



CITY OF SANTA BARBARA  
PARKS AND RECREATION DEPARTMENT

# **Pesticide Hazard And Exposure Reduction (PHAER) Zone Model for the City of Santa Barbara**

Adopted by City Council February 14, 2006

Developed by City Staff in conjunction with  
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## I. EXECUTIVE SUMMARY

***“The Santa Barbara community has a long history working to enhance and preserve the natural environment. In keeping with our community’s values and the need to reduce the burden that our daily activities have on the natural environment, the City must take a more proactive approach and work to develop a sustainable community. As recognized by the United Nations, a sustainable community is one that meets its needs without sacrificing the ability of future generations to meet their own needs. Sustainability can also be viewed as a way of making decision that includes more than traditional short-term cost/benefit issues but longer term and less tangible issues as well, such as pollution and natural resource depletion. A successful Sustainable City Program will require long term commitment by policy-makers and the community.”***

– First Annual Report on the City of Santa Barbara’s Sustainable City Program, January 10, 2006

In January 2004, the City of Santa Barbara adopted an Integrated Pest Management (IPM) Strategy for all city owned properties, including City parks, the Golf Course, and all Airport, Waterfront and Public Works building maintenance facilities operations. The primary goals of the City’s IPM program are to promote environmentally sensitive pest management while preserving assets and protecting the health and safety of the public and City employees. The use of pesticides is avoided wherever feasible and pesticides are utilized only as a last resort with the least toxic pesticides being the preferred choice. As a demonstration of the City’s commitment to reduced use of toxic materials, 19 City parks were designated as “pesticide free” by April 2005.

The IPM Strategy requires the development of a “Zone System” tied to the IPM Approved Materials List to limit pesticide use based on potential human exposure. In April 2005, the City Council directed Staff to develop a Pesticide Hazard And Exposure Reduction (PHAER) Model for the City of Santa Barbara. The City Council also directed Staff to move forward as progressively as possible with achieving the goal of having all City parks managed in a “Green,” or least toxic, manner.

The PHAER Zone Model, which is in various stages of implementation with 14 public agencies including the cities of Santa Monica, San Francisco, Ventura and Santa Maria, Ventura Unified School District, SBCC and UCSB, arose out of a need for a standardized, results-based pest management strategy. The objectives of the PHAER Zone System are to:

- Improve pesticide use communication to the public
- Prioritize risk-reduction activities
- Shift limited resources to areas of greatest need
- Provide flexibility to managers
- Create measures of IPM improvements for budgeting purposes
- Promote the good stewardship of public lands by the agencies that manage them

In May 2005, the City contracted with Phil Boise, Urban/Ag Ecology Consulting Services, to evaluate and map all City properties according to the PHAER Model. The consultant, working in collaboration with staff from the Parks and Recreation, Public

Works, Airport and Waterfront Departments, applied the mapping process and developed maps for all City-owned properties. Each PHAER map reflects zone assignments for each City Park and facility with recommendations for Green, Yellow, or Special Circumstance/Red Zones. The maps reflect how properties are currently, or could be, maintained according to the PHAER Model.

If adopted by City Council, the City's IPM Strategy will be modified to incorporate the PHAER Zone Model and PHAER maps. Maps will be updated on an annual basis as part of the IPM annual report to show the City's progress towards green management practices of City properties.

Increasingly, the City of Santa Barbara is being recognized by other agencies as a leader in the IPM field and acknowledged for the significant progress it is achieving through its IPM program. The Proposed PHAER Model for Santa Barbara documents the City's efforts to date and provides an intuitive and adaptive tool to be used in accomplishing future goals.

### City Parks

Officially, the City has 59 parks and 1765 acres of parkland, including all City Parks, Elings Park, sports facilities, community buildings, and the Santa Barbara Zoo (see complete Park and Recreation facility list in "Parks and Recreation Resources Inventory," Attachment 4). For the purposes of this report, the term "City Parks" reflects the 1,476 acres of parkland managed by the Parks Division, which includes 49 parks and 4 ball field facilities.

The proposed PHAER maps indicate that 98% of City park land could be designated Green, with 39 all-Green Parks, and 10 parks designated primarily Green with some Yellow Zone areas. Currently the City has 19 parks designated as "pesticide-free." If adopted as proposed, exceptional progress towards the City's goals for Green Parks and for the IPM program will be achieved. Parks with Yellow Zones reflect particular Parks Division maintenance challenges that, with time and resources can be transitioned to Green. This effort may require Sustainability Improvements such as installation of concrete mow strips or renovation of planter beds, increased staffing levels, or the development of effective green materials to combat specific horticultural problems.

The Parks and Recreation Department continues to pursue alternatives to reduce the estimated 10% increase in work load related to IPM.

- Sustainability - \$75,000 in sustainability projects will be completed in Fiscal Year 2006 including the Shoreline Park picnic area, Alice Keck Park Memorial Gardens, and Dwight Murphy Park.
- Green Team – With the improved fiscal outlook for the City, the Parks and Recreation Department is redirecting \$163,000 in department resources to create a Parks Green Team which will focus on mulching activities, which has

been determined to be one of the most effective methods to combat weed growth. A crew cab truck, enclosed loader, weed mower, several weed whips, and other smaller pieces of equipment to support IPM are being purchased through one-time salary savings originally targeted for anticipated budget reductions.

- Green Gardener Program – 22 out of 29 Parks Division Staff have been certified through the Green Gardener Program, a regional program offering education, training, certification and promotion of sustainable landscape practices. 10 Staff achieved Advanced Green Gardener certification.
- Park Volunteer Program – The department is in the process of implementing an expanded park volunteer program to support park maintenance and promote community awareness of alternative pest management strategies. Santa Barbara Beautiful, Pesticides Awareness and Alternatives Coalition (PAAC), the Creeks Program and Looking Good Santa Barbara have expressed interest in supporting the program, and other community organizations are being identified for partnering opportunities as well.

### Airport

Public areas maintained by the Airport are overwhelmingly mapped as Green Zones. Green Zones include the Airline Terminal, Long and Short Term Parking, Love Place Park and most other public areas outside the airfield fence. Small portions of right-of-way outside the airfield fence, where risk of human exposure is small are mapped as Yellow Zones. Restricted access airfield areas directly adjacent to runways, taxiways and safety areas are mapped as Special Circumstance Zones to allow maintenance in accordance with FAA requirements. Airport native habitat restoration areas are designated Yellow Zones to allow occasional application of Tier 2/Yellow herbicides. Herbicides are used as a tool in limiting competition by non-native species in an effort to encourage growth of native species. Restoration areas will transition to Green Zones as the native plants become established. Known mosquito producing basins, where ongoing abatement activities designed to limit human exposure to West Nile Virus, are also mapped as Yellow Zones. Transitional timelines will be assigned with further consideration in the upcoming year. Remaining large portions of the Goleta Slough, not being restored or treated for mosquito abatement are mapped as Green Zones.

### Waterfront

Landscaping in and around the Waterfront is somewhat limited. All of the parking lots serving the Waterfront have varying amounts of landscaping that is maintained by the Parks Division. Nevertheless, recreational use at the Waterfront is most likely the highest in the City and potential exposure to pesticides exists. Therefore, all areas frequented by the public are mapped as Green Zones. In an effort to maintain a high level of service in the Green Zones where public exposure is highest, medians and some hedges where public exposure is very low, have been mapped as Yellow Zones with a corresponding reduction in labor necessary to maintain the areas. In addition, the use of Yellow and Green pesticides in the Yellow Zones will be reduced with the

implementation of improvements such as concrete mow strips, mulching, and re-landscaping with low maintenance plants.

### Public Buildings and Facilities

The Public Works Department, through its Facilities Division, contracts with four local Pest Management Service providers to manage and control all aspects of Pest Control Services. They provide services to all City-owned facilities, supported by Facilities Building Maintenance Program. The contractors are required to adhere to the City's Integrated Pest Management "Green Zone" requirements. One particular aspect of Pest Control is the fumigation of buildings. Contractors who tent and fumigate City buildings are now required to use "Heat Process" to eliminate termite and other infestations from buildings. This "Heat Process" increases the cost of "fumigation" by 40%, but the benefits of using heat far outweigh the increased costs. These benefits include the removal of chemical from the process and the elimination of residual chemical effects on building occupants then the building is reoccupied.

Occasionally, various divisions in the Public Works Department will have a need to use "Yellow Zone" chemicals when they respond to "Safety and Health Issues" in the work zones. Public Works Staff are familiar with the IPM Exemption Process and comply with all aspects of the exemption process.

### Vector Control

Environmental Services Vector Control is responsible for protecting public health and safety from the threat of vectors present in the public right of way (ROW) within the city. This primarily constitutes abating bees, rodents, and mosquitoes that exist in the ROW that are in such a location they pose a public health threat. The locations of abatement and the use of pesticides are on an as needed basis and vary with need and the seasons. Vector Control utilizes a 100% "Green" method of pest control in abating vectors.

In certain situations where the location of a beehive is such that the beekeepers are not successful in removing the bees and the location of the hive is close enough to potentially cause harm to the public, Vector Control will apply to the IPM Committee for the use of a "Yellow" product, M-Pede.

The threat of West Nile Virus is of great public health concern. Mosquitoes are the vector for this disease which had its greatest impact in California in 2005. Vector Control abates mosquitoes through use of a "Green" material, *Bacillus Thuringiensis* subspecies *israelensis* (Bti). In the event of a public health emergency caused by environmental factors which produce out of control mosquito larval breeding where Bti would be less effective, Vector Control will apply for an emergency exemption for the use of one of two different "Yellow" products depending on the situation, Golden Bear Oil III or Altosid.

## Implementation Costs

Since its inception, the cost to implement the City's IPM Strategy has been a key consideration. The 2004 IPM Annual Report noted that implementation of the City's IPM program resulted in a 10 percent increased staff labor effort within the Parks and Golf Divisions alone. Implementation of the IPM Strategy without an increase in staffing levels has resulted in reduced park maintenance levels of service. The 39 all-Green Zone designations provide an ambitious approach to meeting the City's goal of having Green Parks, and assume that some increased staffing will be provided and that short-term capital improvements will be made to facilitate long-term efficient park maintenance and sustainable Green management. Also ambitious, given the range of pest problems and lack of available less toxic, effective alternatives, a number of improvements are recommended to transition parks with Yellow Zones to Green Zones over a period of time.

The report outlines proposed capital improvements for each site with cost estimates, other implementation costs including staffing and a park signage program to promote public awareness and education, possible funding sources, and recommendations for prioritizing resource allocation.

Foremost consideration must be given to improving sustainability in existing Green Zones to insure that Green Zones stay Green over the passing years, while transitioning Yellow Zones to Green as expeditiously as possible. While the decreased park maintenance service levels over the past year have not been noticeable to the general public, it is important that the Santa Barbara community and visitors continue to experience a high level of satisfaction with park conditions in order to retain public confidence in the IPM program, and to protect and preserve Santa Barbara's unique horticultural heritage for future generations.

## Recommendations

The report concludes with five recommendations:

1. Adopt the proposed PHAER Zone Model for the City of Santa Barbara and direct the Staff IPM Committee and IPM Advisory Committee to incorporate it into the City's IPM Strategy, and change terminology from "Pesticide Free" to "Green".
2. Approve the changes in IPM Strategy related to Approved Materials List, Signage and Posting, and Reporting as discussed in Chapter V, "How PHAER Model Works with City IPM Strategy."
3. Accept the proposed PHAER Zone maps and recommendations for Green, Yellow and Special Circumstance zones for City parks and properties.

4. Direct staff and the IPM Advisory Committee to work together in developing a strategy to transition the A.C. Postel Memorial Rose Garden in Mission Historic Park to Green given the high public exposure of that area.
5. With the development of the Fiscal Year 2007 budget
  - Approve a multi-year plan to fund Sustainability Improvements in Parks and transition Yellow Zones to Green
  - Increase Parks Division staffing for the Green Team (1 regular GMW, hourly staff up to 1 FTE)
  - Develop a .5 FTE IPM Coordinator position within one of the participating departments.
6. In future years, increase annual funding for Vegetative Fuels Management Program in City open space parks by \$50,000.

## II. INTRODUCTION

***“The Santa Barbara community has a long history working to enhance and preserve the natural environment. In keeping with our community’s values and the need to reduce the burden that our daily activities have on the natural environment, the City must take a more proactive approach and work to develop a sustainable community. As recognized by the United Nations, a sustainable community is one that meets its needs without sacrificing the ability of future generations to meet their own needs. Sustainability can also be viewed as a way of making decision that includes more than traditional short-term cost/benefit issues but longer term and less tangible issues as well, such as pollution and natural resource depletion. A successful Sustainable City Program will require long term commitment by policy-makers and the community.”***

– First Annual Report on the City of Santa Barbara’s Sustainable City Program, January 10, 2006

In January 2004, the City of Santa Barbara adopted an Integrated Pest Management (IPM) Strategy for all city owned properties, including City parks, the Golf Course, and all Airport, Waterfront and Public Works building maintenance facilities operations. Integrated Pest Management (IPM) is a strategy for reducing and/or eliminating the use of toxic pesticides for the control of unwanted pests and/or weeds. IPM incorporates a decision-making process for managing pests that uses monitoring to determine pest levels and tolerance thresholds, and combines biological, cultural, physical, and chemical tools to minimize health, environmental, and financial risks.

The primary goals of the City’s IPM program are to promote environmentally sensitive pest management while preserving assets and protecting the health and safety of the public and City employees. The use of pesticides is avoided wherever feasible and pesticides are utilized only as a last resort with the least toxic pesticides being the preferred choice. As a demonstration of the City’s commitment to reduced use of toxic materials, 19 City parks had been designated as “pesticide free” by April 2005.

### Developing a Zone System for the IPM Strategy

The IPM Strategy requires the development of a “Zone System” tied to the Approved Materials List to limit pesticide use based on potential human exposure. In April 2005, the City Council directed Staff to develop a Pesticide Hazard And Exposure Reduction (PHAER) Model for the City of Santa Barbara. The City Council also directed Staff to move forward as progressively as possible with achieving the goal of having all City parks managed in a “Green, or least toxic, manner.

The PHAER Model, recommended in the March 2005 first annual report on the IPM program, is consistent with the zone system requirements of the IPM Strategy. Developed by Phil Boise, Urban/Ag Ecology Consulting Services, with the assistance of the Santa Barbara Area Regional IPM Coalition, the PHAER Model is increasingly being evaluated by a number of local, regional and state public agencies with IPM programs. Currently, 14 agencies such as the cities of San Francisco, Santa Monica, and Santa Maria, the Ventura Unified School District and SBCC, as well as others are either

planning or implementing the PHAER model. The objectives of the PHAER Zone System are to:

- Improve pesticide use communication to the public
- Prioritize risk-reduction activities
- Shift limited resources to areas of greatest need
- Provide flexibility to managers
- Create measures of IPM improvements for budgeting purposes
- Promote the good stewardship of public lands by the agencies that manage them

The PHAER model assigns Green, Yellow, or a Special Circumstance/Red Zone designation to sites, or portions of sites, based upon the potential for exposure by humans and sensitive habitat to hazardous pesticides, and allows use of carefully screened materials by zone designation. For example, Green Zones are areas of high exposure potential, and only pesticides which show very limited human and environmental impacts may be used. Yellow Zones are areas with less potential of harm from exposure, and a broader range of materials are permitted.

#### Mapping City Properties for PHAER Zone

In May 2005, the City contracted with Phil Boise to evaluate and map all City properties according to the PHAER Model. The consultant, working in collaboration with staff from the Parks and Recreation, Public Works, Airport and Waterfront Departments, applied the mapping process and developed maps for all City-owned properties. The maps reflect how properties are currently, or could be, maintained according to the PHAER Model. Facilities with Yellow or Special Circumstances/Red zone designations received particular scrutiny throughout the mapping process and several meetings with the Staff IPM and City IPM Advisory committees. Throughout the process, justifications were challenged regarding use of alternative methods that might allow designation of a lower hazard zone. This was particularly true with the Airport, Waterfront areas, Golf Course, and City Parks.

Maps also include recommended improvements which will transition, or help transition, Yellow Zones to Green and ensure that the proposed Green Zones can be managed in a sustainable and cost-effective manner. Sustainability improvements, such as installing concrete mow strips along turf edges and renovating planter beds, will reduce labor hours from certain tasks to offset the higher labor demand required to maintain parks as Green Zones.

### **III. PESTICIDE HAZARD AND EXPOSURE REDUCTION (PHAER) ZONE SYSTEM**

This chapter, which explains the PHAER Zone Model, is taken directly from the Pesticide Hazard And Exposure Reduction (PHAER) Zones in the Landscape guidebook. The subsequent chapter, Chapter IV, “Integration of PHAER Model with City IPM Strategy”, discusses in more detail how the PHAER Model will be used and integrated with the City’s IPM Strategy.

The Pesticide Hazard and Exposure Reduction (PHAER) Zone System arose out of a need for a standardized, results-based reduced-risk pest management strategy. The PHAER Zone system addresses some common public agency needs and challenges with the implementation of IPM programs. These needs include: 1) decision and policy makers seek a way to measure progress towards risk reduction goals, 2) grounds managers need flexibility in their management options, 3) the community is entitled to information about the general level of pesticide hazard that could be present on a site-by-site basis, and 4) children and the environment deserve the highest degree of safety possible.

The objectives of the PHAER Zone System are to:

- Improve pesticide use communication to the public
- Prioritize risk-reduction activities
- Shift limited resources to areas of greatest need
- Provide flexibility to managers
- Create measures of IPM improvements for budgeting purposes
- Promote the good stewardship of public lands by the agencies that manage them

The PHAER Zone System establishes management zones on each site based upon the unique risk reduction goals of individual jurisdictions. These zones are designated as Green, Yellow, and Special Circumstance/Red Zones, with Green Zones providing the lowest potential for pesticide hazard and exposure. The PHAER Model designates specific materials<sup>1</sup> appropriate for use in established zones. Each Zone has a corresponding pesticide list determined by existing toxicological data.

#### **BENEFITS OF THE PHAER ZONE SYSTEM**

There are nine major benefits of the PHAER Zone System which offer positive incentives to diverse stakeholders. These include:

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<sup>1</sup> Tiered Materials lists are included in Attachment 1 of this report as well as the adopted City of Santa Barbara IPM Materials List, and materials lists for the cities of San Francisco and Seattle.

*Flexibility of Implementation:* The system allows decision makers to designate management priorities based upon their own needs. For example, a school may choose to map a parking lot as a Yellow Zone if the risk of exposure to children is low.

A pollution prevention officer might choose to map a parking lot as a Green Zone to prevent herbicides of concern from moving into a nearby creek system. The people carrying out pest management (grounds managers and technicians) will be able to choose from a list of materials that is common between jurisdictions and has been carefully screened for hazards.

*Budgeting Flexibility:* Decision-makers have the opportunity to set their risk-reduction goals and use their pest management budgets to accomplish what they deem most important. If a decision- or policy-maker wishes to designate partial or entire sites as Green Zones, this system provides measurable goals for long-term budgeting, as well as justification for budget requests.

*Highest Standard of Safety in Areas of Greatest Need:* When decision-makers map their site and choose which areas should become Green Zones, they are identifying areas with the highest potential for users to be exposed to pesticides. Every area that is transitioned to a Green Zone will offer the highest standard of safety for both its users and applicators.

*Communication Tool:* End-users of PHAER-managed sites will know what degree of pesticide hazard to expect in any location they visit, whether a school, a park, or playground. The transparency of full disclosure that will be available and posted on-site will allay concerns, answer questions, and potentially educate the public about reduced-risk practices. Further, during the testing of this system in various settings it has been discovered that many parks and schools are already using reduced-risk methods in a majority of their sites. This system has appeal to these entities as a tool to publicly demonstrate current good stewardship practices.

*Guidance for Material Selection:* The tiered pesticide list system allows applicators to clearly and simply evaluate the short and long term hazards of a material. This system helps applicators select safer materials that meet the same management goals (e.g. selecting a Yellow List selective herbicide instead of a Special Circumstance material).

*Incremental:* The PHAER System allows for incremental movement towards reduced-risk practices at a pace established by the involved stakeholders. This provides a fair starting point for new IPM programs, and a manageable timeline for improvement.

*Measurable:* A significant disadvantage of current IPM systems is the lack of measurement standards that are essential to gauging progress towards risk-reduction objectives. The PHAER System provides these measures in the form of expansion of Green Zones. An increase in the total area of Green Zones means a decrease in exposure to hazardous pesticides for humans and the environment. These standards can be measured, budgeted, and evaluated for compliance.

*Results-Based, Process Flexible:* The PHAER System addresses the final objectives of IPM programs, reducing exposure to hazardous pesticides while providing flexibility in the implementation. Implementers utilize IPM practices to achieve their measurable PHAER risk reduction goals.

*Public Education through Demonstration / Clean Water Compliance:* Many municipalities are obligated to provide outreach to the public about reducing impacts of pesticides on water quality. PHAER provides education through demonstration by showing the public attractive landscapes managed with reduced-risk materials. Regional municipalities have a platform to jointly encourage utilization of the Green List materials, pre-screened for water quality impairment.

