of the ground.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds in Unmulched Bare Areas

Location/Host	Action Threshold	Action
Areas kept bare of vegetation.	Weeds cover 5% of the surface of the ground.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

When weed control is necessary, mechanical control is the preferred alternative.

Turf Edges

Location/Host	Action Threshold	Action
Turf Edges		
Edges that can be edged with a mechanical edger.	Grass is growing in from edge 1".	Use a mechanical edger to maintain the edge.
Edges that cannot be edged with a mechanical edger.	Grass is growing in from edge 3".	Mechanically remove the encroaching grass, or spray the encroaching grass with Roundup in accordance with the current Pest Control Recommendation.

Turf edges that are overgrown are unsightly and can interfere with the activities of the adjoining area. Encroaching grass can decrease the width of a path, make valve covers and other access covers hard to open or can hide them altogether.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds Around Sprinkler Heads

Location/Host	Action Threshold	Action
3" band around irrigation heads	Weeds (including grass) growing in at least 1" or are interfering with the sprinkler.	Mechanically remove the encroaching weeds, or spray the 3" band with Roundup in accordance with the current Pest Control Recommendation.

Weeds (including grass) are a constant problem around sprinkler heads. They interfere with the proper operation of the heads by not allowing the heads to pop up, the operating mechanism is stopped from moving, or the stream of water is obstructed. This results in the inadequate watering of turf. To combat this problem, a 2" - 3" band is kept free of weeds and encroaching grass.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds in Paths & Roads

Location/Host	Action Threshold	Action
Cracks in paved paths & roads (asphalt or concrete)	Weeds cover 5% of the surface area.	Mechanically remove the weeds, or spot spray with Roundup in accordance with the current Pest Control Recommendation.
	Weeds are observed and Roundup is being used in adjacent areas.	Spot spray with Roundup in accordance with the current Pest Control Recommendation.
Unpaved paths (e.g. crushed rock)	Weeds cover 5% of the surface area.	Mechanically remove the weeds, or spot spray with Roundup in accordance with the current Pest Control Recommendation.

Weeds in paths and roads can be very unsightly and need to be controlled. Paving prevents weeds from becoming established, but when cracks develop, weeds appear. Just a few weeds can be very unsightly, but do not justify initiating a spray job in themselves. However, if Roundup is being sprayed in the area for another reason, it is appropriate to spot spray these weeds.

When weed control is necessary, mechanical control is the preferred alternative.

Broadleaf Weeds in Turf

Location/Host	Action Threshold	Action
Greens	Weeds cover 10% of the green.	Spray the green with a selective herbicide in accordance with the current Pest Control Recommendation.
Tees	Weeds cover 20% of the surface of the tee.	Spray the tee with a selective herbicide in accordance with the current Pest Control Recommendation.
Fairways	English Daisies cover 25% of the surface of the fairway.	Spray the fairway with a selective herbicide in accordance with the current Pest Control Recommendation.

FUNGI

Turfgrass Fungi

Location/Host	Action Threshold	Action
Greens & Tees	1 square foot of turf with symptoms of a fungal disease per 1000 square feet..	Spray the green with a fungicide in accordance with the current Pest Control Recommendation.
Fairways	50 square feet of turf with symptoms of a fungal disease per 1000 square feet.	Spray the green with a fungicide in accordance with the current Pest Control Recommendation.

The area with symptoms noted above can be made up of many smaller areas that add up to the required area size.

Once a fungal disease attacks, it can spread very quickly. For this reason a quick application of a fungicide is required. In an effort to prevent fungal outbreaks, a fertilizer with a fungicide as one of its ingredients is also being used. This fertilizer use is included in all IPM pesticide use reports.

INSECTS

Sod Webworms

Location/Host	Action Threshold	Action
Greens & Tees	3 square feet of turf with symptoms of sod webworms per 1000 square feet.	Spray the green with an insecticide in accordance with the current Pest Control Recommendation.