## **PHAER MODEL MATERIALS AND SCREENING PROTOCOL**

The PHAER GREEN, YELLOW, and SPECIAL CIRCUMSTANCE MATERIALS LISTS (Attachment 1) have been developed using common screening protocols adopted by many municipalities throughout the country. The lists are not intended to be adopted in whole, but rather to serve as a reference list for zone management. For example, if a YELLOW MATERIAL contact herbicide is currently being used, the list may identify a GREEN MATERIAL contact herbicide that may be substituted, thus reducing the risk of the pesticide application.

This hazard screening protocol was developed by Dr. Philip Dickey of the Washington Toxics Coalition to screen pesticides for a number of human and environmental hazards, including carcinogenicity, reproductive toxicity, endocrine disruption, acute hazard, soil mobility, groundwater contamination potential, half-life, and eco-toxicity. The pesticides are sorted into four 'Hazard Tiers', with Tier 1 materials showing positive on one significant hazard indicator, Tier 2 materials having some hazard which may be mitigated with application methods. Tier 3 materials show 'negative' for all significant hazard indicators and Tier 4 materials demonstrating data gaps.

This screening protocol was adopted by the City/County of San Francisco, which included both a 'Hazard Tier' as well as a practical 'Use Category' overlay ('Allowed', 'Limited', 'Limited/Special Concern'). This step puts a

practical overlay to the hazard designation. However, both San Francisco and Seattle utilize nearly identical screening protocol.

The differences in the lists arise primarily from the initial screening of different materials. Each jurisdiction has screened materials that were in use at their own locations, thus the final lists reflect only those materials intended for use by these jurisdictions. The lists are not comprehensive of all pesticides, and should not be adopted in whole. Rather, jurisdictions seeking information about specific pesticides may find it within these lists, or may find an adequate substitute.

At the time of the printing of this handbook, this system is becoming widely accepted as the most comprehensive and practical screening protocol to date.

**GREEN PESTICIDES:**

- San Francisco Tier 3, Tier 2 Allowed Use
- Seattle Tier 3
- EPA Registration Exempt

**YELLOW PESTICIDES:**

- San Francisco Tier 2 Limited Use
- Seattle Tier 2

**SPECIAL CIRCUMSTANCE PESTICIDES:**

- San Francisco Tier 1, Tier 2 Limited Use/Special Concern
- Seattle Tier 1

Efforts are on-going to standardize the hazard screening protocol across California, and the PHAER method will adopt whatever system emerges from these activities. It is recommended to periodically review the cited information sources for updates and review of new materials.

## **PHAER ZONE EXEMPTION PROCESS**

Exemptions are situations where it would be acceptable to use a YELLOW LIST material in a Green Zone<sup>2</sup>. They include:

1. Emergency applications to protect human health and against significant loss of assets.
2. A one-time exemption may be provided by the IPM Coordinator to use a Yellow List pesticide in a Green Zone if ALL of the following conditions are met:

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<sup>2</sup> There is no provision to use a SPECIAL CIRCUMSTANCE material in a Green Zone. If a SC material is necessary, the zone designation should be changed to Yellow.

- A plan must be developed prior to application describing activities that will prevent the need for further Yellow List pesticide applications. (Field staff may be included in this planning to maximize their experience and to invest them in long-term IPM strategies).
- Application is followed by a 14-day period during which no access is expected, or access to site is restricted by construction fencing, closed gates, etc.
- Site must be posted for 14-day period to the signage standards of the Healthy Schools Act<sup>3</sup>.
- Specific pest situations, as described in Figure 4.

These steps are established to allow management flexibility without compromising confidence in the high standard of safety provided by Green Zones. If the pest situation can not be solved with a one-time YELLOW LIST material and habitat modification, the site zone designation should be changed from Green to Yellow.

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<sup>3</sup> Sites should be posted to the signage standards, not the timing standards (24/72 hours) of the H.S.A. Application warning sign template:  
[http://www.cdpr.ca.gov/cfdocs/apps/schoolipm/tools\\_templates/33\\_posting.pdf](http://www.cdpr.ca.gov/cfdocs/apps/schoolipm/tools_templates/33_posting.pdf)  
 Legislative text: "17612. (d) The...designee shall post each area of the...site where pesticides will be applied with a warning sign. The warning sign shall prominently display the term "Warning/Pesticide Treated Area" and shall include the product name, manufacturer's name, the United States Environmental Protection Agency's product registration number, intended date and areas of application, and reason for the pesticide application. The warning sign shall be visible to all persons entering the treated area and shall be posted 24 hours prior to the application and remain posted until 72 hours after the application. In case of a pest control emergency, the warning sign shall be posted immediately upon application and shall remain posted until 72 hours after the application."  
[http://www.cdpr.ca.gov/cfdocs/apps/schoolipm/school\\_admin/main.cfm?crumbs\\_list=1,8,11#Posting](http://www.cdpr.ca.gov/cfdocs/apps/schoolipm/school_admin/main.cfm?crumbs_list=1,8,11#Posting)

## PHAER MAPPING SYSTEM AND ASSUMPTIONS

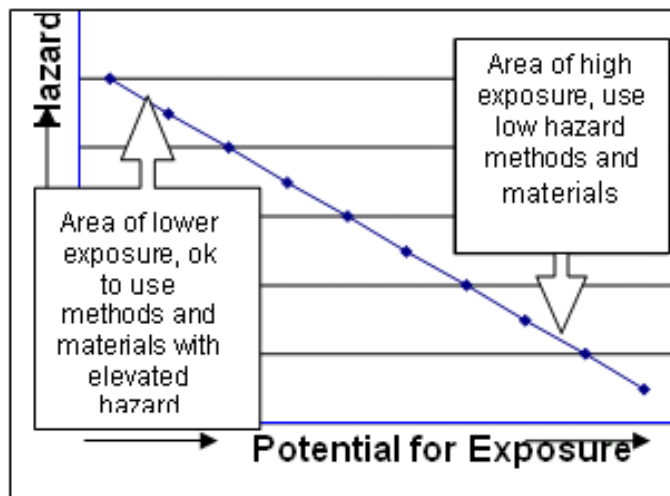
The PHAER method mapping system is based on the formula for “risk”, which includes:

- The potential for human and environmental exposure<sup>4</sup> to pesticides
- The hazard<sup>5</sup> presented by a pesticide

$$\text{Risk} = \text{Exposure} \times \text{Hazard}$$

The higher the potential for exposure in an area, the more vital it is to use a very low-hazard pest management material. In areas where there is little or no potential for exposure, pest managers have more flexibility to use a higher-hazard compound to treat pests. While ‘zero’ pesticide exposure is not the goal of this system, the system is built on the premise that it is an achievable goal to limit exposure to pesticides that are carefully screened, and avoid exposure to pesticides that have documented health risks.

**Figure 1: Risk as a relationship between exposure and hazard**



<sup>4</sup> Exposure: Exposure means contact with a pesticide or pesticide residue. This contact can be direct or indirect contact to humans or sensitive habitats or species. ‘Exposure’ may come through direct skin or clothing contact with pesticides or residues applied to surfaces, or through indirect contact from volatilization, drift, sub-soil movement, or run-off.

<sup>5</sup> Hazard: The hazard is the level of harm that can come from a pesticide. Determined by existing data reflecting the potential for the material to cause neural, dermal, ocular or inhalation damage (‘signal word’), or to cause cancer, reproductive harm, endocrine (hormone) disruption, eco-toxicity, or water contamination.

Five fundamental assumptions form the base of this method:

1. Jurisdictions with diverse sites will have a need for diverse materials, some of which may pose a greater health and environmental risk than others.
2. To reduce risk the hazard of the material must be understood, and the potential for exposure to the material from drift, run-off, volatilization, or contact with residues. In areas with a high potential for exposure (where children play, for example), agencies must strive to use only low hazard materials and methods.
3. Sustained risk reduction requires a shift in current management models and systems. Very few existing school or park settings have been designed, or are currently operating, with pest prevention as a primary design factor.
4. This shift in management models should allow for incremental steps towards risk reduction while alternative practices are tested and habitat modification practices are put into place to prevent future pest problems.

The most effective method of transition will be to prioritize areas of the greatest need based upon the highest potential exposure. Resources should be directed towards these areas, while areas of low potential exposure could be conventionally managed.

#### IV. INTEGRATION OF PHAER MODEL WITH CITY IPM STRATEGY

If adopted, the PHAER Model will be incorporated into the City's IPM Strategy document. The Staff IPM Committee and IPM Advisory Committee will work together in revising the document to insure that policies and procedures are well defined and explained, and that the document accurately reflects the direction of City Council for the IPM program. Additionally, per previous direction from City Council in April 2005, and with implementation of the PHAER Model, all references to "Pesticide Free" will be changed to "Green".

##### Approved Materials

The current City of Santa Barbara Approved Materials List (Attachment 2) will be modified to reflect the appropriate tiered materials coded for zones (as seen in Attachment 3, "City of Santa Barbara Approved Materials List Sorted by Zone") allowing staff to determine which materials are authorized for use in specific zones.

1. Materials appropriate for an Exposure Zone may be used within that zone at the discretion of the site manager and IPM Coordinator. For example, any Yellow hazard material may be used in any Yellow exposure zone without additional approval by the IPM Advisory Committee or staff IPM Committee.
2. Yellow Materials in a Green Zone:

Because the dynamic nature of a landscape eco-system makes occasional significant pest problems inevitable, the PHAER Zone System provides for the periodic use of elevated-hazard materials in a reduced-risk zone, such as RoundUp (Yellow Material) in a Green Zone. This provision is limited to two situations.

The first are emergency conditions in which:

- High risk pests threaten human health and/or the health of a sensitive ecological habitat and watershed,
- The location or occurrence of the high risk pest cannot be anticipated,
- Immediate treatment will preclude the need for additional elevated-hazard pesticides in the future.

Examples may include an infestation of Red Imported Fire Ants or Africanized Honey Bees, or an emerging population of a highly invasive weed or hazardous plant (such as poison oak). The location of these pests can not be predicted, but if uncontrolled, their establishment would likely lead to increased use of elevated-hazard pesticides. These situations are managed under the Emergency Exemptions provision of the IPM Strategy (section VI, C).

The second situation involves restoration, renovation or construction projects in which Yellow Materials are used in conjunction with habitat modifications that will

reduce the need for pesticides in the future. An example of this would be the use of RoundUp to control established Bermuda grass in a landscape bed, when the renovation of that bed includes a mow strip and weed barrier. If not adequately controlled during the renovation process, the Bermuda grass will re-establish and the need for pesticides in the future will not be reduced.

In these situations, all exemption requests will be approved by the staff IPM Committee and the IPM Advisory Committee, and the mitigation steps outlined in the PHAER Handbook will be observed.

3. All Special Circumstance/Red materials will continue to require exemptions granted by the IPM Advisory Committee, as provided in the City of Santa Barbara IPM Strategy.
4. Concurrent with existing policy, all exemption requests are reviewed for approval by the Staff IPM Committee and the IPM Advisory Committee.
5. New materials will be screened according to established PHAER Zone screening protocol and will be assigned to the appropriate hazard category of the Approved Materials List. A hazard assessment report will be provided to the staff IPM Committee and the IPM Advisory Committee prior to use. If the need for the material is not urgent, the material will be reviewed for approval at the first regular set of Committee meetings following the addition. If the need for the material is urgent, the material may be used in the appropriate zone and identified on the materials list as 'pending approval' until formal review and approval by the staff IPM Committee and the IPM Advisory Committee.
6. At times it may be appropriate to reconsider a zone designation, either on a short or longer term basis, if the use of hazard materials will be elevated in response to a particular situation. The Staff IPM Committee and IPM Advisory Committee will be responsible for reviewing and approving all permanent or temporary zone re-designation requests.

### Signage and Posting

Signs will be posted at all parks identifying zone designation, with maps if the park contains mixed zones. These signs will serve to inform the public about the nature of pesticide hazard at the parks, as well as to educate the public about IPM and resource stewardship. Text of sign templates will be reviewed and approved by the IPM Advisory Committee.

- Signs posted at Green parks will briefly describe the nature of allowed Green materials, and provide for identification of Green materials recently used and anticipated for use.
- Signs identifying Yellow zones will briefly describe the nature of allowed Yellow materials, and required posting and notification procedures.
- Any use of a higher hazard material in a lower hazard zone requires posting 48 hours in advance and 14 days following application.

Green materials will be exempted from pre-application and post-application posting requirements as an incentive to use reduced-risk materials. However, temporary signs will be placed around the application site during the time of application, until the material is dry. Consistent with current policy in the IPM Strategy, Yellow materials used in Yellow Zones will be posted two days in advance and three days following applications.

#### Reporting

The IPM Strategy will be modified to include a requirement for periodic Progress Reports to the Staff IPM Committee and IPM Advisory Committee on alterations of zone designations, additions to materials lists, exemptions and challenges. Reports will be summarized in the IPM Annual Report.

Also included in the IPM Annual Report will be documentation on the progress of the IPM Program towards achieving the City Council goal of maintaining City properties in a Green manner.

## **V. PROPOSED PHAER MAPS FOR THE CITY OF SANTA BARBARA**

Each park or city facility has been mapped to reflect the proposed PHAER Zone designation. Mapping designations were determined through site visits and consultations with PHAER consultant Phil Boise and the City Staff who manage each property.

### City Parks

Officially, the City has 59 parks and 1765 acres of parkland, including all City Parks, Elings Park, sports facilities, community buildings, and the Santa Barbara Zoo (see complete Park and Recreation facility list in “Parks and Recreation Resources Inventory,” Attachment 4). For the purposes of this report, the term “City Parks” reflects the 1,476 acres of parkland managed by the Parks Division, which includes 49 parks and 4 ball field facilities. The attached 2005 City Parks and Recreation Facilities Map shows the various locations around the City (Attachment 5).

PHAER maps for City parks are found in Attachment 6, “PHAER Zone Information and Maps for City Parks”. Included in this attachment is a spreadsheet which summarizes key information on the proposed mapping, followed by the maps. Each park site is mapped separately and represents the recommendation of the Parks and Recreation Department.

### Proposed Park Sustainability Improvements with the PHAER Mapping

Maps for City parks include recommended improvements which will transition, or help transition, Yellow Zones to Green and ensure that the proposed Green Zones can be managed in a sustainable and cost-effective manner. Sustainability improvements, such as installing concrete mow strips along turf edges and renovating planter beds, will reduce labor hours from certain tasks to offset the higher labor demand required to maintain parks as Green Zones. Estimated costs of improvements are shown, by facility, in Attachment 6.

### Achieving Green Parks

The proposed PHAER maps indicate that 98% of City park land could be designated Green, with 39 all-Green Parks, and 10 parks designated primarily Green with some Yellow Zone areas. If adopted as proposed, this would reflect exceptional progress towards Council’s goal for Green Parks and for the City’s Integrated Pest Management (IPM) program.

**Table 1 - Proposed PHAER Zone Totals for City Parkland**

Zone Designation	Acreage (sf)	% of Total Acreage
Green	1,449.8	98%
Yellow	26.2	2%
Special Circumstance / Red	0	0%
TOTAL	1,476	100%

Parks Recommended as All-Green Zones

Of the 49 City Parks, 39 parks are being proposed as all-Green Zones. The list below shows the 19 parks previously designated as “pesticide free,” and another 20 parks which are being proposed as Green with the implementation of the PHAER Model.

**GREEN (Previously “Pesticide Free”)**

1. Alameda Park
2. Alice Keck Park Memorial Garden
3. Bohnett Park
4. Chase Palm Park
5. Douglas Family Preserve
6. Eastside Park
7. Escondido Park
8. Hilda Ray Park
9. Honda Valley
10. La Mesa Park
11. Los Robles Park
12. Oak Park
13. Parma Park
14. Parque de los Niños
15. Shoreline Park
16. Skofield Park
17. Stevens Park
18. Sunflower Park
19. Willowglen Park

**GREEN (Proposed with PHAER Zone)**

20. Ambassador Park
21. Andree Clark Bird Refuge
22. City Hall/DLG Plaza/Storke Placita
23. East Beach
24. Equestrian Circle
25. Gould Park/Cold Spring
26. Hale Park
27. Hidden Valley
28. Laurel Canyon Park
29. Leadbetter Beach
30. Mesa Lane Steps
31. Moreton Bay Fig Park
32. Ortega Park
33. Pilgrim Terrace
34. Plaza del Mar
35. Plaza Vera Cruz
36. Rancheria Community Gardens
37. Rattlesnake Canyon
38. Thousand Steps
39. West Beach

Parks Recommended with Designated Yellow Zones

There are 10 parks mapped as primarily Green with some Yellow zoned area(s). After careful screening and consideration, the designated Yellow Zone areas are being proposed in areas of low risk of exposure for the following reasons:

- Labor hours to maintain in a Green manner are high, and resources are better directed to managing higher risk of exposure areas at this time. This includes areas noted for annual Vegetative Fuels Management (fire hazard).

- Area contains poisonous weeds which pose a danger to staff during hand removal (poison oak, Euphorbia).
- Cost of habitat modifications is high, considering improvements recommended in areas of higher risk of exposure.
- Green materials have not been developed to date which effectively combat specific pest or plant problem in the area, and there is a concern for protecting resources (i.e., A.C. Postel Memorial Rose Garden, Mission Historic Park).

### “Floating” Yellow Zones for Vegetative Fuels Management

Four parks have been designated with “Floating” Yellow Zones due to unique challenges faced with the Vegetative Fuels Management program. Floating Yellow Zones are indicated in a yellow weave pattern on the PHAER maps.

Vegetative fuels management work is both the reduction and rearrangement of fuels to provide a break or a reduction in the amount of energy that is released when fuels burn. Fuels can be defined as vegetation, vegetative debris, and dead vegetation. Under the direction of the City Fire Department, on an annual basis the Parks Division is required to provide vegetative fuel work and create defensible space in 12 City open space parks. The work required to reduce vegetative growth. As vegetative growth and development continues in the urban wildland interface, there is an increased potential for loss of life, structures and resources, both natural and economic.

A unique challenge has emerged with efforts to clearly identify the potential need for Yellow materials used for vegetative fuels management in otherwise Green zones. This situation is present in Sylvan, Upper and Lower Orpets, Upper and Lower Franceschi Parks, and in the open space of Hidden Valley Park.

It is likely that Roundup or other Yellow herbicides will be needed to manage vegetative fuels in these parks based upon seasonal rainfall and the shifting presence of highly flammable plant species. There will be occasions when normal mowing is adequate and herbicides are not necessary, and some occasions when portions of the site are dominated by an unexpectedly high fuel cover.

The challenge is in the identification of the actual site of application. To call the park 100% Yellow infers that the entire property will be sprayed with a Yellow pesticide, which will not be the case. To map the park Green will require repeated exemptions, and may limit the ability to quickly control an invasive fuel source.

For purposes of baseline measurement, areas of these parks have been designated as having a percentage of “Floating” Yellow Zones, indicating that some percentage of the mapped site may receive spot-treatments of a Yellow material based upon need. Normal posting requirements as required by the IPM Strategy will be followed. How to communicate accurate and informative information to the public in these areas will be considered further with the staff IPM Committee and the IPM Advisory Committee in the coming year.

### Parks with Yellow Zones

The following table provides information on each of the 10 parks which have Yellow Zones. Included for each park is the total Green and Yellow acreage, the cost of recommended modifications such as concrete mow strips or planter renovation, and whether the Yellow Zone transitions to Green once those modifications are completed. When determining priority for completion, the number of park visitors, ability to transition to Green following the modifications, and reduction of park labor hours to maintain the facility should be considered.

**Table 2 - Parks with Yellow Zones**

LOW RISK OF EXPOSURE						
	Acreage			Cost of Modifications	Transitions Yellow to Green	Comments
	Green	Yellow	% Yellow			
<b>1. Dwight Murphy Ball Park</b> – planter renovation, curbing, renovation of playground sand and drainage swale	8.9	.1	1.2%	\$206,062	Yes	
<b>2. Mackenzie Park</b> – planter renovation and curbing	7.3	.33	4%	\$42,720	Yes	
<b>3. Cabrillo Ball Park</b> – planter renovation and curbing	4.1	.4	9%	\$19,560	Yes	
<b>4. Pershing Park</b> – planter renovation, curbing under fence lines	5.75	.25	4%	\$104,227	Yes	
<b>5. Orpet Park</b> – planter renovation, curbing around turf lines	1	3.5	78%	\$135,282	Yes	
LOW RISK OF EXPOSURE, HAZARDOUS WEEDS AND POISON OAK						
	Acreage			Cost of Modifications	Transitions Yellow to Green	Comments
	Green	Yellow	% Yellow			
<b>6. San Roque Park</b> – planter renovation, curbing around all planters	.63	.12	16%	\$21,144	Yes	

LOW RISK OF EXPOSURE, VEGETATIVE FUELS MANAGEMENT REQUIREMENTS						
	Acreage			Cost of Modifications	Transitions Yellow to Green	Comments
	Green	Yellow	% Yellow			
<b>7. Franceschi Park</b> – planter renovation, development of a “Green” herbicide, and/or increased contract funding.	8.8	8.2	48%	\$351,994	Yes	Vegetative Fuels Mgt. Requirements
<b>8. Hidden Valley Open Space</b> – development of “Green” herbicide, and/or increased contract funding	1.2	11.8	91%	\$ 0	Yes	
<b>9. Sylvan Park</b> - development of “Green” herbicide, and/or increased contract funding	0	1	100%	\$ 0	Yes	
HISTORICAL PRESERVATION, PROTECTION OF ASSETS						
	Acreage			Cost of Modifications	Transitions Yellow to Green	Comments
	Green	Yellow	%Yellow			
<b>10. A.C. Postel Memorial Rose Garden and Mission Historic Park</b> – development of “Green” herbicide, planter renovation, curbing	10.5	.5	5%	\$29,220	No	Will require development of “Green” herbicide, fungicide and insecticide

### City Properties Maintained by the Parks Division

The Parks Division also has responsibility for maintaining landscaped areas for various community buildings and City facilities, as well as traffic islands, parkways, and, by contract, the Waterfront Department’s parking lots. Most of these areas are addressed in Attachment 7, “PHAER Zone Information and Maps for City Facilities Maintained by Parks Division” Each map indicates the reason for designated Yellow Zones, and includes recommendations for improvements which will either transition the area to Green, or improve Sustainability. Table 3, which follows, provides an overview of those properties including percent of acreage which is Yellow, cost of proposed modifications and comments transitioning Yellow Zones to Green.

Traffic islands and parkways (not mapped) – Parks is responsible for maintaining 102 traffic islands and various parkways throughout the City. These areas are proposed as Yellow Zones, due to low risk of exposure and concern for worker safety.

**TABLE 3 – CITY PROPERTIES MAINTAINED BY PARKS DIVISION**

LOW RISK OF EXPOSURE						
	Acreage			Cost of Modifications	Transitions Yellow to Green	Comments
	Green	Yellow	% Yellow			
<b>1. Las Positas Tennis Courts</b> – planter renovation	5.25	.75	13%	\$15,960	Yes	
<b>2. Municipal Tennis Courts</b> – planter renovation	5	2	29%	\$43,200	Yes	
<b>3. MacKenzie Lawn Bowls</b> – planter renovation	.95	.85	47%	\$4,190	No	Will require development of “Green” herbicide, fungicide and insecticide
<b>4. Spencer Adams Lawn Bowls</b> – planter renovation, curbing	2.42	.58	19%	\$10,973	No	Will require development of “Green” herbicide, fungicide and insecticide
<b>5. East Beach Parking Lots</b> - planter renovation	2.8	.45	14%	\$9,336	Yes	
<b>6. Leadbetter Lot</b> – planter renovation	2	.3	13%	\$6,682	Yes	
<b>7. Chase Palm Parking Lot</b> – planter renovation, curbing	3.75	.25	6%	\$31,404	Yes	
<b>8. Garden Street Waterfront Lot</b> – planter renovation	4.8	.2	4%	\$3,864	Yes	
<b>9. Harbor Parking Lots</b>	12.25	.75	6%	TBD	Yes	
<b>10. Golf Course</b>	105	1.5	1%	TBD	No	Will require development of “Green” herbicide, fungicide and insecticide
<b>11. Islands, Under/Overpasses and Misc.</b>	0	2.29	100%	TBD	Yes	

## Golf Course

Santa Barbara Municipal Golf Course is situated on 109 acres. The course is primarily “Green” – 105 acres (96.3%) has no pesticide usage. Tree basins and fence lines (1.4%) are considered “Yellow Zones.” Putting surfaces or greens are designated as “Special Circumstance” Zones and comprise 2.5 acres or 2.3% of the total property. See Attachment 8 for proposed PHAER map.

The main issue for the golf course is maintaining the greens. The challenge lies in reducing plant stress while maintaining a high quality golf experience. Stress comes from soil and plant damage caused by 87,000 golfers annually and from Mother Nature.

Over the past 2 years the Santa Barbara Municipal Golf Course has implemented one of the most progressive organic maintenance programs in the industry. This environmental stewardship program is based upon promoting natural plant defenses to disease, reducing stress which makes the turf susceptible to pest outbreaks, and natural suppression of disease in the soil profile and tissue surfaces by beneficial micro-organisms.

The program involves the on-site brewing of a complex “compost tea” and bi-weekly applications of the extract on the greens. Any applications not only promote plant and soil health, but regularly inoculate the greens with micro-organisms that consume pesticide residues as a high-energy fuel. Thus, pesticide applications on greens are followed by an application of compost tea as a mitigation effort to re-inoculate beneficial microorganisms and accelerate bio-degradation of pesticide residues.

However, certain weather conditions, such as warm overcast foggy days and cold damp winter periods bring disease pressure which the course’s organic maintenance program can not suppress. On several occasions in 2005, fungus rapidly outgrew the 10% threshold (greens are curatively treated only after a 10% threshold) and caused severe damage to the greens, which took time and money to repair. These fungus outbreaks can cause a significant threat to a City asset. Golfer dissatisfaction occurs as swiftly as disease damage, and golfers often play other courses until putting conditions improve. The economy of the golf course is negatively impacted, which is a significant concern since the Golf Course operates as an Enterprise Fund and must generate revenue equal to the costs of operation.

There is an important need for preventative applications of fungicides on greens, which could be addressed through the proposed PHAER process. Staff recommends having the ability to spray properly timed preventative fungicide applications as needed, which will use less material than applications sprayed at curative rates. These applications would be based upon experience and degree-day modeling which is being developed, and would be only in certain situations. Targeted preventative applications are likely to

reduce overall amount of fungicides applied. Staff will continue to work with the IPM Advisory Committee through the existing exemption process as necessary.

Immediate priorities for improvements at the golf course are to maintain a Green buffer in the rough areas around Adams School. The Golf Course is currently working with Creeks Division to create bio-swales in this area which will help, and Yellow Zoned tree wells are being modified so that they can be maintained Green. Another priority is to establish a Green Zone buffer in the right rough of hole number 3. This area borders the homes immediately adjacent to the golf course. Included in the approved Golf Course Master Plan for Safety Improvements are projects which will provide opportunities to identify out of play areas which can be naturalized and converted to green. This work is expected to take place over the next 4 years.

### Airport

The Airport encompasses 952 acres, including approximately 200 acres of commercial/industrial property and 400 acres of the Goleta Slough Ecological Reserve. The airfield features a commercial airline terminal and three runways accessed by a network of taxiways. Safety areas, which are required by FAA, flank both runways and taxiways. Airport ramps provide aircraft storage space and are home to businesses serving the aviation community. The perimeter fence around the airfield restricts access to the airfield and portions of the Goleta Slough Ecological Reserve.

Areas directly adjacent to runways and taxiways, including all safety areas have been designated Special Circumstance Zones on the Airport PHAER Zone map (Attachment 9). The Special Circumstance designation results from the occasional application of Fumitoxin, a Tier 1 material, to prevent rodent damage to safety areas in accordance with FAA requirements. Fumitoxin was chosen as the superior alternative due to its effectiveness in limited applications (reducing applicator exposure to the hazardous airfield work environment), slight risk of human exposure due to restricted airfield access and no risk of a “secondary kill” on non-target species. Programmatic exemption requests have been reviewed and approved by the IPM Advisory Committee for application of this Tier 1 material. Yellow herbicides are also used on the airfield to manage vegetative obstructions and encroachment.

The Goleta Slough Ecological Reserve is primary mapped as a Green Zone, with the exception of two types of areas where Yellow materials are or may be used. Airport basins within the Goleta Slough are sources of mosquitoes which carry the West Nile Virus (WNV). By recommendation of the Santa Barbara Coastal Vector Control District, the Airport has been aggressively combating mosquito populations in the Goleta Slough using a Yellow material, Altosid XR, to limit potential human exposure to the virus. These basins are mapped as Yellow reflecting the on-going battle against WNV. Other areas of the Goleta Slough are mapped Yellow, acknowledging that as part of the Airport's native habitat restoration effort, occasional application of Yellow herbicides may be used to minimize competition by non-native species. As native habitat is successfully restored, restoration areas will transition from Yellow back to Green Zones.

Given the ecological sensitivity of the Goleta Slough, management practices are chosen carefully.

All Airport managed areas outside the airfield fence, where the risk of human exposure is greatest, including the Airline Terminal, long and short term parking lots and Love Place Park are mapped, and will continue to be managed as Green Zones. Rights-of-way along Los Carneros Avenue and medians in the center of Hollister Avenue are designated Yellow Zones to allow application of specific herbicides. Additionally, as discussed above, small Airport native habitat restoration areas outside the airfield fence, which may be treated with Yellow herbicides during the course of the restoration effort are designated as Yellow Zones. Like restoration efforts in the Goleta Slough, these areas will transition back to Green Zones as the native habitat becomes established.

### Public Works

The Public Works Department, through its Facilities Division, contracts with four local Pest Management Service providers to manage and control all aspects of Pest Control Services. They provide services to all City-owned facilities, supported by Facilities Building Maintenance Program. The contractors are required to adhere to the City's Integrated Pest Management "Green Zone" requirements. One particular aspect of Pest Control is the fumigation of buildings. Contractors who tent and fumigate City buildings are now required to use "Heat Process" to eliminate termite and other infestations from buildings. This "Heat Process" increases the cost of "fumigation" by 40%, but the benefits of using heat far outweigh the increased costs. These benefits include the removal of chemical from the process and the elimination of residual chemical effects on building occupants then the building is reoccupied.

Occasionally, various divisions in the Public Works Department will have a need to use "Yellow Zone" chemicals when they respond to "Safety and Health Issues" in the work zones. Public Works Staff are familiar with the PHAER Zone Exemption Process and will comply with all aspects of the exemption process.

### Vector Control

Environmental Services Vector Control is responsible for protecting public health and safety from the threat of vectors present in the public right of way (ROW) within the city. This primarily constitutes abating bees, rodents, and mosquitoes that exist in the ROW that are in such a location they pose a public health threat. The locations of abatement and the use of pesticides are on an as needed basis and vary with need and the seasons. Vector Control utilizes a 100% "Green" method of pest control in abating vectors.

Presently Vector Control is running two rodent abatement programs at two separate locations. These locations are State Street from State and Cabrillo to the 1300 block of State and Coast Village Road. This program utilizes mechanical snap traps to remove rodents from the ROW. These snap trap stations are inconspicuously placed in

landscaping and planters. No rodenticide, pesticide or any other chemical product is used in this program. Rodent infestations may increase in other sectors of the ROW where new rodent abatement programs will be needed, but for any such future programs the same process will be utilized.

Bee hives and/or swarms in the ROW are another vector of public health concern that Vector Control manages. Locations vary, but examples are beehives found in water or gas meters, in bushes and trees, and swarms that can alight anywhere. Vector Control utilizes the assistance of local beekeepers to remove these when they are in a location that threatens public health and safety. The bees are removed live and used by the beekeepers. No pesticide product is used in this process. In certain situations where the location of the beehive is such that the beekeepers are not successful in removing the bees and the location of the hive is close enough to potentially cause harm to the public, Vector Control will apply to the IPM Committee for the use of a "Yellow" product, M-Pede. M-Pede is an insecticidal soap which is low in toxicity, but carries a warning label because it comes in a concentrated form. The active ingredient is Potassium salts of fatty acids. The fact that it is concentrated is what puts it in the "Yellow" zone. Small quantities of product are used per application. Usually 4 to 6 ounces of product is sufficient per hive.

The threat of West Nile Virus is of great public health concern. Mosquitoes are the vector for this disease which had its greatest impact in California in 2005. Vector Control abates mosquitoes through removal of larvae. Much less product is needed to control larval populations than the spraying for adult mosquitoes. Spraying an adulticide is hard to contain within the target area. Regardless of the threat level from this vector, adult spraying will not be utilized in mosquito abatement by Vector Control. The areas of import are any stagnant water areas which are created in city creeks, culverts, drains and gutters that do not drain.

The sole larvicide product that is used by Vector Control is *Bacillus Thuringiensis* subspecies *israelensis* (Bti). This larvicide is considered "Green" because it is a biological control agent of mosquito larvae. It is applied in small quantities to stagnant water areas actively breeding mosquitoes. The rate of application is .5 ounces for 25 to 100 square feet of surface area of standing water. Mosquito season is April through October. Within this time frame is when the use of Bti is needed. In the event of a public health emergency caused by environmental factors which produce out of control mosquito larval breeding where Bti would be less effective, Vector Control will apply for an emergency exemption for the use of one of two different "Yellow" products depending on the situation. The first of these products is Golden Bear Oil III. This product is a high viscosity oil which is sprayed over stagnant water areas and suffocates mosquito larvae. Studies show that it is thin enough that other aquatic life and insects can break through this barrier, but it coats the breathing apparatus of mosquito larvae. The other product is a material that the Airport currently utilizes exclusively for mosquito abatement. The brand name of this product is Altosid and the active ingredient is S-Methoprene. It is an insect growth regulator and would only be needed in the event of a massive outbreak of mosquito larvae in larger bodies of water such as the Andre Clarke

Bird Refuge or in smaller pools, culverts, drains, etc. The situation has not yet arisen where it has been necessary to use this product for mosquito abatement by City Vector Control.

While City Vector Control manages stagnant water areas in streets, gutters, and culverts and many of the smaller creeks such as Light House Creek, Old Mission Creek, and the Andre Clarke Bird Refuge for mosquito larvae, many of the larger creeks are abated by the Santa Barbara Coastal Vector Control District (SBCVCD). These include, Arroyo Burro Creek, Mission Creek, Sycamore Creek, and portions of the Laguna Channel.

At this time, maps and site plans for all PW Department sites and rights of way are not included in this report. They can be developed from our existing database files, if required.

### Waterfront

The Waterfront encompasses 252 acres including the harbor, harbor commercial area, Stearns Wharf, and 7 parking lots. The majority of the landscaping is located in the parking lots and the harbor commercial area. Approximately 2.4 acres of planter beds and 1.2 acres of turf are maintained by the Parks Division. The parking areas are typically the public's first exposure to the Waterfront area and are well maintained to make a positive first impression on Waterfront visitors. Although the acreage is relatively low, significant labor is necessary to maintain the landscaping to high standards.

By contract, the Parks Division provides landscape maintenance of planter beds and turf in the 7 Waterfront parking lots, as well as the harbor commercial area. The Waterfront Department manages the various buildings and facilities in the harbor and wharf areas. PHAER maps for Waterfront property are included in Attachment 7, "PHAER Zone Information and Maps for City Facilities Maintained by Parks Division", which shows areas maintained by the Waterfront staff.

The PHAER maps for the Waterfront identify areas of high potential public exposure and those areas are mapped as Green Zones. The Green Zone areas are typically found along the bike path, areas near the water or beach, bus stops, and lawn areas. Green Zones encompass 94.2% (12.5 acres) of the total landscaped areas.

Waterfront parking lot maps show areas of low exposure, such as islands and some planter beds, zoned as Yellow. Treating these areas Yellow allows for greater labor work efforts to be directed to areas with higher exposure. Recommended sustainability improvements include re-landscaped planter beds with low maintenance plants, increased use of mulch to inhibit weeds, and addition of concrete mow strips along turf areas which border planter beds. Yellow Zones encompass 5.8% (0.75 acres) of the total landscaped area.

In addition to maintenance of landscaped areas in the Waterfront, IPM strategies also apply to rodent control in the harbor commercial area and Stearns Wharf. Millions of people visit the harbor commercial area and Stearns Wharf every year. Many of the visitors dine at one of the many restaurants and rodent control is very important. The Waterfront Department has traditionally used lockable bait stations that are placed near restaurants in out-of-reach places such as under hedges and buildings. The bait stations contain the rodenticide Ditrac. Ditrac is a Yellow pesticide that contains the active ingredient Diphacinone. Diphacinone is an anti-coagulant not known for bioaccumulation with limited risk of persistence in the food chain. Bait stations have proven effective and have eliminated a once chronic rodent problem at the Waterfront. Nevertheless, in an effort to advance IPM strategies with respect to rodents, the Waterfront is currently experimenting with traps and will report the results to the IPM Advisory Committee.

## VI. IMPLEMENTATION COSTS – PARKS DIVISION

### Managing Park Land Under IPM Requires Additional Resources

The Parks Division supports IPM and has been implementing IPM principals for over 10 years. The 2004 Annual IPM report summarized the first year of implementation under the City's formal IPM Strategy. The report indicated that implementing the IPM Program required a 10% increased use of park labor hours (approximately 2.6 FTE) to support those efforts. The additional time spent combating weeds has generally at the expense of horticulture work and improvements.

The table below demonstrates the challenges with Weed Management under IPM. Least toxic alternatives require a substantial commitment of labor resources to maintain an acceptable outcome, and many alternative green materials require multiple applications rather than the single application standard for most pesticides. In addition, material and labor costs for most IPM alternatives are more expensive than conventional treatments. Table 4 illustrates the range in costs and labor hours required weed management of a 1,000 square foot area.

**Table 4. Cost for weed management in a 1,000 square foot area**

Method	Labor	Labor Cost	Materials Cost	Total Cost
Roundup Pro	1 hour	\$33	\$2	\$35
ECO Exempt HV	2 hours	\$66	\$28	\$94
Hand Weeding	12 hours	\$396	\$0	\$396

Due to the City's fiscal situation at the time, recommendations from the 2004 Annual IPM Report to increase staffing levels and purchase equipment to support the IPM Program could not be implemented. As a result maintenance quality standards and horticultural values were lowered. For the most part, this change has been unnoticed by park users.

Although there is a stated tolerance for seeing weed infestations in City Parks, best management practices for parks management goes beyond the community's comfort level for the presence of weeds in landscape beds. Parks must be appropriately maintained to insure that Green Zones stay Green in the years to come, that a high level of public satisfaction with park conditions continues in order to retain public confidence in the IPM program, and to preserve Santa Barbara's unique horticultural heritage for future generations.

### Progress in Fiscal Year 2006

The Parks and Recreation Department continues to pursue alternatives to reduce the estimated 10% increase in work load related to IPM.

- *Sustainability* - Although fiscal challenges precluded the addition of staff positions to support IPM with the Fiscal Year 2006 budget, Council implemented an annual funding of \$50,000 for Parks IPM sustainability improvements. The department added another \$25,000, for a total of \$75,000. Projects include improving the Shoreline Park picnic area, curbing, mow strips and planter renovations at Alice Keck Park Memorial Gardens, and curbing at Dwight Murphy Park.

Additionally, Parks Division is evaluating whether some low visibility planter beds in certain parks could be modified by simplifying, or removing all together, plant material. Planter beds could be mulched over or turf could be expanded through the area.

- *Green Team* – With the improved fiscal outlook for the City, and significant reduction of the anticipated budget reduction for Fiscal Year 2007, the Parks and Recreation Department is redirecting \$163,000 in department resources to support IPM maintenance operations in Fiscal Year 2006. A Parks Division “Green Team” is being created through the filling of two vacant positions. Augmenting the IPM efforts of other parks staff, the Green Team will primarily focus on increasing mulching activities, which has been determined to be one of the most effective methods to combat weed growth. A crew cab truck, enclosed loader, weed mower, several weed whips, and other smaller pieces of equipment to support IPM are being purchased through one-time salary savings originally targeted for anticipated budget reductions.
- *Green Gardener Program* – 22 out of 29 Parks Division Staff are now certified through the Green Gardener Program, a regional program offering education, training, certification and promotion of sustainable landscape practices. 10 Staff achieved Advanced Green Gardener certification.
- *Park Volunteer Program* – The department is in the process of implementing an expanded park volunteer program to support park maintenance and promote community education to increase awareness of IPM and reduce residential pesticide use. Modeled after successful programs in San Francisco and San Diego, this program will create neighborhood-based volunteer groups to work in neighborhood parks, and expand the existing volunteer work day program. Initially, Santa Barbara Beautiful, Pesticides Awareness and Alternatives Coalition (PAAC), the Creeks Program and Looking Good Santa Barbara have expressed interest in supporting the program, and other community organizations are being identified for partnering opportunities as well.

### Vegetative Fuels Program

The Parks and Recreation Department is mandated to provide Vegetative Fuels Management in park areas, just as private homeowners are, because wildfires have always been a part of Santa Barbara bringing devastating results to life, structures, and

natural resources. The program has become increasingly labor intensive without the use of Roundup and has not been adequately funded for several years.

Since IPM was implemented in 2004, Parks has reduced significantly or completely eliminated the strategic use of RoundUp to reduce vegetation – increasing the hand labor required. Due to the steep topography in the high fire hazard areas, it has been very difficult to reduce vegetation using hand methods. In addition, as weed populations grow, subsequent abatement efforts can be more costly particularly with noxious and invasive weeds such as Castor bean, Pampas grass, Poison oak, myoporum, German ivy, and Arrundo.

The proposed PHAER maps reflect a percentage of “Floating” Yellow in several Open Space parks due to the unique challenges faced with the vegetative fuels program, and because these areas have less risk of exposure than other highly visited parks areas. For this reason, the recommendation is to spend more parks staff resources in higher risk of exposure areas, and allow a strategic, conservative use of Roundup for vegetative fuels management until an effective green material is developed to replace the efficiency of RoundUp, or sufficient funding is provided to support the vegetative fuels program.

Securing adequate annual funding to meet the requirements of the department’s vegetative fuels program has been a consistent challenge over the years. Currently, Parks Division allocates 600 staff hours for vegetative fuels management, augmented by \$25,000 in contract funding. Since Parma Park maintenance is supported through a trust, it is the only City park with sufficient funding for vegetative fuels management. The Wildland Fire Plan, adopted by the City in 2005, estimated annual funds required for parkland fuel management at \$75,000. This figure is based on 15 acres of vegetative fuels work per year at \$5,000 per acre.