The area with symptoms noted above can be made up of many smaller areas that add up to the required area size.

VERTEBRATES

Gophers & Ground Squirrels

Location/Host	Action Threshold	Action
Greens, Tees, & Areas within 30 feet of a Green	1 gopher or ground squirrel hole in the green or tee.	Use traps or poison baits in accordance with the current Pest Control Recommendation.
Fairways	6 gopher or ground squirrel holes per thousand square foot area.	Use traps or poison baits in accordance with the current Pest Control Recommendation.

The holes created by gophers and ground squirrels create an extreme tripping hazard. For this reason, Park Services has a zero tolerance level for these pests on greens and tees.

When gopher or ground squirrel control is necessary, trapping is the preferred alternative.

City of Oakland
Office of Parks, Recreation, and Cultural Affairs

Integrated Pest Management Plan
for
Parks, Median Strips,
& Other Outdoor Facilities

May 1996

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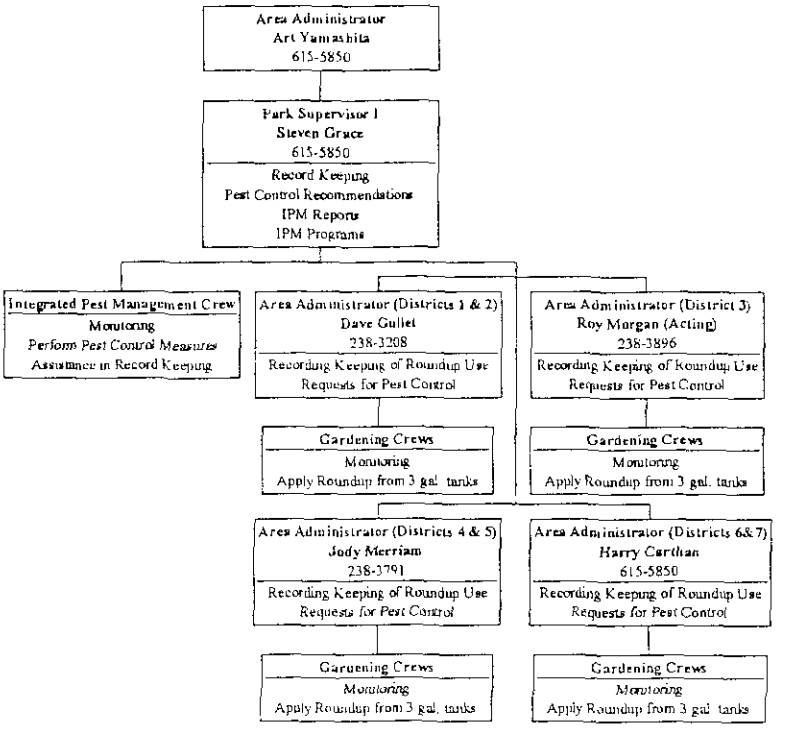


PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES

Only City employees who have a current Qualified Pesticide Applicator Certificate will apply pesticides. The only exception to this will be the use of Roundup in 3 gallon tanks. Roundup when mixed and applied from 3 gallon tanks may be applied by city employees who have received annual training in its proper use. .

City employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use.

For pest control measures that take place in parks, golf courses, median strips, right-of ways, and any other area that is considered an agricultural use by the State of California, a Pest Control Recommendation is required. This Recommendation is written by a Pest Control Adviser who is licensed by the State of California. If a current Recommendation is not in effect for the planned method of control, a new Recommendation must be acquired from the Community Program Facilitator in charge of Integrated Pest Management.

AREAS OF SPECIAL CONSIDERATION

Rotary Nature Center & Wildlife Refuge

Due to concern over the effect that pesticides may have on the waterfowl that utilize the wildlife refuge at the Rotary Nature Science Center in Lakeside Park, the following special precautions will be taken:

1. Any pesticide that is hazardous to waterfowl according to the pesticide's label or Material Safety Data Sheet (MSDS) will not be used in this area.