#### Parks Signage Program to Promote Community Education and IPM Awareness

An objective of the IPM Program is to provide communication to the public on pesticide reduction within the park system. The PHAER Zone Model will allow the City of Santa Barbara to demonstrate to all park users, through a signage program, how and where pesticides are or aren’t used. This signage program will provide for the posting of signs which will reflect PHAER Zone mapping, descriptions of Green and Yellow Zones, and current practices through the IPM Program. The estimated cost for this program is \$95,000, which includes signage, kiosks, and installation.

#### Focus on Sustainability

Most City parks were designed before sustainable landscape practices were developed. Sustainable landscape designs support reduced use of pesticides/herbicides, water and labor effort to maintain landscaping. Of Santa Barbara’s 49 parks, only Alice Keck Park Memorial Gardens, Chase Palm Park Expansion, and Parque de los Niños were designed for Sustainability.

Some of the challenges of Weed Management discussed earlier can be partially addressed through sustainability improvements, such as concrete mow strips or curbing. To estimate the long-term labor savings from sustainability improvements, the quantity of labor hours to maintain park areas without concrete mow strips was compared to what that time would be with the mow strips. (Attachment 10). Since the time is roughly cut in half, one could surmise that 1,276 staff labor hours (.61 FTE) could be redirected to other park maintenance needs each year if all of the recommended mow strips were constructed.

The goal of the Parks Division is to transition older landscaped areas to a more sustainable design in order to reduce water usage, maintenance requirements, and the need for pesticides to treat pests and weeds. By prioritizing and gradually addressing the recommended modifications included in the PHAER maps over a period of years, Santa Barbara's parks can achieve a higher level of sustainability which will maximize resources now and for the future.

#### Funding Priorities for Park Sustainability Improvements

A prioritized funding plan for implementing the recommended \$1.7M of sustainability improvements will be proposed for consideration with adoption of the City's Fiscal Year 2007 annual budget. Approximately \$680,000 in sustainability improvements is identified in Green Zones of parks and facilities, and \$1M for improvements in Yellow Zones. These are short-term capital investments which will provide labor efficiencies in the long-term. Funding projects which will transition Yellow Zones to Green are important and should be a high priority, given the City's goal of having Green Parks. However, this must be balanced with improving sustainability in existing Green Zones to insure that Green Zones stay Green in the years to come, that a high level of public satisfaction with park conditions continues in order to retain public confidence in the IPM program, and to preserve Santa Barbara's unique horticultural heritage for future generations.

**Table 5 - Transitional Costs to Sustainable Green Management**

<div> <div>1,450 Acres</div> <div>\$679 k</div> <div>26 Acres</div> <div>\$1,031 k</div> </div>			
	Green	Yellow	Total
Acreage	1,449.8	26.2	1,476
Transitional Cost	\$679,000	\$1,031,000	\$1,710,000
Cost per Acre	\$470	\$29,457	

Priority should be given to sustainability projects in Mode 1 and 2 parks and ball fields. Mode refers to the maintenance service level provided by the Parks Division. All park facilities are assigned to Mode 1 – 4, 1 being the highest level of service. For instance, Alice Keck Park Memorial Gardens, A.C. Postel Memorial Rose Garden, and Chase Palm Park are Mode 1 parks, denoting that they have high community visibility and frequent park visitors, and that a higher level of staff effort is dedicated to maintaining them. Completing recommended improvements for Modes 1 and 2 parks will achieve a higher reduction in staff maintenance time compared to lower mode parks, allowing that time to be redirected to other maintenance tasks.

Most sustainability improvements are costly with undetermined cost return or have a projected 20-40+ years cost return on investment. It is important that projects be selected carefully and that park maintenance operations are evaluated each year prior to determining future funding priorities. With implementation of the Green Team, progress on sustainability projects and continued efforts by the Parks Division to modify high maintenance areas, it may be possible to manage some park areas without the recommended sustainability improvements.

#### Addressing the Challenges at the A.C. Postel Memorial Rose Garden in Mission Historic Park

Staff continues to face significant fungus disease challenges at the A.C. Postel Memorial Rose Garden. The most serious is crown gall which is causing a steady decline of infected rose bushes. Additionally, downy mildew causes sudden foliage drop which causes stress on the roses and actually stops a bloom cycle. This disease also causes risk of sun burn damage to exposed branches. Other diseases such as powdery mildew and black spot are not as easily controlled using Green materials as compared to products that were formerly used. The primary reason the Rose Garden is mapped as a Yellow Zone because there continues to be a need from time to time to spray the garden with a Yellow material, generally Neem oil, in order to reduce the various pest problems that occur throughout the year due to various changes.

The A.C. Postel Memorial Rose Garden is one of only 50 accredited display rose gardens in the United States. A decrease in rose maintenance quality might possibly lead to the loss of this accreditation. Staff will continue to use the least toxic materials in the garden and also continue their working relationship with the IPM Advisory Committee to reduce pesticide use in the garden.

#### Funding Sources for Parks Sustainability Projects

Possible funding sources for parks sustainability projects include the General Fund, Redevelopment Agency (RDA), grants, and Enterprise Funds as appropriate. The General Fund currently provides \$50,000 per year in the Parks Division Special Projects budget for sustainability improvements. With \$1.7M in projects now identified, this

amount should be increased over the next few years in order to complete a greater number of priority projects over a shorter period of time.

The table below shows that over \$130,000 in sustainability improvements are eligible for RDA funding consideration for the 5 City Parks and 5 facilities or parking lot areas located in the Redevelopment Zone. The Parks and Recreation Department will be submitting these projects for Fiscal Year 2007 funding consideration in early February 2006.

**Table 6 - Projects Eligible for RDA Funding**

<b>City Parks</b>	
<b>Dollar Amount</b>	<b>Priority Expenditure</b>
\$19,560	Cabrillo Ball Park
\$10,200	Chase Palm Park
\$3,000	De La Guerra Plaza
\$3,744	West Beach
\$15,000	Moreton Bay Fig Tree
\$30,600	Plaza Vera Cruz
<b>Sub Total = \$82,104</b>	
<b>City Property Maintained by Parks Division</b>	
<b>Dollar Amount</b>	<b>Priority Expenditure</b>
\$3,600	Los Banes
\$10,953	Spencer Adams Lawn Bowls*
\$31,404	Chase Palm Park Parking Lot
\$3,864	Garden Street Waterfront Lot
TBD	Harbor/Waterfront Lot
<b>Sub Total = \$49,821</b>	
<b>Total = \$131,925</b>	
* Modification to Spencer Adams Lawn Bowls includes landscape modifications only, not Bowling Greens.	

Although initial surveying of possible grant funds for sustainability projects indicates limited opportunities, Staff will continue to pursue this effort.

Departments or programs supported through Enterprise operations, such as the Golf Course or Waterfront, should be responsible for prioritizing and funding recommended improvements to achieve a high level of sustainability over time. To do so will assure that maintenance efforts are conducted at the most efficient and cost effective level. Approximately \$16,000 of sustainability improvements recommended for Leadbetter and East Beach parking lots should be funded by the Waterfront Department and considered with the development of the Fiscal Year 2008 budget. (Other Waterfront area parking lots are eligible for RDA funding.)

## Staffing Recommendations to Support City IPM Program and Parks Division Maintenance

The 2004 IPM Annual Report recommended the development of a City IPM Coordinator position. In this third year of the program and given the City's aggressive efforts towards maintaining City parks and facilities in a Green manner, the recommendation is still appropriate. However, the duties could be designed for a half time position, and it is likely feasible that an existing City position in one of the participating departments could be restructured so that at least 50% of time could be dedicated to this role. This recommendation should be considered with the Fiscal Year 2007 budget.

The 2004 report also noted a 10% increase in Parks labor work force, or the equivalent of 2.6 FTE. While sustainability improvements, the new Parks Green Team and the expanded park volunteer program will help reduce this increased workload, it is recommended that staffing be added to the new Parks Green Team in Fiscal Year 2007. One regular Grounds Maintenance Worker II position (\$65,477) should be added, with hourly staff to equal up to one FTE (\$26,187), for a total cost of \$91,664.

### Summary

In conclusion, the City's goal of having all City Parks maintained Green will require a commitment to best practices and high levels of staff efficiencies in park maintenance, increased funding for sustainability projects over a number of years, and providing sufficient staff resources to support the program.

Park Signage Program	<p>\$95,000 phased over 3 years</p> <ul style="list-style-type: none"><li>• \$45,000 for park signs</li><li>• \$50,000 for kiosks</li></ul>
Sustainability Projects	<p>\$1.7M phased over several years, evaluated for priority and need annually</p> <ul style="list-style-type: none"><li>• \$50,000 currently funded in Parks General Fund for Fiscal Year 2007</li><li>• \$130,000+ eligible for RDA funding in Fiscal Year 2007</li><li>• \$16,000 identified for Waterfront Department funding, will increase as cost estimates are developed for Harbor/Waterfront area</li></ul>
Parks Green Team	<p>Increase staff levels beginning with Fiscal Year 2007</p> <ul style="list-style-type: none"><li>• One GMWII (\$65,477)</li><li>• Hourly staff - up to 1 FTE (\$10,000-\$26,187)</li></ul>
Vegetative Fuels Program	<p>\$50,000 annual funding as funding allows</p>

Foremost consideration must be given to improving sustainability in existing Green Zones to insure that Green Zones stay Green over the passing years, while transitioning Yellow Zones to Green as expeditiously as possible. While the decreased park maintenance service levels over the past year have not been noticeable to the general public, it is important that the Santa Barbara community and visitors continue to experience a high level of satisfaction with park conditions in order to retain public confidence in the IPM program, and to protect and preserve Santa Barbara's unique horticultural heritage for future generations.

## **VII. IMPLEMENTATION COSTS – OTHER DEPARTMENTS**

### Airport

The Airport Department anticipates implementation costs for improvements related to adoption of the PHAER Zone model; however, final estimates have not been completed as of the date of this report.

### Public Works

The Public Works Department will have no new implementation costs associated with the program in its current form.

### Waterfront

The Waterfront Department anticipates implementation costs for improvements related to adoption of the PHAER Zone model; however, final estimates have not been completed as the date of this report.

## **VIII. RECOMMENDATIONS**

1. Adopt the proposed PHAER Zone Model for the City of Santa Barbara and direct the Staff IPM Committee and IPM Advisory Committee to incorporate it into the City's IPM Strategy, and change terminology from "Pesticide Free" to "Green".
2. Approve the changes in IPM Strategy related to Approved Materials List, Signage and Posting, and Reporting as discussed in Chapter V, "How PHAER Model Works with City IPM Strategy."
3. Accept the proposed PHAER Zone maps and recommendations for Green, Yellow and Special Circumstance zones for City parks and properties.
4. Direct staff and the IPM Advisory Committee to work together in developing a strategy to transition the A.C. Postel Memorial Rose Garden in Mission Historic Park to Green given the high public exposure of that area.
5. With the development of the Fiscal Year 2007 budget
  - Approve a multi-year plan to fund Sustainability Improvements in Parks and transition Yellow Zones to Green
  - Increase Parks Division staffing for the Green Team (1 regular GMW, hourly staff up to 1 FTE)
  - Develop a .5 FTE IPM Coordinator position within one of the participating departments.
6. In future years, increase annual funding for Vegetative Fuels Management Program in City open space parks by \$50,000.

## **IX. CONCLUSION**

The IPM Strategy adopted by City Council in January 2004 for all city owned properties, requires the development of a “Zone System” to limit pesticide use based on potential human exposure. The Pesticide Hazard And Exposure Reduction (PHAER) Model is achieving statewide recognition as a viable tool for implementing and managing IPM programs. The Proposed PHAER Model for Santa Barbara is a good fit for the City’s IPM program and addresses the needs that the City has for planning, implementing, and measuring progress with the program, and for communicating information to the public about the City’s use of pesticides in its various parks and facilities.

Santa Barbara is committed to operating as a Sustainable City and offering the community public facilities and a park system that are managed in the least toxic manner for the health and safety of its people and natural environment. In particular, the City has a goal to manage all of its parks Green. The proposed maps indicate that 98% of City park land could be designated Green. Currently the City has 19 parks designated as “pesticide-free.” If adopted as proposed, exceptional progress towards the City’s goals will be achieved.

Since its inception, the cost to implement the City’s IPM Strategy has been a key consideration since reducing use of pesticides has meant increased work effort to achieve similar results. Proposing 98% of park land to be Green assumes that increased staffing will be provided and that short-term capital improvements will be made to facilitate long-term efficient park maintenance and sustainable Green management. A prioritized funding plan for implementing the staffing recommendations and \$1.7M of sustainability improvements will be proposed for consideration with adoption of the City’s Fiscal Year 2007 annual budget.

Increasingly, the City of Santa Barbara is being recognized as a leader in the Integrated Pest Management field and acknowledged for the significant progress it is achieving with through its IPM program. Foremost consideration must be given to improving sustainability in existing Green Zones to insure that Green Zones stay Green over the passing years, while transitioning Yellow Zones to Green as expeditiously as possible. While the decreased park maintenance service levels over the past year have not been noticeable to the general public, it is important that the Santa Barbara community and visitors continue to experience a high level of satisfaction with park conditions in order to retain public confidence in the IPM program, and to protect and preserve Santa Barbara’s unique horticultural heritage for future generations.

## GREEN MATERIALS LIST

ATTACHMENT 1

This list should serve as a reference document for material selection, and to demonstrate hazard screening protocol. It is not comprehensive of all materials, nor should it be adopted in whole. Sources should be viewed periodically for updates

### **EPA REGISTRATION EXEMPT: Biologicals, pheromones, food/household materials**

Label will indicate if product is EPA Registration Exempt. Product must meet three criteria:

1. Active ingredients must be on the FIFRA 25(b) list:  
<http://www.epa.gov/opbtpd1/biopesticides/regtools/index.htm>
2. Other Ingredients ('Inerts') must be on the EPA 4(a) List "Inerts or Minimal Concern":  
<http://www.epa.gov/opbtpd1/biopesticides/regtools/index.htm>
3. 100 percent of formulation by weight must appear on the label

Herbicide		Tier 4	Bioganic Broadleaf Killer	eugenol, phenethyl propionate	
Herbicide		Tier 4	Bioganic Weed & Grass Killer	eugenol, thyme oil, acetic acid	
Herbicide		Tier 3	corn gluten meal (any)	corn gluten	
Herbicide		Tier 4	EcoExempt HC	Eugenol (clove oil) 21.4%, 2-phenethyl propionate 21.4%	
Insecticide		Tier 3	EcoExempt IC	Rosemary oil 10%; wintergreen oil, mineral oil (inerts)	
Insecticide		Tier 3	Gnatrol (Vectobac)	B.t.i.	
Herbicide		Tier 4	Matran 2	clove Oil	
Herbicide		Tier 3	Suppressa	corn gluten meal	
Insecticide		Tier 3	Thuricide HPC	B.t.k.	
Insecticide		Tier 3	Vectobac 12AS	B.t.i.	
Insecticide		Tier 3	Victor Poison Free Wasp & Hornet	mint oil	

### **San Francisco Tier 3, Tier 2 Allowed, Tier 4 Allowed**

<http://temp.sfgov.org/sfenvironment/aboutus/innovative/ipm/>

Pesticide Type	Use Category	Hazard Tier	Product Name	Active Ingredients	Use Limitations
W=herbicide in water F=fungicide I= insecticide H=herbicide M=molluscicide V=vertebrate A=adjuvant P=plant hormone	A = allowed L= limited L* = special concern	1 = Highest 2 = Moderate 3 = Lowest 4 = Data gaps			
Fungicide	A	Tier 4	Root Shield Drench	<i>Trichoderma harzianum</i>	
Insecticide	A	Tier 4	Gentrol IGR Concentrate	hydroprene	
Fungicide	A	Tier 4	Serenade	Bacillus subtilis	
Fungicide	A	Tier 4	TurfShield	Trichoderma strain	
Water applied herbicide	A	Tier 3	Aquashade	acid yellow-23, acid blue 4	
Herbicide	A	Tier 3	Bio-Weed	corn gluten meal	

## GREEN MATERIALS LIST

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Insecticide	A	Tier 3	Cinnamite	Cinnamaldehyde	
Adjuvant	A	Tier 3	CMR Silicone Surfactant	polymethylsiloxane, nonionic	
Plant hormone	A	Tier 3	Dip'n Grow	indole-3-butyric acid	
Insecticide	A	Tier 3	Hot Pepper Wax Insect Repellent	capsaicin .00014%	
Insecticide	A	Tier 3	Javelin WG	<i>Bacillus thuringiensis</i>	
Fungicide	A	Tier 3	Kaligreen	potassium bicarbonate	
Insecticide	A	Tier 3	Mosquito Dunks	Bacillus Thuringiensis	
Insecticide	A	Tier 3	Pharoid	methoprene	
Insecticide	A	Tier 3	Roach Terminal	oxypurinol, xanthine	
Molluscicide	A	Tier 3	Sluggo Slug and Snail Bait	iron phosphate	
Adjuvant	A	Tier 3	Spraytech Oil	soybean oil	
Insecticide	A	Tier 3	Vectobac-G Biological Mosquito Larvicide	Bacillus Thuringiensis	
Vertebrate	A	Tier 3	Vectolex G Biological Mosquito Larvicide	bacillus sphaericus	
Insecticide	A	Tier 2	Avert Cockroach Bait Station	abamectin	
Insecticide	A	Tier 2	Avert Cockroach Gel	abamectin	
Insecticide	A	Tier 2	Gourmet Liquid Ant Bait	Disodium octaborate tetrahydrate (DOT) - 2%	
Fungicide / Insecticide	A	Tier 2	JMS Stylet Oil	petroleum distillates	
Insecticide	A	Tier 2	Prescription Treatment Brand Advance Liquid Ant Bait	Boric acid 1%	
Insecticide	A	Tier 2	Uncle Alberts Ant Bait	Disodium Octaborate Tetrahydrate	
Fungicide / Insecticide	A	Tier 2	Valent Volck Supreme Spray	petroleum oil	

# GREEN MATERIALS LIST

ATTACHMENT 1

## Seattle Tier 3

<http://www.ci.seattle.wa.us/environment/pesticides.htm>

Type		Tier	Product	Active	Notes
Insecticide		Tier 3	Agnique MMF	ethoxylated alcohol	*may be toxic to aquatic invertebrates
Herbicide		Tier 3	Allpro Moss & Algae Killer	potassium salts of fatty acids	no health or environmental risks identified by EPA
Fungicide		Tier 3	AQ10 Biofungicide	Ampelomyces quisqualis	
Insecticide		Tier 3	Bactospein	Bacillus thuringiensis	* may be pathogenic to honeybees.
Insecticide		Tier 3	BotaniGard 22WP	Beauveria bassiana	* may be pathogenic to honeybees.
Insecticide		Tier 3	BotaniGard ES	Beauveria bassiana	
fungicide/Insecticide		Tier 3	Cinnamite	cinnamaldehyde	
Insecticide		Tier 3	Concern Insect Killing Soap	potassium salts of fatty acids	EPA registration not required due to low risk
Insecticide		Tier 3	Dipel 2X or 4L	B.t.k.	
Other		Tier 3	Embark	mefluidide	indoor use only
Insecticide		Tier 3	Enstar 2E	s-kinoprene	
Fungicide		Tier 3	First Step	potassium bicarbonate	
Insecticide		Tier 3	Foray 48B	B.t.k	
Fungicide		Tier 3	Kaligreen	potassium bicarbonate	converted to naturally-occurring iron salts
Herbicide		Tier 3	Moss-Out Granules (L-M)	ferrous sulfate monohydrate	
Insecticide		Tier 3	M-PEDE (soap)	potassium salts of fatty acids	subregistration of Thuricide, see below
Insecticide		Tier 3	Natural Guard B.t.	B.t.k.	
Insecticide		Tier 3	Nemasys	Steinernema feltiae	
Fungicide		Tier 3	Remedy	potassium bicarbonate	
Fungicide		Tier 3	Safer Garden Fung	sulfur	
Insecticide		Tier 3	Safer Insecticidal Soap	potassium salts of fatty acids	
Herbicide		Tier 3	Safer Moss/Algae	potassium salts of fatty acids	
Herbicide		Tier 3	Safer Superfast RTU	potassium salts of fatty acids	
Other		Tier 3	Sluggo	iron phosphate	product not yet EPA-registered; placement tentative
Herbicide		Tier 3	TerraCyte	sodium carbonate peroxyhydrate	surfactant
Other		Tier 3	Terwet 1800	alkyl polyglycoside	
Other		Tier 3	Worry Free	iron phosphate	

## YELLOW MATERIALS LIST

ATTACHMENT 1

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### San Francisco Tier 2 Limited

Source and Explanation of Protocol: <http://temp.sfgov.org/sfenvironment/aboutus/innovative/ipm/>

Pesticide Type	Use Category	Hazard Tier	Product Name	Active Ingredients	Use Limitations
	A = allowed L= limited L* = special concern	1 = Highest 2 = Moderate 3 = Lowest 4 = Data gaps			
Herbicide	L	Tier 2	Ezject Selective Injection Herbicide	glyphosate	Tree stump injection especially where resprouting is likely, prefer mechanical methods when possible such as stump grinding
Herbicide	L	Tier 2	Garlon 4	triclopyr	Targeted treatment of invasive exotics in parks,natural areas, right of ways. OK for fuel reduction, pilot alternative strategies.
Herbicide	L	Tier 2	Oust XP Herbicide by DuPont	sulfometuron-methyl	Rights of ways.
Herbicide	L	Tier 2	Roundup Pro Herbicide	glyphosate	Spot application of areas inaccessible or too dangerous for hand methods, right of ways, utility access, fire prevention. Use for cracks in hardscape and edging only as last resort. OK for rennovation but must put in place weed prevention measures.
Herbicide	L	Tier 2	Roundup ProDry	glyphosate	same limitations as Roundup Pro
Herbicide	L	Tier 2	Turflon Ester (post)	triclopyr	Targeted treatment of turf; broadcast application requires exemption
Insecticide	L	Tier 2	Agnique MMF	isooctadecyl-hydroxyl	Standing water, human health concerns.
Insecticide	L	Tier 2	Altosid Briquets by Zoecon	methoprene	PUC for contained sewage treatment facilities. For public health use. Not for use in estuarine environments.
Insecticide	L	Tier 2	Altosid Pellets by Zoecon	methoprene	Not for use in estuarine environments
Insecticide	L	Tier 2	Avid 0.15 EC	avermectin	Nursery use only.
Insecticide	L	Tier 2	Azatin XL	Azadirachtin	Nurseries and established plants for interiorscapes.
Insecticide	L	Tier 2	Borid	boric acid	limit human exposure to dust

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Insecticide	L	Tier 2	Golden Bear Mosquito Larvicide GB-1111	Aliphatic Petroleum Hydrocarbon	Apply only in conjunction with appropriate prevention measures (such as increasing water flow), or when prevention measures are impractical. Use within requirements on vector control activities set by the Calif. Dept. of Health Services.
Insecticide	L	Tier 2	Maxforce FC Professional Insect Control Ant Bait Stations	fipronil	Minimize use through prevention, possible concern over active ingredient.
Insecticide	L	Tier 2	MaxForce FC Professional Insect Control Ant Killer Gel	fipronil .001%	Minimize use through prevention, possible concern over active ingredient.
Insecticide	L	Tier 2	Maxforce FC Professional Insect Control Roach Bait Stations	fipronil	Minimize use through prevention, possible concern over active ingredient.
Insecticide	L	Tier 2	Maxforce IBF4 Carpenter Ant Bait	fipronil	Minimize use through prevention, possible concern over active ingredient
Insecticide	L	Tier 2	Maxforce Roach Killer Bait Gel	fipronil	Minimize use through prevention, possible concern over active ingredient
Insecticide	L	Tier 2	M-pede Insecticide/Fungicide	potassium salts/fatty acids	Nursery, specialty gardens, and Africanized Honey Bees.
Insecticide	L	Tier 2	Niban Granular Bait	orthoboric acid	Outdoor restricted to planted areas, prefer containers; indoor must be in containers or inaccessible to humans
Insecticide	L	Tier 2	PT Brand Wasp-Freeze Wasp and Hornet Killer Formula 1	phenothrin, allethrin, CO2	Use only when a concern for public safety.
Insecticide	L	Tier 2	PT Brand Wasp-Freeze Wasp and Hornet Killer Formula 1	phenothrin, allethrin, CO2	Use only when a concern for public safety.
Insecticide	L	Tier 2	Saf-T-Side	paraffinic oil	Trace of alkyl-phenol ethoxylates, avoid contact with surface waters.
Insecticide	L	Tier 2	Terro Ant Killer II Liquid Ant Baits	sodium tetraborate	
Insecticide	L	Tier 2	The Ecology Works Dust Mite and Flea Control	Disodium octaborate tetrahydrate (DOT) -98%	For flea and dust mite control when mechanical methods are impractical, in conjunction with prevention. Limit human exposure to dust.
Vertebrate	L	Tier 2	Ditrac supersize blox	diphacinone	Concern over 2nd poisoning, see site specific limits.

## YELLOW MATERIALS LIST

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Vertebrate	L	Tier 2	Eaton's All-Weather Bait Blocks Rodenticide with Apple Flavorizer	diphacinone 0.005%	Concern over 2nd poisoning, see site specific limits.
Vertebrate	L	Tier 2	Gopher Getter type 2 Bait by Wilco	chloro-phacinone	Damage to: dams, levies, athletic fields, active recreation areas, structures, high cultural value or landmark areas. Public Health concerns.
Vertebrate	L	Tier 2	JB Eaton Top Gun All-Weather Bait Block Rodenticide	bromethalin	Limited use to avoid rodent aversion to one specific bait. Use only in locked bait stations. High concern over secondary poisoning of birds.
Vertebrate	L	Tier 2	JT Eaton Answer for the Control of Pocket Gophers	diphacinone	Damage to: dams, levies, athletic fields, active recreation areas, structures, high cultural value or landmark areas. Public Health concerns.
Water applied herbicide	L	Tier 2	Aquamaster Herbicide (equivalent to Rodeo)	Glyphosate	May damage non-target plants. Use for emergent plants in ponds, lakes, drainage canals, and areas around water or within watershed areas. Only as a last resort when other management practices are ineffective. NOTE: Equivalent to "Rodeo Emerged Aquatic Weed and Brush Herbicide," another product. Rodeo in storage may be used under the same limitations.
Water applied herbicide	L	Tier 2	Sonar A.S.	fluridone	Emergent plants in ponds, lakes, drainage canals. Only as a last resort when other mgmt. practices are ineffective.

### Seattle Tier 2

Source and Explanation of Protocol: <http://www.ci.seattle.wa.us/environment/pesticides.htm>

Type		Tier	Product	Active	Notes
Fungicide		Tier 2	Aliette	fosetyl aluminum	toxic to aquatic invertebrates
Insecticide		Tier 2	Altosid XR Briquets	methoprene	toxic to aquatic invertebrates
Insecticide		Tier 2	Altosid XR-G	methoprene	no data on persistence, but strongly bound to soil
Insecticide		Tier 2	ARI Wasp & Hornet Killer	tetramethrin;phenothrin	toxic to fish and aquatic invertebrates
Insecticide		Tier 2	Azatin XL	azadirachtin	no data on persistence, but strongly bound to soil
Insecticide		Tier 2	Bee Bopper II	tetramethrin;phenothrin	*contains ethylbenzene as inert ingredient

## YELLOW MATERIALS LIST

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Fungicide		Tier 2	Camelot	copper salts of fatty acids	
Other		Tier 2	Cycocel	chlormequat chloride	hazard to birds of prey; multiple-feeding baits offer more safety margin
Other		Tier 2	D-Con Lim N8	brodifacoum	limit use near water to avoid runoff
Herbicide		Tier 2	Devrinol 50WP	napropamide	limit use near water to avoid runoff
Herbicide		Tier 2	Devrinol 5-G	napropamide	no data on persistence, but strongly bound to soil
Insecticide		Tier 2	Enforcer Wasp & Hornet	phenothrin; tetramethrin	limit use near water to avoid runoff
Herbicide		Tier 2	Expedite	glyphosate	limit use near water to avoid runoff
Herbicide		Tier 2	Expedite II	glyphosate	limit use near water to avoid runoff
Herbicide		Tier 2	Expedite Plus	glyphosate; oryzalin	limit use near water to avoid runoff
Herbicide		Tier 2	Gallery 75 DF	isoxaben	limit use near water to avoid runoff
Herbicide		Tier 2	Garlon 4	triclopyr	limit use near water to avoid runoff
Herbicide		Tier 2	Knock-Out (old formula)	glyphosate	limit use near water to avoid runoff
Herbicide		Tier 2	Krenite	fosamine ammonium	*product is pathogenic to honey bees
Insecticide		Tier 2	Naturalis-O	Beauveria bassiana	*depending on mobility, could be Tier 3
Herbicide		Tier 2	Nature's Glory (RTU)	acetic acid	(same registration as Expedite II, see above)
Herbicide		Tier 2	Nomix Sweep		Suggest avoiding products with a.i. >~30%
Insecticide		Tier 2	Off Insect Repellent	DEET	off-target toxicity mitigated by indoor use
Insecticide		Tier 2	Orthene PT 1300	acephate	indoor use product
Insecticide		Tier 2	Ortho Flying & Crawling Insect Killer	phenothrin; d trans allethrin	limit use near water to avoid runoff
Herbicide		Tier 2	Oust	sulfometuron methyl	limit use near water to avoid runoff
Herbicide		Tier 2	Pathfinder II	triclopyr	limit use near water to avoid runoff
Herbicide		Tier 2	Poast	sethoxydim	
Fungicide		Tier 2	Prostar 70WP	flutolanil	
Insecticide		Tier 2	Raid Flying Insect	allethrin; phenothrin	very high BCF
Insecticide		Tier 2	Raid Wasp & Hornet	tetramethrin; permethrin	BMP for mole control should be developed
Other		Tier 2	Revenge Mole	zinc phosphide	aquatic applications require state permit
Herbicide		Tier 2	Rodeo	glyphosate	

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Insecticide		Tier 2	Rose Defense	neem oil	limit use near water to avoid runoff
Herbicide		Tier 2	Roundup (18% conc)	glyphosate	limit use near water to avoid runoff
Herbicide		Tier 2	Roundup Pro	glyphosate	Possible toxicity to bees based on label of 90% prod.
Insecticide		Tier 2	Safer Bio-Neem	azadirachtin	
Insecticide		Tier 2	Safer Yard & Garden	pyrethrins; fatty acid soap	indoor use only
Insecticide		Tier 2	Summit Sumithrin Greenhouse Spray	phenothrin	
Insecticide		Tier 2	Superior Spray Oil	petroleum distillates	limit use near water to avoid runoff
Herbicide		Tier 2	Surflan 75W	oryzalin	limit use near water to avoid runoff
Herbicide		Tier 2	Surflan AS	oryzalin	
Fungicide		Tier 2	Triact 70	neem oil	limit use near water to avoid runoff
Herbicide		Tier 2	Turflon Ester	triclopyr ester	limit use near water to avoid runoff
Herbicide		Tier 2	Weed Stopper	oryzalin	limit use near water to avoid runoff
Herbicide		Tier 2	XL 2G	benefin; oryzalin	
Insecticide		Tier 2	Zep Insect Repellent	DEET	no data on persistence, but strongly bound to soil
Insecticide		Tier 2	Zep Total Control	tetramethrin; phenothrin	no data on persistence, but strongly bound to soil
Insecticide		Tier 2	ZEP Tox Wasp & Hornet	tetramethrin; phenothrin	

## SPECIAL CIRCUMSTANCE MATERIALS LIST

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This list should serve as a reference document for material selection, and to demonstrate hazard screening protocol. It is not comprehensive of all materials, nor should it be adopted in whole. Sources should be viewed periodically for updates

### **San Francisco Tier 1; Tier 2 Limited Use of Special Concern**

*Source and Explanation of Protocol:*

<http://temp.sfgov.org/sfenvironment/aboutus/innovative/ipm/>

Pesticide Type	Use Category	Hazard Tier	Product Name	Active Ingredients	Use Limitations
	A = allowed L = limited L* = special concern	1 = Highest 2 = Moderate 3 = Lowest 4 = Data gaps			
Fungicide	L*	Tier 1	3336 WP	methy thioallophanate	For use in greenhouse situations only
Insecticide	L	Tier 1	20 Mule Team Tim-Bor Industrial	disodium octaborate	For control and prevention of termites, wood-destroying beetles, and carpenter ants. Recommendation of Branch III pest control operator required for termites and beetles; recommendation of Branch II pest control operator required for carpenter ants.
Insecticide	L	Tier 1	Conserve SC	Spinosad	For use as a last resort in greenhouses. If feasible, alternate with other products to avoid the development of resistance.
Vertebrate	L	Tier 1	Contrac All-Weather Blox	bromadiolone	High concern over 2nd poisoning, see site specific limits.
Vertebrate	L	Tier 1	Final Blox	brodifacoum	Extreme concern over 2nd poisoning, see site specific limits
Fungicide	L*	Tier 1	Heritage Fungicide	azoxystrobin	Consider/emphasize use of compost tea for preventative. To be used only as a spot treatment on greens, highest profile athletic fields. Improve aeration and monitoring programs.
Vertebrate	L	Tier 1	Maki Mini Blocks	bromadiolone	High concern over 2nd poisoning, see site specific limits

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Vertebrate	L	Tier 1	Maki Paraffin Blocks	bromadiolone	High concern over 2nd poisoning, see site specific limits
Insecticide	L*	Tier 1	Marathon 1% Granular Greenhouse and Nursery	imidacloprid	Nursery use for control of white fly, not for use in propagation beds.
Herbicide	L*	Tier 2	Pendulum WDG Herbicide	pendimethalin	One year limit. SFIA landscape use only. Use weed cloth whenever possible. Limit to high priority areas, including new plantings in hazardous areas too dangerous for handweeding. Renovations require exemption.
Herbicide	L*	Tier 1	Proturf New K-O-G Weed Control	dicamba	One year limit. Spot application on greens only when hand-weeding is not feasible. Only for <i>Soliva sessilis</i> and <i>Cotula mexicana</i> in golf greens.
Fungicide	L	Tier 1	Proturf Systemic Fung.	thiophanate-methyl	Greens, highest profile athletic fields.
Insecticide	L*	Tier 1	PT Brand Ultra-Fine Oil	paraffinic oil	One year limit. Nursery and roses control of scale. Try Saf-T-Side and Spraytech oil as replacement.
Fungicide	L*	Tier 1	Rootone Rooting Hormone	Thiram	Nursery use only. Problem with mixing and storage due to talc. Consider Dip'n Grow as alternative.
Vertebrate	L	Tier 1	Talon-G Rodenticide Mini-Pellets (Contains Bitrex)	brodifacoum	Extreme concern over primary and 2nd poisoning, see site specific limits.
Vertebrate	L	Tier 1	Weatherblok Bait with Bitrex	brodifacoum	Extreme concern over 2nd poisoning, see site specific limits

# SPECIAL CIRCUMSTANCE MATERIALS LIST

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## Seattle Tier 1

Source and Explanation of Protocol: <http://www.ci.seattle.wa.us/environment/pesticides.htm>

Notes					
Fungicide		Tier 1	Alamo	propiconazole	persistent
Herbicide		Tier 1	Amitrol-T	amitrole	Carc: EPA 2B, CA, NTP
Insecticide		Tier 1	Ant, Flea & Spider (L/M)	chlorpyrifos; allethrin	off-target toxicity; chlorpyrifos to be cancelled for this use
Fungicide		Tier 1	Arbotect 20-S	thiabendazole	persistent
Other		Tier 1	A-REST	ancymidol	persistence, mobility; possible exception if can be demonstrated that no soil contact occurs
Herbicide		Tier 1	Arsenal	imazapyr	highly mobile
Insecticide		Tier 1	Attain PT 1800	bifenthrin	corrosive; greenhouse use only
Insecticide		Tier 1	Avid	avermectin	bee toxicity
Herbicide		Tier 1	Banner MAXX	propiconazole	persistent
Fungicide		Tier 1	Banrot	etridiazole; thiophanate	corrosive; probable carcinogen
Herbicide		Tier 1	Banvel	dicamba	very highly mobile
Fungicide		Tier 1	Bayleton	triadimafon	*groundwater advisory
Fungicide		Tier 1	Benlate 50DF WP	benomyl	reproductive, endocrine
Herbicide		Tier 1	Blackerry & Brush Block	citric acid, acetic acid	*exempt from registration. MSDS indicates product corrosive. Fate data for acetic acid
Insecticide		Tier 1	Blast Em Wasp & Hornet	propoxur; pyrethrins	prob carcinogen; high mobility
Other		Tier 1	B-Nine	daminozide	probable carcinogen
Other		Tier 1	Bug-Geta Pellets	metaldehyde	fatal to dogs; restrict to bait station
Herbicide		Tier 1	BurnOut	acetic acid	corrosive
Herbicide		Tier 1	Casoron 2%	dichlobenil	*persistent, mobile metabolite
Herbicide		Tier 1	Casoron 4G	dichlobenil	*persistent, mobile metabolite
Fungicide		Tier 1	Chipco 26019	iprodione	likely carcinogen
Fungicide		Tier 1	Chipco 26019 WP	iprodione	likely carcinogen
Insecticide		Tier 1	Claire Golden Jet Bee, Wasp & Hornet Killer	malathion, DDVP, pyrethrins	Prop 65 carcinogen; *EXTOXNET indicates high leaching for dichlorvos
Fungicide		Tier 1	Clearys 3336F	thiophanate methyl	male/female reproductive toxicity

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Insecticide		Tier 1	Combat Roach Control	hydramethylnon	Bait station limits human and eco-exposure, so may move to Tier II; still need label
Fungicide		Tier 1	Compass	trifloxystrobin	*groundwater advisory (metabolites)
Herbicide		Tier 1	Confront	clopyralid; triclopyr	groundwater advisory
Fungicide		Tier 1	Consan	quat ammon chlorides	corrosive
Insecticide		Tier 1	Conserve SC	spinosad	off-target toxicity
Herbicide		Tier 1	Crossbow	triclopyr; 2,4-D	probable endocrine disruptor
Herbicide		Tier 1	Curtail M	MCPA; clopyralid	very highly mobile
Insecticide		Tier 1	Cygon	dimethoate	P waste
Insecticide		Tier 1	Cygon Garden Spray	dimethoate	P waste
Fungicide		Tier 1	Daconil 2787	chlorothalonil	likely carcinogen
Fungicide		Tier 1	Dacthal W-75	chlorothalonil	likely carcinogen
Other		Tier 1	Deadline Bullets	metalddehyde	fatal to dogs; restrict to bait station
Insecticide		Tier 1	Decathlon	cyfluthrin	off-target toxicity
Herbicide		Tier 1	Demoss	soap	corrosive
Insecticide		Tier 1	Diazinon AG500	diazinon	off-target toxicity; not for use on golf courses
Insecticide		Tier 1	Diazinon Plus	diazinon	off-target toxicity; not for use on golf courses
Herbicide		Tier 1	Direx 4L	diuron	known/likely carcinogen
Fungicide		Tier 1	Dithane T/O	mancozeb	probable carcinogen, probable endocrine
Fungicide		Tier 1	Dithane Z-78 WP	zineb	probable endocrine
Herbicide		Tier 1	Drive 75DF	quinclorac	restricted use
Insecticide		Tier 1	Drop Dead (Bioram?)	permethrin, allethrin	off-target toxicity
Insecticide		Tier 1	DuraGuard	chlorpyrifos	chlorpyrifos to be cancelled for this use
Insecticide		Tier 1	Duraplex	chlorpyrifos; cyfluthrin	chlorpyrifos to be cancelled for this use
Insecticide		Tier 1	Dursban 2.3G	chlorpyrifos	off-target toxicity; chlorpyrifos to be cancelled except for golf courses
Insecticide		Tier 1	Dursban 50WP	chlorpyrifos	off-target toxicity; chlorpyrifos to be cancelled except for golf courses
Insecticide		Tier 1	Dursban Pro	chlorpyrifos	off-target toxicity; chlorpyrifos to be cancelled except for golf courses

# SPECIAL CIRCUMSTANCE MATERIALS LIST

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Fungicide		Tier 1	Engage 10G or 75W	pentachloronitrobenzene	can be persistent in some soils; HCB metabolite is prob carcinogen, highly persistent
Herbicide		Tier 1	Envy 2,4-D	2,4-D	corrosive; probable endocrine disruptor
Herbicide		Tier 1	Escort	metsulfuron methyl	highly mobile
Fungicide		Tier 1	Exotherm Termil	chlorothalonil	likely carcinogen
Herbicide		Tier 1	Feed & Weed w/Trimec	2,4-D; MCPP; dicamba	prob endocrine; very highly mobile
Herbicide		Tier 1	Finale	glufosinate ammonium	groundwater advisory
Fungicide		Tier 1	Fore Flowable	mancozeb	probable carcinogen, probable endocrine
Fungicide		Tier 1	Fore SPS	mancozeb	probable carcinogen, probable endocrine
Fungicide		Tier 1	Funginex	triforine	corrosive; reproductive toxicant
Herbicide		Tier 1	Fusilade	fluazifop-p butyl	developmental toxicity
Herbicide		Tier 1	Garlon 3A	triclopyr	highly mobile
Fungicide		Tier 1	Green-Shield	quaternary amm. chlorides	corrosive
Fungicide		Tier 1	Heritage	azoxystrobin	*groundwater advisory (metabolites)
Herbicide		Tier 1	Hyvar XL	bromacil	highly mobile
Other		Tier 1	Kaput	warfarin	teratogen
Fungicide		Tier 1	Karathane WD	dinocap	repro/developmental toxicant
Herbicide		Tier 1	Karmex	diuron	Known/Likely carcinogen
Insecticide		Tier 1	Kelthane	dicofol	known endocrine disruptor
Herbicide		Tier 1	Kerb	pronamide	Restricted because of carcinogen
Herbicide		Tier 1	Knock-Out (current form)	diquat dibromide	Persistent
Insecticide		Tier 1	Knox Out PT1500	diazinon	off-target toxicity
Fungicide		Tier 1	Kocide 101	copper hydroxide	corrosive
Herbicide		Tier 1	Krovar	bromacil; diuron	Known/Likely carc; highly mobile
Herbicide		Tier 1	Lontrel	clopyralid	groundwater advisory
Herbicide		Tier 1	Low Vol D	2,4-D	Restr use; prob endocrine disruptor
Insecticide		Tier 1	Mach 2	halofenozide	groundwater advisory on label
Insecticide		Tier 1	Malathion 5E	malathion	bee toxicity
Herbicide		Tier 1	Manage	halosulfuron methyl	groundwater advisory