2 No Pesticides will be used in this area between March 1 and July 1. Only mechanical or cultural methods of pest control are to be used during this time. This is the time of year that these birds are nesting and raising their young. They are the most vulnerable at this time, and so an extra level of precaution is taken.

PLANTS

Annual Bluegrass (*Poa annua*) in Bowling Greens

Location/Host	Action Threshold	Action
Bermuda Grass Bowling Greens at Lakeside Park	Weeds cover 10% of the green.	Spray the greens in January with Roundup in accordance with the current Pest Control Recommendation.

The Lawn Bowling Greens are covered with a Bermuda Grass turf. This turf is invaded by Annual Bluegrass in the spring and fall. This weed creates bumps in the green that disrupt play. January is the ideal time to control this weed, because Roundup will control the Annual Bluegrass without significantly affecting the Bermuda Grass turf.

Broadleaf Weeds in Turf

Location/Host	Action Threshold	Action
Putting & Bowling Greens	Weeds cover 10% of the green.	Spray the green with a selective herbicide in accordance with the current Pest Control Recommendation.
Athletic Fields	Weeds cover 10% of the green.	Spray the field with a selective herbicide in accordance with the current Pest Control Recommendation.
Newly Established Turf	Weeds cover 7% of the green.	Spray the turf with a selective herbicide in accordance with the current Pest Control Recommendation.

Other Turf	Weeds cover 25% of the green.	Spray the turf with a selective herbicide in accordance with the current Pest Control Recommendation.

Weeds in Mulched Bare Areas

Location/Host	Action Threshold	Action
Median Strips & other areas kept bare of vegetation.	Mulch is less than 4" thick.	Replenish mulch to a 6" or greater depth.
	Weeds cover 5% of the surface of the ground.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

Weeds in median strips and other areas that are devoid of desirable vegetation need to be kept relatively free of weeds. Weeds contribute to the impression that the area is unkept which is not in accordance with the city's policy of maintaining a clean and aesthetically pleasing city.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds in Unmulched Bare Areas

Location/Host	Action Threshold	Action
Median Strips & other areas kept bare of vegetation.	Fall & Spring: Weeds cover 1% of the surface of the ground.	Spray the area with a pre-emergent herbicide in accordance with the current Pest Control Recommendation.
	Weeds cover 5% of the surface of the ground.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

Weeds in median strips and other areas that are devoid of desirable vegetation need to be kept relatively free of weeds. Weeds contribute to the impression that the area is unkept which is not in accordance with the city's policy of maintaining a clean and aesthetically pleasing city.

There are some areas that are not currently mulched but could be, theses areas should be mulched as time and resources permit. Mulching helps to keep weed seeds from germinating, and thus reducing the need for pesticides.

Mechanical control is preferable to the use of Roundup.

Turf Edges

Location/Host	Action Threshold	Action
Turf Edges		
Edges that can be edged with a mechanical edger.	Grass is growing in from edge 1".	Use a mechanical edger to maintain the edge.
Edges that cannot be edged with a mechanical edger.	Grass is growing in from edge 3".	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

Turf edges that are overgrown are unsightly and can interfere with the activities of the adjoining area. Encroaching grass can decrease the width of a path, make valve covers and other access covers hard to open or can hide them altogether.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds Around Sprinkler Heads

Location/Host	Action Threshold	Action
3" band around irrigation heads	Weeds (including grass) growing in at least 1" or are interfering with the sprinkler.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

Weeds (including grass) are a constant problem around sprinkler heads. They interfere with the proper operation of the heads by not allowing the heads to pop up, the operating mechanism is stopped from moving, or the stream of water is obstructed. This results in the inadequate watering of turf. To combat this problem a 2" - 3" band is kept free of weeds and encroaching grass.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds in Paths & Roads

Location/Host	Action Threshold	Action
Cracks in paved paths & roads (asphalt or concrete)	Weeds cover 5% of the surface area	Mechanically remove the weeds, or spot spray the weeds with Roundup in accordance with the current Pest Control Recommendation.
	Weeds are observed and Roundup is being used in adjacent areas.	Spot spray the weeds with Roundup in accordance with the current Pest Control Recommendation.
Unpaved paths (e.g. crushed rock)	Weeds cover 5% of the surface area.	Mechanically remove the weeds, or spot spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

Weeds in paths and roads can be very unsightly and need to be controlled. Paving prevents weeds from becoming established, but when cracks develop, weeds appear. Just a few weeds can be very unsightly, but do not justify initiating a spray job in themselves. However, if Roundup is being sprayed in the area for another reason, it is appropriate to spot spray these weeds.

When weed control is necessary, mechanical control is the preferred alternative.

PLANT DISEASES

Turfgrass Fungi

Location/Host	Action Threshold	Action
Putting, Bowling, & Croquet Greens	1 square foot of turf with symptoms of a fungal disease per 1000 square feet..	Spray the green with a fungicide in accordance with the current Pest Control Recommendation.

Once a fungal disease attacks, it can spread across the green very quickly. For this reason a quick application of a fungicide is required.

Diseases on Bearded Iris

Location/Host	Action Threshold	Action
Bearded Iris	25% of the foliage is covered with signs or symptoms of fungal leaf spot or rust.	Spray the plants with a fungicide in accordance with the current Pest Control Recommendation.

When a bearded iris is attached by fungal leaf spot or rust, it can quickly affect the whole plant making it unsightly. To keep this from happening, the plant needs to be sprayed with a fungicide.

Powdery Mildew

Location/Host	Action Threshold	Action
Morcom Rose Garden Roses and Lakeside Park Show Garden Flowers (e.g. Fuchsias and Dahlias)	10% of foliage with signs of mildew.	Spray the affected plants with a fungicide in accordance with the current Pest Control Recommendation.

Rust

Location/Host	Action Threshold	Action
Morcom Rose Garden Roses and Lakeside Park Show Garden Flowers (e.g Fuchsias and Dahlias)	25% of foliage with signs of rust.	Spray the affected plants with a fungicide in accordance with the current Pest Control Recommendation.

Blackspot

Location/Host	Action Threshold	Action
Morcom Rose Garden Roses	Spots ¼" in size.	Spray the affected plants with a fungicide in accordance with the current Pest Control Recommendation.

MOLLUSKS

Snails

Location/Host	Action Threshold	Action
Flats of annuals waiting to be planted.	Snails are observed in the course of other duties.	Pick snails off plants and mechanically destroy.
	½ % of plant material eaten.	Pick snails off plants and mechanically destroy, or apply snail bait in accordance with the current Pest Control Recommendation, or control by mechanical means.
Annual Flower Beds	Snails are observed in the course of other duties.	Pick snails off plants and mechanically destroy.
	5% of plant material eaten.	Apply snail bait in accordance with the current Pest Control Recommendation, or control by mechanical means.

While flats of annuals are waiting to be planted, they are very vulnerable to destruction by snails. The plants are young, succulent and growing very close together. Therefore, to prevent a massive loss of plants, the snails must be controlled when a very small level of activity is observed.

When snail control is necessary, mechanical control is the preferred alternative.

ARACHNIDS

Mites

Location/Host	Action Threshold	Action
Morcom Rose Garden Roses	Spring & Early Summer. 70% of roses with symptoms.	Spray all roses with an insecticide in accordance with the current Pest Control Recommendation.

INSECTS

Cutworms

Location/Host	Action Threshold	Action
Areas that are to be planted with annual flowers.	10 cutworms are found per sq. yrd. of area that is being prepared for planting.	Destroy the cutworms by mechanical means or with an insecticide in accordance with the current Pest Control Recommendation.