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Insecticide		Tier 1	Marathon 1G	imidacloprid	exception to aquatic hazard for indoor (greenhouse) use
Insecticide		Tier 1	Mavrik Aquaflow	tau-fluvalinate	repro/devo toxicant; aquatic tox
Insecticide		Tier 1	Meter Mist Insect Killer	pyrethrins, PBO, MGK 264	metered dispenser approach may conflict with IPM decisionmaking
Fungicide		Tier 1	Microcop	basic copper sulfate	bioaccum???
Herbicide		Tier 1	Monobor chlorate	sodium tetraborate; sodium chlorate	corrosive; persistent; highly mobile
Herbicide		Tier 1	Moss-Out	ferric sulfate, anhydrous	corrosive; no data on environmental fate, but leaching is unlikely according to EPA
Herbicide		Tier 1	Nature's Glory (Conc)	acetic acid	corrosive to eyes
Herbicide		Tier 1	Norosac 4G	dichlobenil	persistent, mobile metabolite
Fungicide		Tier 1	Nulife w/ Fore	mancozeb	probable carcinogen, probable endocrine
Herbicide		Tier 1	Ornamec	fluazifop-p butyl	developmental toxicity
Insecticide		Tier 1	Orthene	acephate	off-target toxicity
Insecticide		Tier 1	Orthene 75S	acephate	bee toxicity
Insecticide		Tier 1	Orthene Turf, Tree	acephate	bee toxicity
Insecticide		Tier 1	Orthenex	acephate; triforine; fenbutatin oxide	corrosive; highly toxic to bees; contains an organotin compound
Fungicide		Tier 1	Ortho Daconil	chlorothalonil	likely carcinogen
Herbicide		Tier 1	Ortho Diquat	diquat dibromide	persistent
Insecticide		Tier 1	Ortho Home Pest Control	chlorpyrifos	bee toxicity
Insecticide		Tier 1	Ortho Hornet & Wasp	propoxur	probable carcinogen; highly mobile
Insecticide		Tier 1	Ortho Hornet & Wasp2	diazinon; pyrethrins	off-target toxicity
Insecticide		Tier 1	Ortho Methoxycor	methoxycor	known endocrine disruptor; persistent
Insecticide		Tier 1	Ortho Rose & Flower	pyrethrins	
Insecticide		Tier 1	Ortho Sevin Garden Dust	carbaryl	off-target toxicity
Insecticide		Tier 1	Ortho Systemic Rose & Flower	disulfoton	insecticide/fert mixture
Insecticide		Tier 1	Ortho-Klor Indoor/Outdoor	chlorpyrifos	bee toxicity
Insecticide		Tier 1	Oxamyl	oxamyl	restricted due to toxicity; groundwater advisory

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Fungicide		Tier 1	Parflo	pentachloronitrobenzene	can be persistent in some soils; HCB metabolite is prob carcinogen, highly persistent
Herbicide		Tier 1	Pendulum 3.3EC	pendimethalin	inert ingredient (1,2-dichloroethane) is probable carcinogen
Herbicide		Tier 1	Pendulum WDG	pendimethalin	
Herbicide		Tier 1	Pennant	metolochlor	highly mobile, with soil half-life near persistent range (90 d)
Fungicide		Tier 1	Penstar Flo	pentachloronitrobenzene	can be persistent in some soils; HCB metabolite is prob carcinogen, highly persistent
Insecticide		Tier 1	Pentac Aquaflo	dienochlor	persistent
Fungicide		Tier 1	Phyton-27	copper sulfate	corrosive
Insecticide		Tier 1	Pointer	imidaclopyrid	off-target toxicity (may be mitigated by application method)
Fungicide		Tier 1	Polysul Dormant Spray	calcium polysulfide	corrosive
Herbicide		Tier 1	Power Zone	MCPA, MCPP, dicamba, carfentrazone-ethyl	highly mobile
Insecticide		Tier 1	Preclude PT2100	fenoxycarb	probable carcinogen
Herbicide		Tier 1	Princep Caliber 90	simazine	highly mobile; groundwater advisory
Insecticide		Tier 1	Prolink Bee & Wasp Killer		appears to be subregistration of Claire Golden Jet (see above)
Insecticide		Tier 1	Proxol 80SP	trichlorfon	aquatic toxicity
Insecticide		Tier 1	PT 1600 X-clude	pyrethrins	likely carcinogen
Insecticide		Tier 1	Pyreth-It PT 1100	pyrethrins	
Insecticide		Tier 1	Raid Ant & Roach	permethrin; pyrethrins	indoor use product
Insecticide		Tier 1	Resmethrin PT 1200	resmethrin	developmental toxicity
Herbicide		Tier 1	Reward LS	diquat dibromide	persistent
Fungicide		Tier 1	Ridomil 2E	metalaxyl	highly mobile
Herbicide		Tier 1	Ronstar G	oxadiazon	CA reproductive list
Herbicide		Tier 1	RootX	dichlobenil	persistent, mobile metabolite

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Fungicide		Tier 1	Rubigan AS	fenarimol	persistent, mobile
Fungicide		Tier 1	Rubigan EC	fenarimol	persistent, mobile
Insecticide		Tier 1	Safer Home Patrol	permethrin	aquatic toxicity (exception if used indoors)
Insecticide		Tier 1	Scimitar WP	lamda-cyhalothrin	aquatic toxicity
Fungicide		Tier 1	Scotts 14-3-3 FFII	pentachloronitrobenzene	can be persistent in some soils; HCB metabolite is prob carcinogen, highly persistent
Fungicide		Tier 1	Scotts 23-3-5 + Fung 8	thiophanate; iprodione	Likely carcin; * toxic catfish
Herbicide		Tier 1	Scotts 30-5-5 w Confront	triclopyr; clopyralid	Highly mobile
Herbicide		Tier 1	Scotts 32-4-3 w Dicot	2,4-D; MCPP; dicamba	Highly mobile
Herbicide		Tier 1	Scotts Fluid Broadleaf	2,4-DP; 2,4-D	corrosive; prob endocrine disruptor
Fungicide		Tier 1	Scotts Fluid Fung	thiophanate; iprodione	Likely carcin; * toxic catfish
Fungicide		Tier 1	Scotts Fungicide 8	thiophanate; iprodione	Likely carcin; * toxic catfish
Fungicide		Tier 1	Scotts Fungicide 9	chloroneb; thiophanate	persistent (chloroneb)
Fungicide		Tier 1	Scotts Fungicide X	iprodione	Likely carcinogen
Other		Tier 1	Slug and Snail Line	metaldehyde	fatal to dogs; restrict to bait station
Herbicide		Tier 1	Snapshot	trifluralin; isoxaben	prob endocrine; bioconcentration (trifluralin); Ecology PBT
Herbicide		Tier 1	Speed Zone	carfentrazone, 2,4-D, mecoprop acid, dicamba acid	
Insecticide		Tier 1	Spray-Nox II	pyrethrins	
Fungicide		Tier 1	Subdue 2E	metalaxyl	highly mobile
Insecticide		Tier 1	Talstar GC flowable	bifenthrin	off-target toxicity
Insecticide		Tier 1	Talstar GC granular	bifenthrin	off-target toxicity
Insecticide		Tier 1	Talstar Lawn & Tree	bifenthrin	off-target toxicity
Insecticide		Tier 1	Tame 2.4EC	fenpropathrin	off-target toxicity
Insecticide		Tier 1	Tempo 20 WP	cyfluthrin	restricted use, not for use on golf courses, off-target toxicity

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Fungicide		Tier 1	Terraclor 75 WP	pentachloronitrobenzene	can be persistent in some soils; HCB metabolite is prob carcinogen, highly persistent
Insecticide		Tier 1	Thiodan 50WP	endosulfan	restricted, Category I pesticide
Herbicide		Tier 1	Topsite	imazapyr; diuron	Known/Likely carcinogen; highly mobile
Herbicide		Tier 1	Tordon 10K	picloram	groundwater advisory
Herbicide		Tier 1	Transline	clorpyralid	very highly mobile
Herbicide		Tier 1	Treflan 5-G	trifluralin	prob endocrine; bioconcentration (trifluralin); Ecology PBT
Herbicide		Tier 1	Treflan EC	trifluralin	prob endocrine; bioconcentration (trifluralin); Ecology PBT
Herbicide		Tier 1	Trimec	2,4-D; MCP; dicamba	prob endocrine; very highly mobile
Herbicide		Tier 1	Trimec 937	2,4-D; 2,4-DP; dicamba	prob endocrine; very highly mobile
Herbicide		Tier 1	Trimec Bentgrass Form.	2,4-D; MCP; dicamba	prob endocrine; very highly mobile
Fungicide		Tier 1	Truban 30% WP	etridiazole	persistent, probable carcinogen
Fungicide		Tier 1	Turficide 4F	PCNB	can be persistent in some soils; HCB metabolite is prob carcinogen, highly persistent
Herbicide		Tier 1	Vanquish	dicamba	very highly mobile
Insecticide		Tier 1	Wasp-Freeze	allethrin; phenothrin	fish toxicity may be mitigated by use patterns
Herbicide		Tier 1	Weed B Gon	2,4-D; MCP	prob endocrine; very highly mobile, corrosive
Herbicide		Tier 1	Weedar 64	2,4-D	corrosive; probable endocrine disruptor
Insecticide		Tier 1	ZEP Tox II Wasp	propoxur; pyrethrins	label warnings not legible, but should have aquatic tox warning
Insecticide		Tier 1	Zeposector 2	resmethrin	no label warning for aqu tox but active ingred is highly toxic to fish
Fungicide		Tier 1	ZeroTol	hydrogen dioxide	corrosive; highly toxic to bees by direct treatment only
Fungicide		Tier 1	Ziram	ziram	corrosive; WA P waste

## CITY OF SANTA BARBARA

## APPROVED MATERIALS LIST – IPM STRATEGY (Adopted Jan. 2004)

Tier	Product Name	Active Ingredient	Type
1	Bayleton	triadimafon triazole	Fungicide
1	Fumitoxin	aluminum	Other
1	Manage	halosulfuron methyl	Herbicide
1	Quick Pro	glyphosate/diquat	Herbicide
1	Reward	diquat dibromide	Herbicide
1	Rubigan	fenarimol	Fungicide
1	Rubigan EC	fenarimol	Fungicide
1	Subdue	metalaxyl	Fungicide
1	Zp Rode	zinc phosphide	Other
2	Advanced Ant Bait	avermectin B-1	Insecticide
2	Agnique MMF	POE Isoocatadecanol	Insecticide
2	Aliette	fosetyl aluminum	Fungicide
2	Altosid B	methoprene	Other
2	Altosid L	methoprene	Other
2	Altosid P	methoprene	Other
2	Altosid XR	methoprene	Other
2	Aquamaster-Rodeo	glyphosate	Herbicide
2	Dormant	petroleum oil	Insecticide
2	Green Light	Neem oil	Insect/Fung
2	Matran 2	clove oil	Herbicide
2	M-PEDE	potassium salts of fatty acids	Insecticide
2	Rose Defense	Neem oil	Insect/Fung
2	Roundup Pro	glyphosate	Herbicide
2	Safticide Oil	petroleum oil	Insecticide
2	Stylect Oil	Petroleum distillates	Insecticide
2	Sulf-R-Spray	Parafin oil, sulfur	Fungicide
2	Superior Spray Oil	petroleum distillates	Insecticide
2	Surflan	oryzalin	Herbicide
2	Surflan AS	oryzalin	Herbicide
2	Triact	Neem oil	Insect/Fung
2	Trilogy	Neem oil	Insect/Fung
2	Wasp-Freeze	allethrin	Insecticide
2	Wilco Ground Squirrel Bait	diphacinone	Other
2	XL 2G	benefin; oryzalin	Herbicide
3	AllDown	citric acid, acetic acid, garlic	Herbicide
3	Bactimos Pellets	BT	Insecticide
3	Bactimos Wettable	BT	Insecticide
3	Bio-Weed	corn gluten	Herbicide

## ATTACHMENT 2

Tier	Product Name	Active Ingredient	Type
3	BurnOut 2	clove oil	Herbicide
3	Cinnamite	cinnamaldehyde	Insect/Fung
3	Conserve	spinosad	Insecticide
3	Dipel Flowable	BT	Insecticide
3	EcoExempt	Wintergreen Oil	Herbicide
3	Embark	mefluidide	Other
3	Kaligreen	potassium bicarbonate	Fungicide
3	Natura Weed-A-Tak	clove oil	Herbicide
3	Safer Soap	potassium salts of fatty acids	Insecticide
3	Sluggo	iron phosphate	Other
3	Summit BTI Briquets	BT	Insecticide
3	Teknar HP-D	BTI	Insecticide
3	Vectobac G	B.t.i.	Insecticide
4	Avid	Abamectin B-1	Insecticide
4	MAKI	bromadiolone	Other
4	Mecomec	Mecopropionic Acid	Herbicide
4	Medallion	fludioxonil	Fungicide
4	PrimoMax	Trinexapac Ethyl	Other
4	Prostar 70 WP	flutolanil	Fungicide
4	Proxy	ethephon	Other
4	VectoLex CG	bacillus sphaericus	Insecticide

# I. CITY OF SANTA BARBARA APPROVED MATERIALS LIST SORTED BY ZONE

Product Name	Active Ingredient	ZONE	Tier	Type
AllDown	citric acid, acetic acid, garlic	Green	3	Herbicide
Bactimos Pellets	BT	Green	3	Insecticide
Bactimos Wettable	BT	Green	3	Insecticide
Bio-Weed	corn gluten	Green	3	Herbicide
BurnOut 2	clove oil	Green	3	Herbicide
Cinnamite	cinnamaldehyde	Green	3	Insect/Fung
Dipel Flowable	BT	Green	3	Insecticide
EcoExempt	Wintergreen Oil	Green	3	Herbicide
Embark	mefluidide	Green	3	Growth Regulator
Kaligreen	potassium bicarbonate	Green	3	Fungicide
Matran 2 (EPA Registration Exempt)	clove oil	Green	4	Herbicide
Natura Weed-A-Tak	clove oil	Green	3	Herbicide
Safer Soap	potassium salts of fatty acids	Green	3	Insecticide
Sluggo	iron phosphate	Green	3	Other
Summit BTI Briquets	BT	Green	3	Insecticide
Teknar HP-D	BTI	Green	3	Insecticide
Vectobac G	B.t.i.	Green	3	Insecticide
VectoLex CG	bacillus sphaericus	Green	3	Insecticide
Agnique MMF	POE Isoocatadecanol	Yellow	2	Insecticide
Aliette	fosetyl aluminum	Yellow	2	Fungicide
Altosid B	methoprene	Yellow	2	Other
Altosid L	methoprene	Yellow	2	Other
Altosid P	methoprene	Yellow	2	Other
Altosid XR	methoprene	Yellow	2	Other
Aquamaster-Rodeo	glyphosate	Yellow	2	Herbicide
Avid	abamectin	Yellow	2	Miticide/ Insecticide
Dormant	petroleum oil	Yellow	2	Insecticide
Green Light	Neem oil	Yellow	2	Insect/Fung
M-PEDE	potassium salts of fatty acids	Yellow	2	Insecticide
Prostar 70 WP	flutolanil	Yellow	2	Fungicide
Rose Defense	Neem oil	Yellow	2	Insect/Fung
Roundup Pro	glyphosate	Yellow	2	Herbicide
Safticide Oil	petroluem oil	Yellow	2	Insecticide
Stylet Oil	Petroleum distillates	Yellow	2	Insecticide
Sulf-R-Spray	Parafin oil, sulfur	Yellow	2	Fungicide
Superior Spray Oil	petroleum distillates	Yellow	2	Insecticide

# ATTACHMENT 3

Product Name	Active Ingredient	ZONE	Tier	Type
Surflan	oryzalin	Yellow	2	Herbicide
Surflan AS	oryzalin	Yellow	2	Herbicide
Triact	Neem oil	Yellow	2	Insect/Fung
Trilogy	Neem oil	Yellow	2	Insect/Fung
Wasp-Freeze	allethrin	Yellow	2	Insecticide
Wilco Ground Squirrel Bait	diphacinone	Yellow	2	Other
XL 2G	benefin; oryzalin	Yellow	2	Herbicide
<i>All Special Circumstance materials will continue to require exemptions granted by the IPM Advisory Committee, as provided in the City of Santa Barbara IPM Strategy</i>				
Bayleton	triadimafon triazole	S. C.	1	Fungicide
Conserve	spinosad	S. C.	1	Insecticide
Fumitoxin	Aluminum phosphide	S. C.	1	Rodenticide
Manage	halosulfuron methyl	S. C.	1	Herbicide
Medallion	fludioxonil	S. C.	4	Fungicide
Quick Pro	glyphosate/diquat	S. C.	1	Herbicide
Reward	diquat dibromide	S. C.	1	Herbicide
Rubigan	fenarimol	S. C.	1	Fungicide
Rubigan EC	fenarimol	S. C.	1	Fungicide
Subdue	metalaxyl	S. C.	1	Fungicide
Zp Rode	zinc phosphide	S. C.	1	Rodenticide

\* Some previously approved materials have been removed from this list at the discretion of the IPM Coordinator.

# City of Santa Barbara Parks & Recreation Resources Inventory ❖ May 2005



Chase Palm Park and Carousel



Parma Park



Kids' World at Alameda Park

**OPEN SPACE PARKS (12)****Acres 1183**

Douglas Family Preserve	70
Equestrian Circle	5.5
Hale	14
Hidden Valley	18
Honda Valley	20
Gould	368
Laurel Canyon	6.2
Las Positas Valley (undeveloped)	6
Loma Media	1
Parma	200
Rattlesnake Canyon	451
Sheffield Reservoir (completion 12/05)	23

**PASSIVE PARKS (9)****Acres 79**

Alice Keck Park Memorial Garden	4.5
Ambassador	.5
Andree Clark Bird Refuge	42.4
Franceschi	15
Mission Historical & Rose Garden	10.3
Moreton Bay Fig Tree	.5
Orpet	4.2
San Roque	1
Sylvan	1

**NEIGHBORHOOD PARKS (13)****Acres 65**

Bohnett ❖	2.3
Eastside Neighborhood ❖	2
Escondido ❖	2
Hidden Valley ❖	15
Hilda Ray ❖	1.5
La Coronilla	1.5
La Mesa ❖	8.9
Los Robles	1
Parque de los Niños ❖	.5
Plaza Vera Cruz ❖	2
Stevens ❖	25
Sunflower ❖	.5
Willowglen ❖	3

**BEACH PARKS (3)****Acres 43**

East Beach ❖	13
Leadbetter Beach	17
West Beach ❖	13

**COMMUNITY PARKS (9)****Acres 123**

Alameda ❖	9.3
Chase Palm ❖	25
De la Guerra	.5
Leadbetter	7
Oak ❖	17
Ortega ❖	9.5
Plaza del Mar	4.5
Shoreline ❖	15
Skofield	35

**REGIONAL PARKS (2)****Acres 110**

(City-owned land, but not City-managed)

Elings Park (portion of)	94
Santa Barbara Zoological Gardens	16

**SPORTS FACILITIES (11)****Acres 162**

Cabrillo Ball Field	5
Dwight Murphy Field ❖	10.5
La Playa Track (S.B. City College)	8
Las Positas Tennis Courts	3
Los Baños del Mar Pool	n.a.
MacKenzie Park (inc. lawn bowls) ❖	9.5
Municipal Golf Course	109
Municipal Tennis Center	8
Pershing Park (tennis, softball, baseball)	6
Skater's Point	.3
Spencer Adams Park (w/lawn bowls)	3

<b>TOTAL PARKS</b>	<b>59</b>
<b>TOTAL PARK ACRES</b>	<b>1,765</b>
<b>❖ PARK PLAYGROUNDS</b>	<b>22</b>
<b>CITY SWIMMING POOLS</b>	<b>2</b>
<b>CITY TENNIS COURTS</b>	<b>34</b>
<b>COMMUNITY BUILDINGS</b>	<b>8</b>
<b>CITY STREET TREES</b>	<b>23,000</b>
<b>PARK &amp; OPEN SPACE TREES</b>	<b>12,000</b>

**COMMUNITY BUILDINGS**

Cabrillo Pavilion Arts Center & Bathhouse
Carrillo Recreation Center & Gymnasium
Casa las Palmas
Chase Palm Park Recreation & Craft Center
Franceschi House
Franklin Community Center
Lower Westside Community Center (leased)
Louise Lowry Davis Center
MacKenzie Park Lawnbowls Club House
MacKenzie Recreation Building
Ortega Welcome House
Westside Community Center ❖
Youth Sports Center
1235 Chapala Teen Center (1/06)