Hornets & Wasps

Location/Host	Action Threshold	Action
All areas maintained by the Office of Parks, Recreation, and Cultural Affairs.	A nest is observed within 10' of the ground.	Destroy the nest by mechanical means or with a pesticide in accordance with the current Pest Control Recommendation.
	A nest is observed on a building.	Destroy the nest by mechanical means or with a pesticide in accordance with the current Pest Control Recommendation.

Hornets, and Wasps present a significant hazard to the users of our parks. Their sting can cause a sore spot on most people and can be life threatening to others. Since these are colonial insects, they are concentrated in their nests. This makes the nest both the focal point of the hazard, and the ideal point of control. Nests that are within 10' of the ground or on a building pose the greatest hazard to the public.

When hornet or wasp control is necessary, mechanical control is the preferred alternative if it can be done safely.

Bees

Location/Host	Action Threshold	Action
All areas maintained by the Horticulture Section.	A hive is observed within 10' of the ground.	Contact one of the beekeepers on file, and have them remove the hive.
	A hive is observed on a building.	Contact one of the beekeepers on file, and have them remove the hive.

Even though bees are beneficial in the pollination of flowers, they must be controlled due to the hazard they present. Their sting can cause a sore spot on most people and can be life threatening to others. Since these are colonial insects, they are concentrated in their hives. This makes the hive both the focal point of the hazard, and the ideal point of control. Hives that are within 10' of the ground or on a building pose the greatest hazard to the public. There are local beekeepers who will remove hives for a fee. The use of this service allows us to control this pest without the use of pesticides.

Sucking Insects

Location	Action Threshold	Action
Lakeside Park Show Gardens, Morcom Rose Garden Roses	25% of foliage with symptoms from sucking insects or mites.	Use a pesticide in accordance with the current Pest Control Recommendation.

VERTEBRATES

Gophers & Ground Squirrels

Location/Host	Action Threshold	Action
Trafficked Areas and areas that surround them (e.g. Athletic Fields, and Lawns)	1 hole in an area of any size.	Use poison bait or traps in accordance with the current Pest Control Recommendation.
Non-trafficked Areas (e.g. shrub beds)	15 holes per thousand square foot area.	Use poison bait or traps in accordance with the current Pest Control Recommendation.

The holes created by gophers and ground squirrels create an extreme tripping hazard to park users in trafficked areas. For this reason, Park Services has a zero tolerance level for these pests in areas that the public would be walking or playing on. This same threshold is used for the surrounding area because these pests are very mobile and would soon be in the trafficked areas.

When gopher or ground squirrel control is necessary, trapping is the preferred alternative.

Rats & Mice

Location/Host	Action Threshold	Action
All outdoor areas maintained by the Office of Parks, Recreation, and Cultural Affairs	A rat or mouse is observed.	Use traps or poison bait in accordance with the current Pest Control Recommendation.

When rat or mouse control is necessary, trapping is the preferred alternative.

Cats

Location/Host	Action Threshold	Action
All areas maintained by the Office of Parks, Recreation, and Cultural Affairs	A cat is determined to be living in one of our parks.	Live trap and turn them over to one of the interested parties who will try to find homes for them.

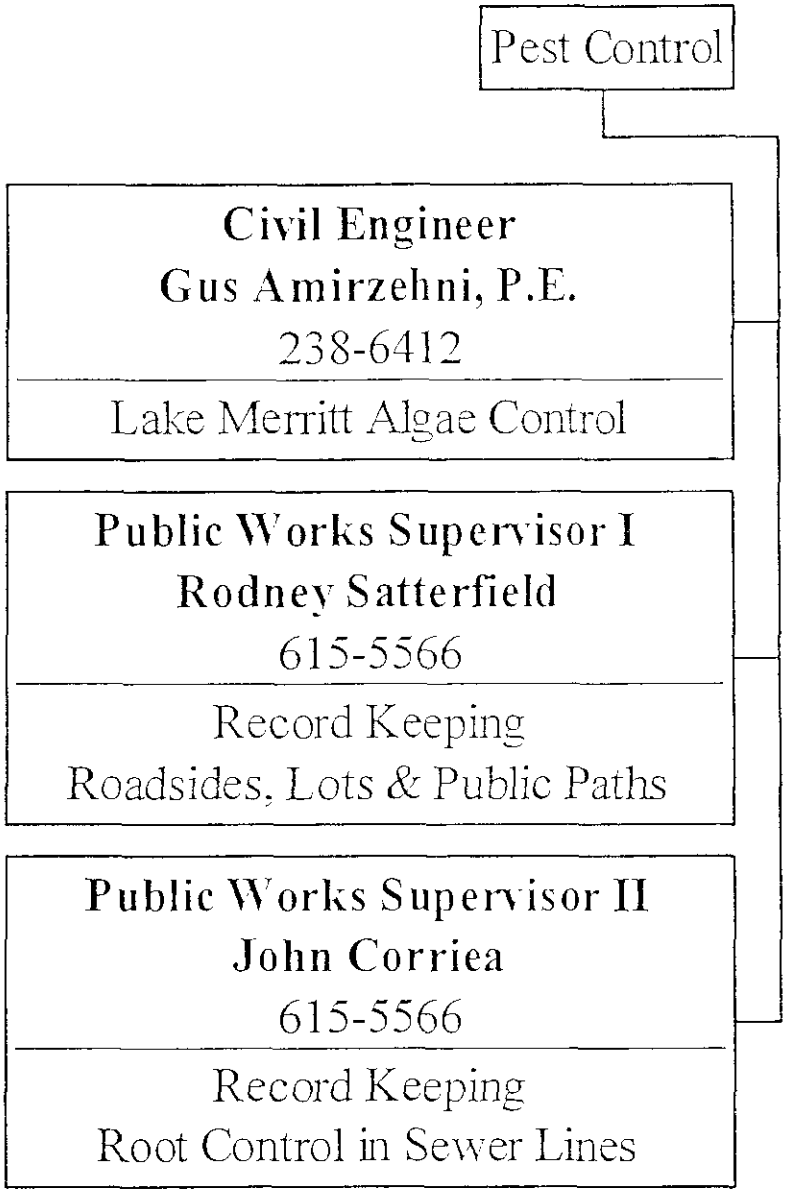
Stray cats often make their way to our parks, and certain members of the public feed them out of concern for their welfare. This in turn attracts more cats, which compounds the problem Cats are an improper inhabitant of our parks. They are domesticated animals which need a level of care that cannot be provided in our parks, so the cats that inhabit our parks are unhealthy and could potentially pose a health hazard. In addition, these cats do not contribute to what our parks were designed to provide. For this reason, we are attempting to keep these cats out of our parks. Feeding of cats by the public is discouraged, and cats are trapped and released to interested parties who attempt to find homes for them.

City of Oakland
Office of Public Works

Integrated Pest Management Plan

May 1996

Implementation Structure



PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES

Only employees who have a current Qualified Pesticide Applicator Certificate will apply pesticides. City employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use

The City uses contractors to control algae in Lake Merritt. The contractors must be licensed by the State of California as Pest Control Operators. State law requires that employee's of these companies be properly trained in each pesticide that they are to mix or apply.

LAKE MERRITT

Algae Control

Location/Host	Action Threshold	Action
Shallow Water Shelf around Lake Merritt.	Algae has grown to the extent that it is ready to mat up.	Treat the algae with an algaecide (1995 only) and/or mechanically grind up the algae.

The shallow water around the edge of Lake Merritt promotes the growth of a algae. When the algae decomposes, it creates an obnoxious smell and an eyesore that greatly detracts from the beauty of the lake. To combat this problem, the amount of algae in the lake needs to be kept down to a level where it will not produce an undesirable smell.