**COMMUNITY GARDENS**

Children's Orchard (at Parque de los Niños)
Yanonali Street
Rancheria
Pilgrim Terrace

**OTHER CITY-OWNED OR MANAGED PROPERTY**

Cabrillo Boulevard Open Space - 2 acres
Mesa Lane Steps
Parkways and Medians - 80
Thousand Steps

**CITY OWNED BEACHES****3.4 LINEAR MILES**

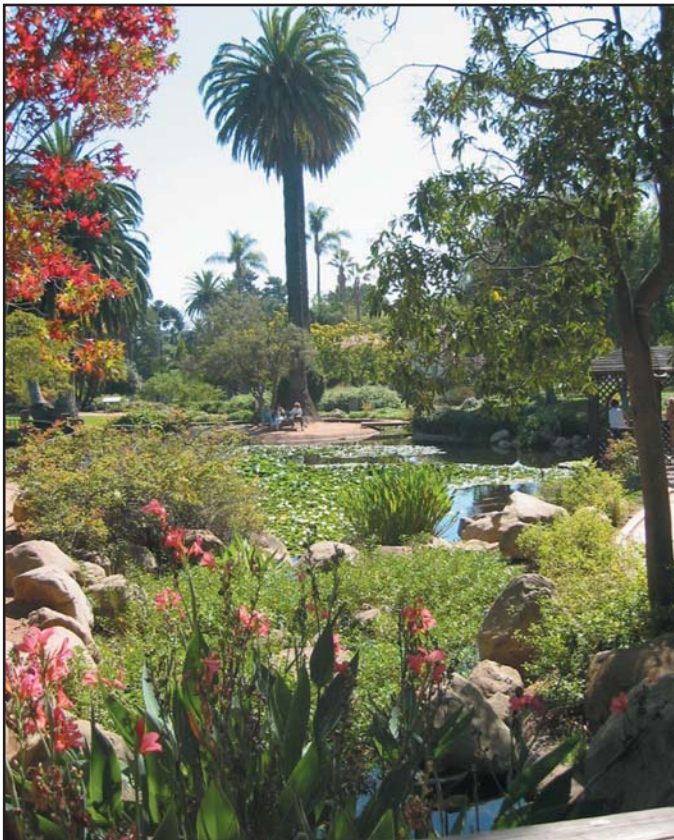
Douglas Family Preserve	.4
East Beach	1.3
Leadbetter Beach	.8
Shoreline Park	.6
West Beach	.3

**CITY PARKS WITH TRAILS****8**

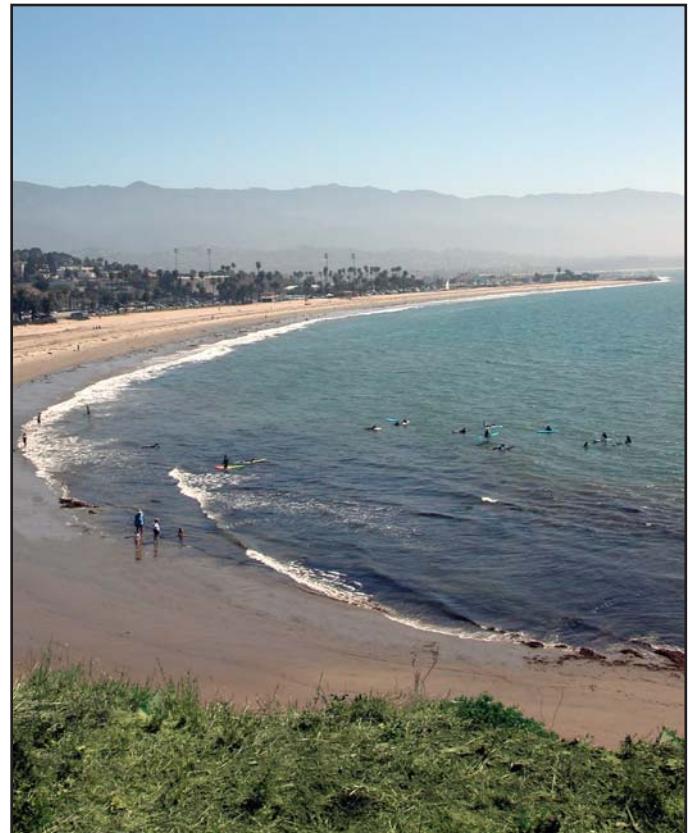
Douglas Family Preserve	Franceschi
Gould	Parma
Hidden Valley	Rattlesnake
Honda Valley	Stevens

# City Parks Features

Parks	Address	Parking	Number of Acres	Picnic Tables				BBQ Grills				Playground	Restroom	Alcohol
Alameda Park	1400 Santa Barbara Street	Street	9.33	x				x	x					
Alice Keck Park	1500 Santa Barbara Street	Street	4.5											
Ambassador Park	100 East Cabrillo Boulevard	Street	0.53											
Andree Clark Bird Refuge	1400 East Cabrillo Boulevard	On-Site	42.42											
Bohnett Neighborhood Park	900 San Pascual	Street	2.25	x	x	x	x							
Cabrillo Ball Field	800 East Cabrillo Boulevard	Street	5								x			
Chase Palm Park	along East Cabrillo Boulevard	Both	25					x	x					
de la Guerra Plaza	Santa Barbara City Hall	Street	0.47											
Douglas Family Preserve	end of Medcliff Road & Selrose Lane	Street	70										yes	
Dwight Murphy Field	Niños Drive and Por La Mar	Both	10.5	x		x	x							
East Beach Park	1400 East Cabrillo Boulevard	On-Site	13	x		x	x							
Eastside Neighborhood Park	Soledad and Yanonali Streets	Street	2	x	x	x	x							
Equestrian Circle	east of the City Limits line and Mission Creek, south of Foothill Road		5.46											yes
Escondido Neighborhood Park	1306 Flora Vista Drive	Street	2	x	x	x								yes
Franceschi Park	1510 Mission Ridge	On-Site	15+	x							x			
Gould Park	Cold Springs Road & Ashley Road	Street	368											yes
Hale Park	Camino Viejo & Eucalyptus Hill Road	Street	14											yes
Hidden Valley Neighborhood Park	Calle de Los Amigos & Torino Drive	Street	18	x	x	x								yes
Hilda McIntyre Ray Neighborhood Park	1420 Kenwood Road	On-Site	1.5	x	x	x	x							yes
Honda Valley	Carrillo Boulevard & Miramonte Drive	Street	20.1											yes
La Coronilla Neighborhood Park	740 Dolores Drive		1.5											
La Mesa Neighborhood Park	295 Meigs Road	On-Site	8.87	x	x	x	x							no
Las Positas Tennis Courts	1002 Las Positas Road	On-Site	3								x			P
Laurel Canyon	Laurel Canyon Road	Street	6.17											yes
Leadbetter Beach Park	Shoreline Drive and Loma Alta	On-Site	17	x	x									P
Loma Media	Alameda Padre Serra & Loma Media		1											yes
Los Baños del Mar Pool	401 Shoreline Drive	Both	N/A								x	x		no
Los Robles Neighborhood Park	4010 Via Diego	Street	1											yes
Mackenzie Park	State and de la Vina Streets	On-Site	9.55	x		x		x	x					P
Mesa Lane Steps	Mesa Lane, south of Cliff Drive	Street												
Mission Historical Park - Ruins - A.C. Postel Memorial Rose Garden	Los Olivos and Laguna Streets	Street	10.24											yes
Moreton Bay Fig Tree	Montecito and Chapala Streets	Street	0.5											no
Municipal Tennis Center	1414 Park Place - Old Coast Highway	Both	8										x	P
Oak Park	300 West Alamar Avenue	Both	17	x	x	x	x							yes
Ornet Park	Alameda Padre Serra & Moreno Road	Street	4.2	x										yes
Ortega Park	600 East Ortega Street	Street	9.5	x	x	x	x							no
Parma Park	Starwood Drive	Street	200	x										yes
Parque de los Niños	520 Wentworth Avenue	Street	0.5								x			no
Pershing Park	100 Castillo Street	Both	6										x	no
Plaza del Mar	23 Castillo Street	Both	4.54										x	no
Plaza Vera Cruz Neighborhood Park	130 East Cota Street	Street	2	x							x			no
Rattlesnake Canyon Park	Adjacent to Skofield Park	Street	451											yes
San Roque Park	Canon Drive	Street	1											yes
Santa Barbara Municipal Golf Club	3500 McCaw Avenue	On-Site	109										x	yes
Shoreline Park	Shoreline Drive and La Marina	On-Site	15	x	x	x	x							P
Skofield Park	1819 Las Canoas Road	On-Site	35	x	x								x	yes
Spencer Adams	1216 de la Vina Street	On-Site	3										x	no
Stevens Neighborhood Park	258 Canon Drive	On-Site	25	x	x	x	x							yes
Sunflower Neighborhood Park	1124 Mason Street	Street	0.5								x			no
Thousand Steps	End of Santa Cruz Boulevard	Street												
West Beach Park	West Cabrillo Boulevard	Street	13											no
Willowglen Neighborhood Park	600 Willowglen Road	Street	3	x	x	x								yes



Alice Keck Park Memorial Garden

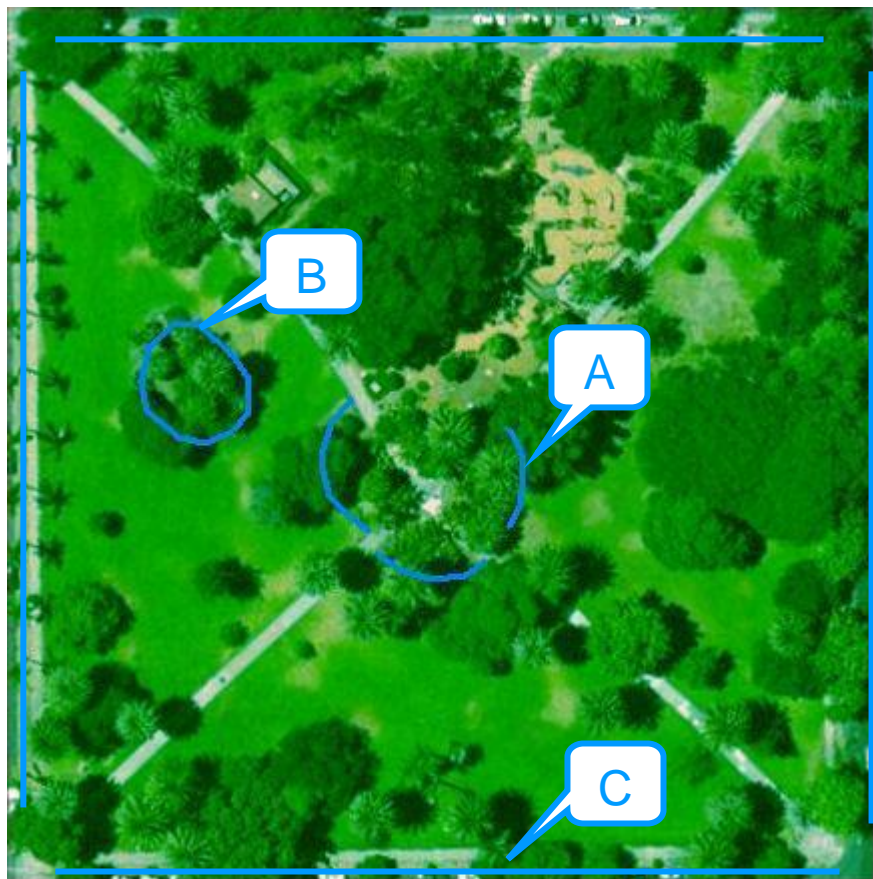


Leadbetter Beach

Map #	Site	Total Acreage	Green Acreage	Yellow Acreage	Special Circumstance	Mow Strip Linear Feet	Mow Strip Cost (\$30 LFT)	Planter Area Modification	Planter Mod Cost (\$ 48 FT <sup>2</sup> )	Fence Replacement LFT	Fence Cost (\$60 LFT)	Park Total Cost
1,2	ALAMEDA PARK	9	9			860	\$25,800	1440	\$691	0	\$0	\$26,491
3	ALICE KECK PARK MEMORIAL GARDENS	4.5	4.5			2000	\$60,000	16500	\$7,920	0	\$0	\$67,920
4	AMBASSADOR PARK	1	1			0	\$0	0	\$0	0	\$0	\$0
5	ANDRÉE CLARK BIRD REFUGE	42	42			2500	\$75,000	0	\$0	0	\$0	\$75,000
6	BOHNETT PARK	3	3			750	\$22,500	0	\$0	0	\$0	\$22,500
7	CABRILLO BALL PARK	4.5	4.1	0.4		420	\$12,600	14500	\$6,960	0	\$0	\$19,560
8,9,10	CHASE PALM PARK	26	26			340	\$10,200	0	\$0	0	\$0	\$10,200
11	CITY HALL / DE LA GUERRA / STORKE PLACITA	1.8	1.8			100	\$3,000	0	\$0	0	\$0	\$3,000
12	DOUGLAS FAMILY PRESERVE	70	70			0	\$0	0	\$0	0	\$0	\$0
13	DWIGHT MURPHY PARK	9	8.9	0.1		2250	\$67,500	7420	\$3,562	2250	\$135,000	\$206,062
14	EAST BEACH PARK	2	2			1200	\$36,000	0	\$0	0	\$0	\$36,000
15	EASTSIDE NEIGHBORHOOD PARK	5	5			350	\$10,500	0	\$0	0	\$0	\$10,500
16	EQUESTRIAN CIRCLE	5.5	5.5			0	\$0	0	\$0	0	\$0	\$0
17	ESCONDIDO PARK	2.3	2.3			680	\$20,400	4800	\$2,304	0	\$0	\$22,704
18	FRANCESCHI PARK	12	7.6	4.4		0	\$0	515070	\$247,234	0	\$0	\$247,234
19	FRANCESCHI PARK LOWER	5	1.2	3.8		0	\$0	218250	\$104,760	0	\$0	\$104,760
20	GOULD PARK / COLD SPRINGS TRAIL	368	368			0	\$0	0	\$0	0	\$0	\$0
21	HALE PARK	14	14			0	\$0	0	\$0	0	\$0	\$0
22	HIDDEN VALLEY PARK	1	1			150	\$4,500	0	\$0	0	\$0	\$4,500
23	HIDDEN VALLEY PARK OPEN SPACE	13	1.2	11.8		0	\$0	0	\$0	0	\$0	\$0
24	HILDA RAY PARK	1	1			130	\$3,900	2800	\$1,344	0	\$0	\$5,244
25	HONDA VALLEY	48	48			0	\$0	0	\$0	0	\$0	\$0
26	LA MESA PARK	9	9			1440	\$43,200	56000	\$26,880	0	\$0	\$70,080
27	LAUREL CANYON	6	6			0	\$0	0	\$0	0	\$0	\$0
28	LEADBETTER BEACH	4.7	4.7			0	\$0	0	\$0	0	\$0	\$0
29	LOS ROBLES PARK	1	1			325	\$9,750	0	\$0	0	\$0	\$9,750
30	MAC KENZIE PARK	7.6	7.3	0.33		1000	\$30,000	26500	\$12,720	0	\$0	\$42,720
31	MESA LANE STEPS	0.4	0.4			0	\$0	0	\$0	0	\$0	\$0
32	MISSION HISTORICAL PARK & A.C.P. ROSE GDN	11	10.5	0.5		650	\$19,500	20250	\$9,720	0	\$0	\$29,220
33	MORETON BAY FIG TREE	0.5	0.5			500	\$15,000	0	\$0	0	\$0	\$15,000
34	OAK PARK	26.5	26.5			1400	\$42,000	30000	\$14,400	0	\$0	\$56,400
35	ORPET PARK	4.5	1	3.5		2065	\$61,950	152775	\$73,332	0	\$0	\$135,282
36	ORTEGA PARK	9.5	9.5			570	\$17,100	1500	\$720	0	\$0	\$17,820
37	PARMA PARK	200	200			0	\$0	0	\$0	0	\$0	\$0
38	PARQUÉ DE LOS NIÑOS	0.5	0.5			0	\$0	0	\$0	0	\$0	\$0
39	PERSHING PARK	6	5.75	0.25		1100	\$33,000	10890	\$5,227	1100	\$66,000	\$104,227
40	PILGRIM TERRACE	2	2			550	\$16,500	0	\$0	0	\$0	\$16,500
41	PLAZA DEL MAR	2	2			0	\$0	0	\$0	0	\$0	\$0
42	PLAZA VERA CRUZ	2	2			900	\$27,000	7500	\$3,600	0	\$0	\$30,600
43	RANCHERIA COMMUNITY GARDENS	0.5	0.5			0	\$0	0	\$0	0	\$0	\$0
44	RATTLESNAKE CANYON	451	451			0	\$0	0	\$0	0	\$0	\$0
45	SAN ROQUE PARK	0.75	0.63	0.12		620	\$18,600	5300	\$2,544	0	\$0	\$21,144
46	SHORELINE PARK	16.5	16.5			950	\$28,500	45900	\$22,032	0	\$0	\$50,532
47	SKOFIELD PARK	35	35			1600	\$48,000	44000	\$21,120	0	\$0	\$69,120
48	STEVENS PARK	25	25			40	\$1,200	4900	\$2,352	0	\$0	\$3,552
49	SUNFLOWER PARK	0.5	0.5			400	\$12,000	0	\$0	0	\$0	\$12,000
50	SYLVAN PARK	1		1		0	\$0	0	\$0	0	\$0	\$0
51	THOUSAND STEPS	0.25	0.25			0	\$0	0	\$0	0	\$0	\$0
52	WEST BEACH	1.75	1.75			0	\$0	7800	\$3,744	0	\$0	\$3,744
53	WILLOWGLEN PARK	3	3			250	\$7,500	23200	\$11,136	0	\$0	\$18,636
	Totals	1476.05	1449.88	26.2	0	26090	\$782,700	1217295	\$584,302	3350	\$201,000	\$1,568,002

# Alameda Park East (1 of 2)

Attachment 6



Green Zone:  
100%

Yellow Zone:  
0%

Red Zone:  
0%

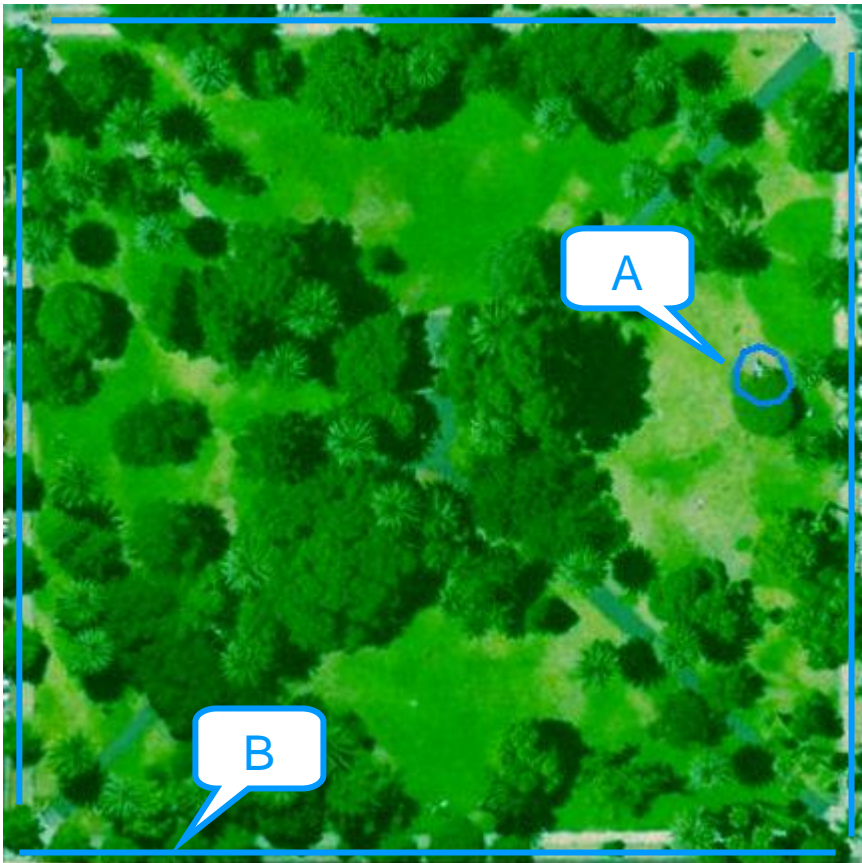
## Zone Descriptions

**This entire park has been zoned Green.**

## Landscape Modifications:

- A. Curbing around palm garden**
- B. Curbing around large tree planter South-West of Restroom**
- C. Planter renovation in all four street-side planter strips**