The algaecide currently being used (Aquazine) is no longer available. After the current supply is used, only mechanical methods will be used to control algae.

ROADSIDES, LOTS, & PUBLIC PATHS

Weeds

Location/Host	Action Threshold	Action
Areas kept bare of vegetation.	Weeds cover 15% of the surface of the ground.	Mechanically remove the weeds, or spray the weeds with Roundup & Surflan in accordance with the current Pest Control Recommendation.

The areas maintained by Public Works are not currently mulched. Areas that could benefit from a layer of mulch need to be identified and mulched as time and resources permit. Mulching helps to keep weed seeds from germinating, and thus reducing the need for pesticide applications.

When weed control is necessary, mechanical control is the preferred alternative.

SEWER LINES

Tree Roots in Sewer Lines

The sewer lines in the hills area are cleared of tree roots annually to keep them from clogging up. These lines are fairly small (4" - 6") and are often are obstructed by tree roots. A file is kept on each of the sewer lines in the hills. Each sewer is categorized as:

1. Free Flowing
2. Clogged
3. or, Severely Clogged.

These categories are based on the condition of the sewer line before it was cleared the previous year.

If the sewer line is categorized as free flowing, the sewer line is mechanically cleared. If there are too many roots in the line to be mechanically cleared, Angus Hot Rod is used to soften up the roots in the sewer line. The rooter can then more easily clear the line. If the line is classified as clogged or severely clogged, Angus Hot Rod is applied to the line before any rooting is attempted. A "severely clogged" line may require more Angus Hot Rod to adequately soften the roots for cleaning than a "clogged" line. After the line is cleared the condition of the line before it was cleared is recorded for use in predicting the requirements for the next years cleaning.

Angus Hot Rod is a category 1 pesticide. The City has a policy of not using category 1 pesticides. A search needs to be completed to determine if a less toxic alternative is available.

OAKLAND CITY COUNCIL

RESOLUTION N0._____C.M.S.

INTRODUCED BY COUNCILMEMBER Jean Quan

RESOLUTION AUTHORIZING A LIMITED EXEMPTION TO THE INTEGRATED PEST MANAGEMENT POLICY TO USE HERBICIDES ON CITY OWNED LAND IN THE WILDFIRE PREVENTION DISTRICT AND OTHER CITY PROPERTIES IDENTIFIED BY THE FIRE MARSHAL AS AREAS OF HIGH FIRE HAZARD

WHEREAS, in 1997 the Oakland City Council approved the implementation of a comprehensive Integrated Pest Management (IPM) policy and passed Resolution No. 73968 C.M.S., that prohibits the use of pesticides on City property except as specifically exempted; and

WHEREAS, the Oakland Fire Department is responsible for reducing wild land fuels through vegetation management in Oakland's Wildfire Prevention District; and

WHEREAS, Oakland's Wildfire Prevention District includes City owned public open space such as Joaquin Miller Park, Knowland Park, King Estates Park, Dimond Canyon, Dimond Park, rugged canyons, public pathways, fuel breaks, roadsides, medians and steep hillsides; and

WHEREAS, there are a handful of other areas in Oakland with comparable topography and vegetation to the established Wildfire Prevention District with potentially the same high risk of fire danger; and

WHEREAS, the proliferation of non-native trees and shrubs such as blue gum eucalyptus, acacia, broom, and pampas grass creates a continuous fuel bed and fire hazard throughout the City's high fire hazard urban/wild land interface; and

WHEREAS, invasive, non-native trees and shrubs have few natural enemies, propagate readily in Oakland's climate and are resistant to eradication or control without the assistance of herbicides; and

WHEREAS, the offending trees and shrubs sprout profusely after hand or mechanical clearing and require cutting several times per year to fully abate growth; and

WHEREAS, the uncontrolled growth of non-native, invasive trees and shrubs constitutes a greater risk to native plant communities and wildlife habitat than does the use of selected herbicides as a component of a strategic vegetation management plan; and

WHEREAS, pulling or mechanically removing trees and shrubs may be ecologically damaging in some circumstances as it disturbs soil and creates an inviting seedbed for weeds. Herbicides leave soil intact and undisturbed, making it easier for native plants to survive as well as preventing erosion; and

WHEREAS, the Oakland City Council seeks to improve fire prevention and reduce wild land fuels within the City of Oakland in a cost effective and environmentally sensitive way; now therefore be it

RESOLVED: That the Oakland City Council hereby grants a limited exemption to the Integrated Pest Management policy by allowing the selective use of glyphosate (in formulations such as Round-up or Rodeo) and triclopyr (in formulations such as Garlon and Pathfinder) on City owned land in the Wildfire Prevention District; and be it

FURTHER RESOLVED: That whenever said herbicides are used, they shall only be painted or applied directly on the plant or tree stumps and shall only be used when conditions and best management practices demonstrate that a chemical treatment would be the most effective approach to control the following plant and tree species:

- all species of *Eucalyptus* (*E. globulus* (blue gum), red gum, and others)
- all species of Acacia (*A. dealbata* (silver wattle) and *A. melanoxylon* (blackwood acacia) and others); all non-native species of *Prunus* (plum and cherry)
- all species of *Ulmus* (elm)
- *Ilex aquifolium* (Holly)
- *Maytenus boaria* (Mayten)
- all species of *Cotoneaster* (*C. franchetii, C. lacteus, C. pannosa*)
- all species of broom and gorse: *Cytisus scoparius* (Scotch broom), *Genista monspessulana* (French broom), *Spartium junceum* (Spanish broom) and *Ulex europea* (gorse)
- *Crataegus monogyna* (Italian hawthorn)
- non-native species of blackberry: *Rubus discolor* (Himalayan blackberry) and *R. ulmifolius* (thornless blackberry)
- *Cortaderia selloana* and *C. jubata* (pampas grass, jubata grass), when these plants cannot be removed with a hand or power tools.
- other non-native, invasive species threatening native plant communities and wildlife habitat identified in the Wildfire Prevention District annual report;

and be it

FURTHER RESOLVED: That the selective use of herbicides on City owned land in the Wildfire Prevention District shall be implemented in accordance with best management practices, a strategic integrated vegetation management plan and other applicable local, state and federal requirements concerning the safe use of herbicides such as public notification, use of colored dye and return intervals; and be it

FURTHER RESOLVED: That all vegetation management service contracts shall stipulate compliance with the City's IPM policies and procedures, including those specific to the use of herbicides, and shall require that contractors provide the City with a copy of their state herbicide use reports;

FURTHER RESOLVED: That the limited exemption to the IPM policy to selectively use herbicides on city owned land in the Wildfire Prevention District shall be expressly limited to undeveloped, non-landscaped areas (excluding developed fields, playgrounds, picnic, and other high use areas as currently stipulated in the City's IPM policy); and be it

FURTHER RESOLVED: That only certain strategic areas outside the Wildfire Prevention Assessment District shall have a limited exemption to the IPM policy if the Fire Marshal determines that the proliferation of a non-native, invasive plant species is contributing to the creation of fuel beds that are a high fire hazard;

FURTHER RESOLVED: That the Fire Department shall annually prepare a report to the Wildfire Prevention Assessment District Advisory Board and the City Council on vegetation management efforts over the past twelve months that includes a detailed account of amounts and types of herbicide used and a vegetation management plan for the upcoming year.

IN COUNCIL, OAKLAND, CALIFORNIA, _____, 20_____

PASSED BY THE FOLLOWING VOTE:

AYES – BROOKS, BRUNNER, CHANG, DE LA FUENTE, NADEL, QUAN, REID, WAN

NOES-

ABSENT-

ABSTENTION-

ATTEST: _____
LATONDA SIMMONS
City Clerk and Clerk of the Council
Of the City of Oakland, California