# Alameda Park West (2 of 2)



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

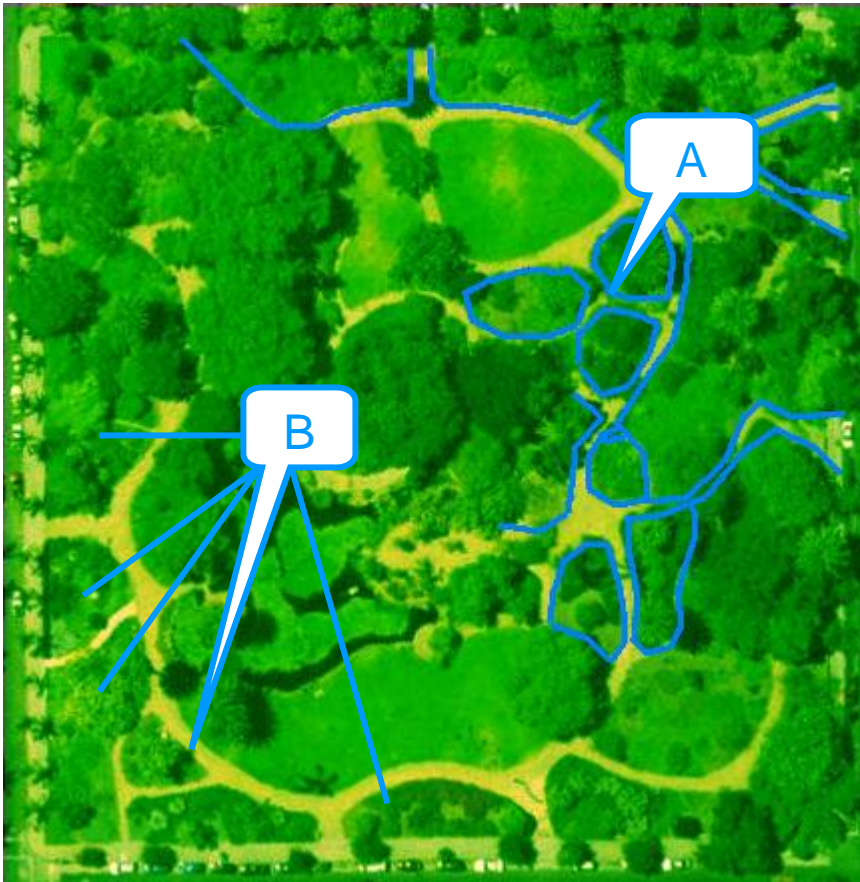
**This entire park has been zoned Green.**

## Landscape Modifications:

- A. Curbing around Eastern picnic area and planter**
- B. Planter renovation in all four street-side planter strips**

# Alice Keck Park Memorial Gardens

Attachment 6



Green Zone:  
100%

Yellow Zone:  
0%

Red Zone:  
0%

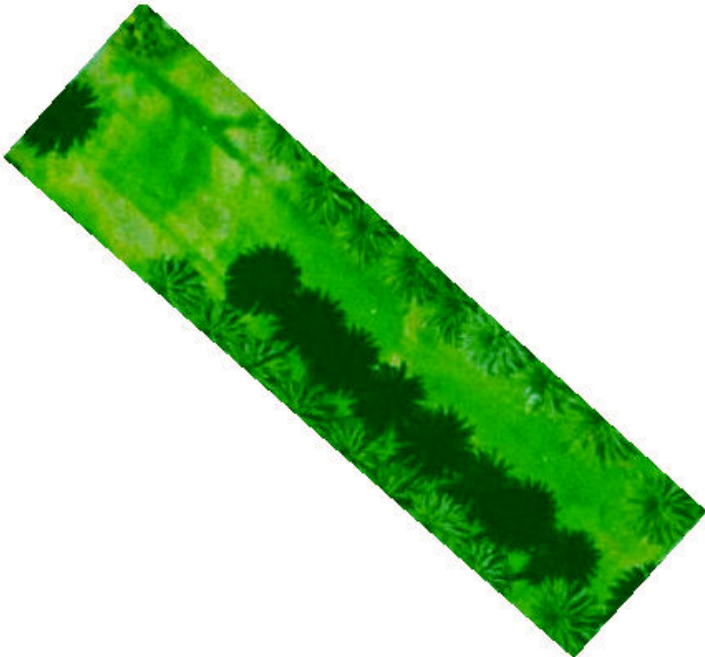
## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

- A. Curbing on all North-Eastern planters
- B. Planter renovation on all South-Western planters

# Ambassador Park



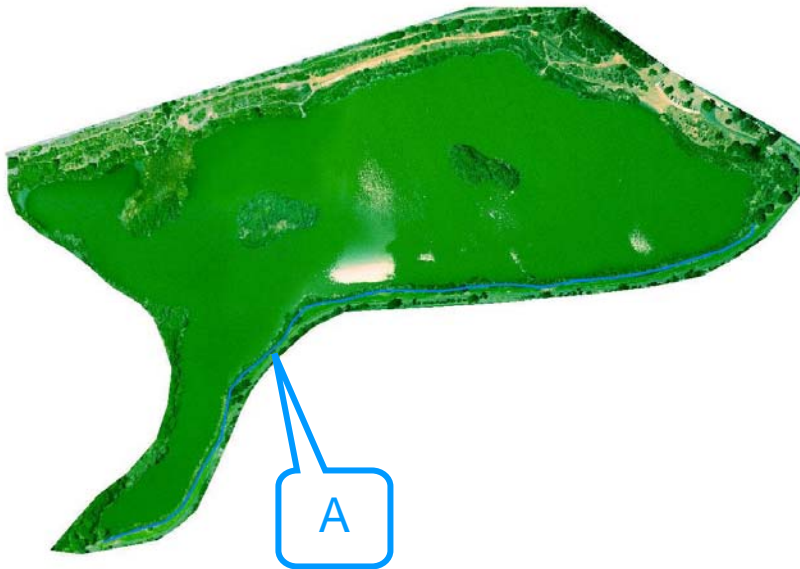
Green Zone:
100%
Yellow Zone:
0%
Red Zone:
0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# Andrée Clarke Bird Refuge



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

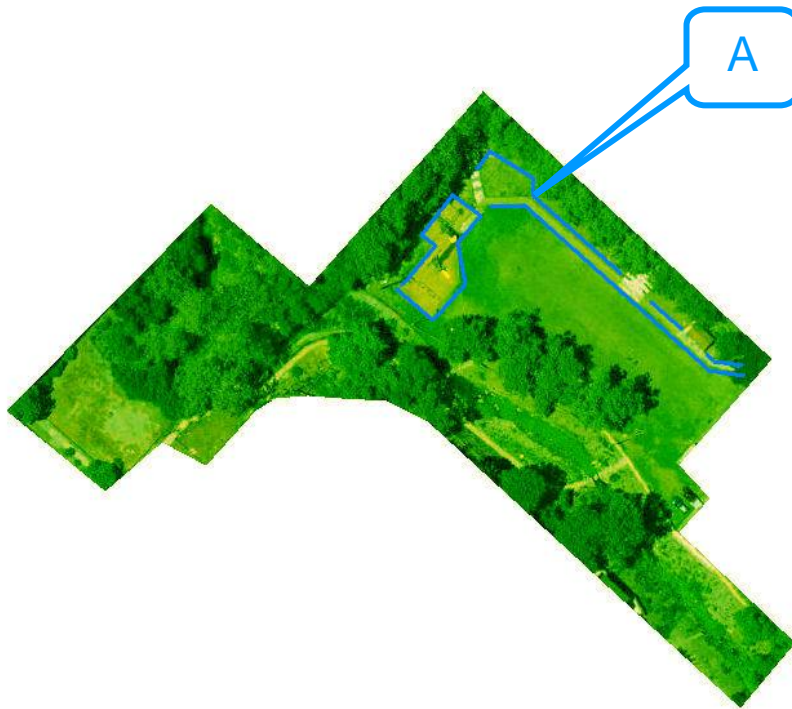
## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

A. Curbing along entire South shore turf-reed line

# Bohnett Park



Green Zone:  
100%

Yellow Zone:  
0%

Red Zone:  
0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

A. Curbing around playground, small North turf, and main walkway

# Cabrillo Ball Park



Green Zone:

92%

Yellow Zone:

8%

Red Zone:

0%

## Zone Descriptions:

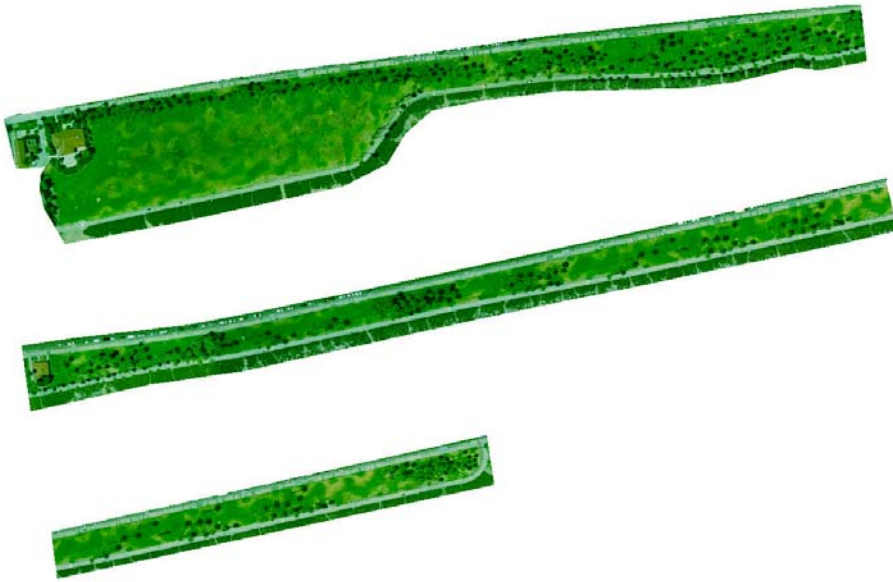
1. Area zoned Yellow due to low risk of exposure and high cost of habitat modification
2. Area zoned Yellow due to low risk of exposure and high habitat modification cost

## Landscape Modifications:

- A. Planter renovation in Cabrillo-side planter strip and end planters
- B. Planter renovation and curbing in Eastern Chromatic Gate planter
- C. Curbing along Eastern turf line
- D. Planter renovation behind bleachers

# Chase Palm Park (1 of 3)

Attachment 6



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# Chase Palm Park Dolphin Fountain Area (2 of 3)



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

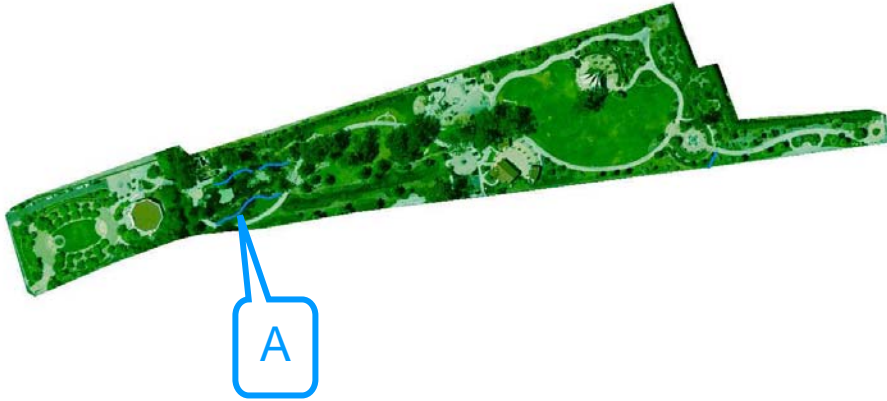
## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# Chase Palm Park Expansion (3 of 3)

Attachment 6



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

A. Curbing along turf bordering pond

# City Hall / De la Guerra Plaza / Storke Placita



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

A. Curbing around Agapanthus planter

# Douglas Family Preserve



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

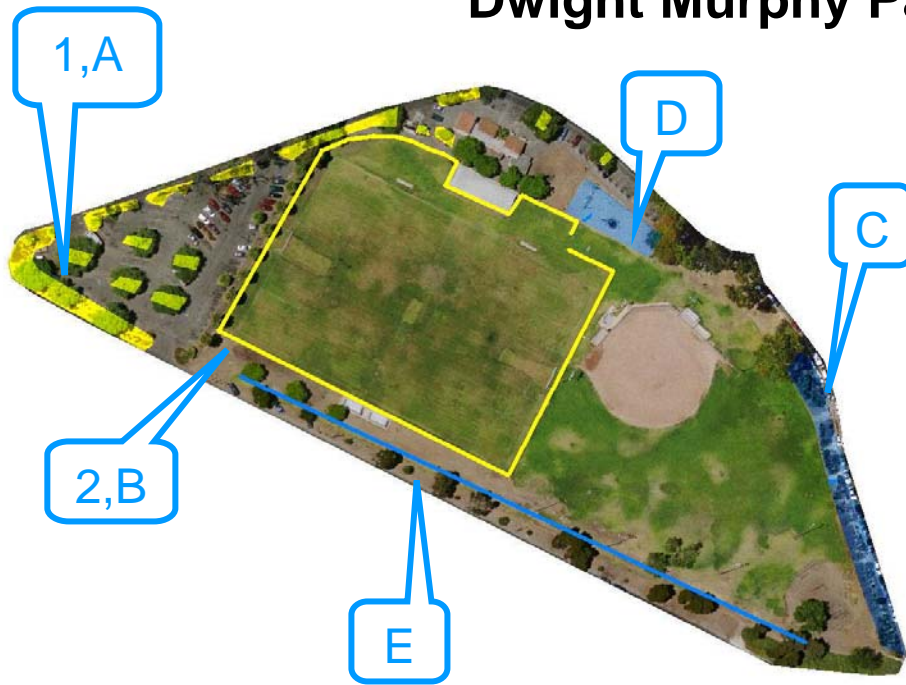
0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# Dwight Murphy Park



Green Zone:  
89%

Yellow Zone:  
9%

Red Zone:  
0%

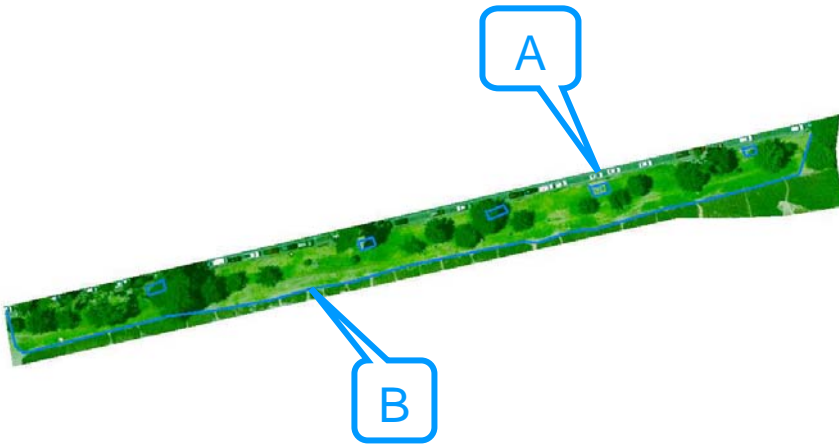
## Zone Descriptions:

1. Area zoned Yellow due to low risk of exposure and high cost of habitat modification
2. Area zoned Yellow due to maintenance necessity

## Landscape Modifications:

- A. Planter renovation in all parking lot and road-side planters
- B. Curbing under all fence lines
- C. Planter renovation in South-East Cistus planter
- D. renovation of playground sand
- E. renovation along drainage swail

# East Beach Park



Green Zone:  
100%

Yellow Zone:  
0%

Red Zone:  
0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

- A. Curbing around picnic pads
- B. Curbing along border of turf and Ice Plant

# Eastside Neighborhood Park

Attachment 6



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

A. Curbing along turf edge following path and picnic area



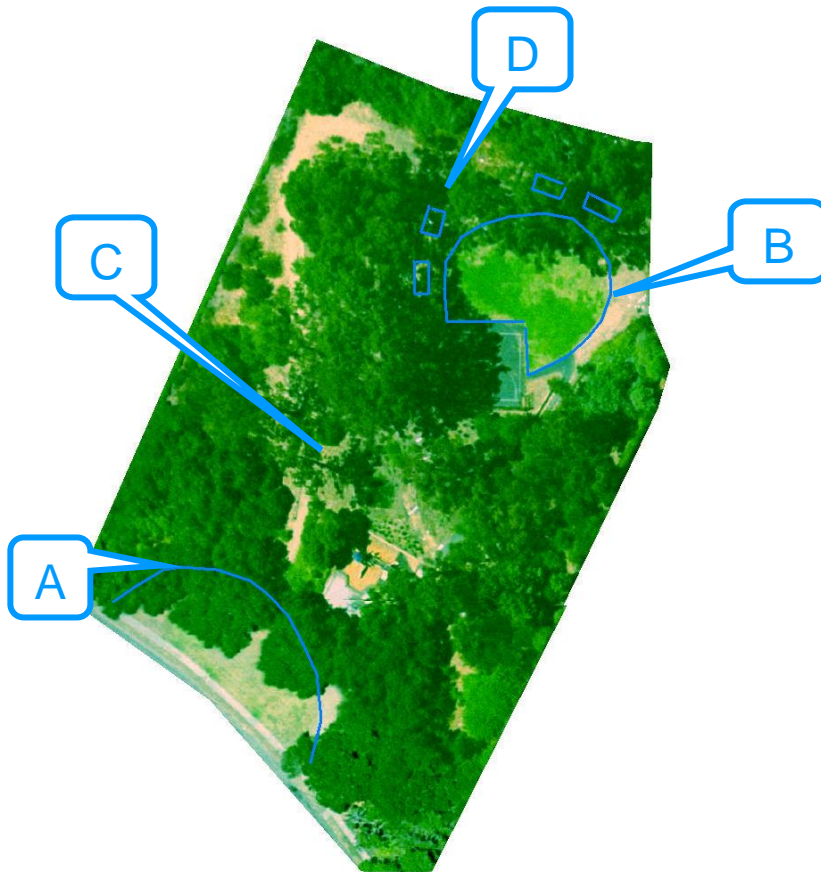
Green Zone:
100%
Yellow Zone:
0%
Red Zone:
0%

Zone Descriptions

This entire park has been zoned Green.

Landscape Modifications:

# Escondido Park



Green Zone:  
100%

Yellow Zone:  
0%

Red Zone:  
0%

## Zone Descriptions

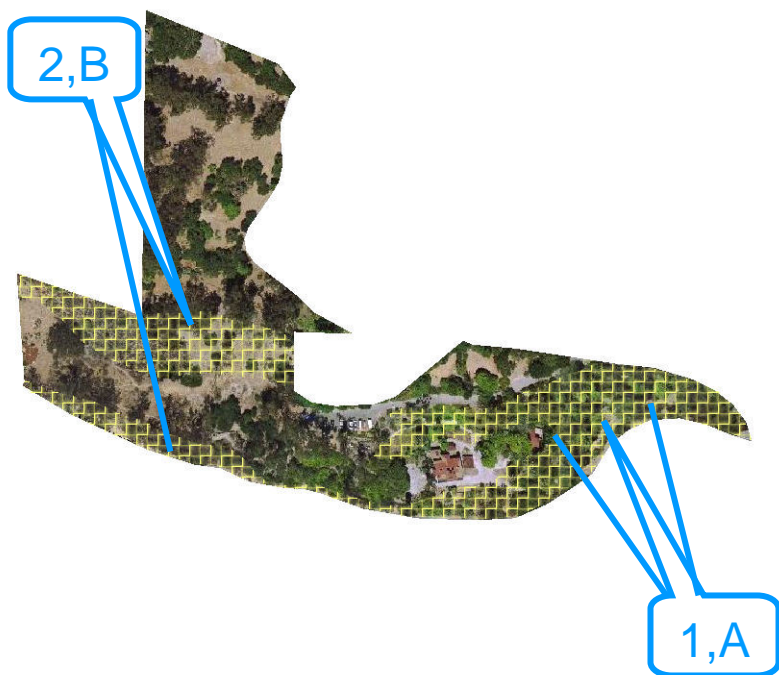
This entire park has been zoned Green.

## Landscape Modifications:

- A. Curbing around upper turf
- B. Curbing around lower turf
- C. Planter renovation in central landscape
- D. Curbing around picnic pads

# Franceschi Park

Attachment 6



Green Zone:

64%

Yellow Zone:

36%

Red Zone:

0%

## Zone Descriptions:

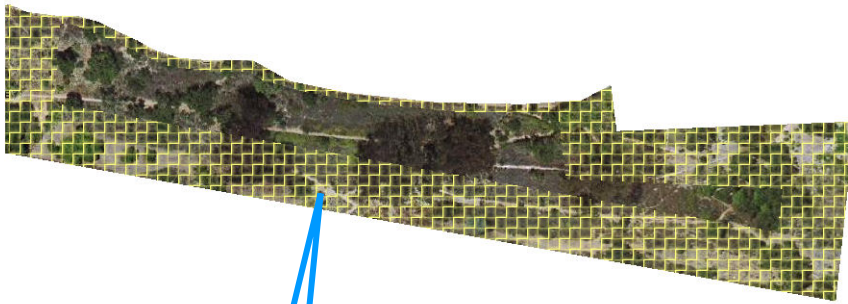
1. Area zoned Yellow due to low risk of exposure and high cost of habitat modification
2. Area zoned Yellow due to low risk of exposure and fuel management requirements

## Landscape Modifications:

- A. Planter renovation in all planters
- B. Development of a “Green” herbicide, and/or additional contract funding

# Lower Franceschi Park

Attachment 6



Green Zone:

24%

Yellow Zone:

76%

Red Zone:

0%

## Zone Descriptions:

1. Area zoned Yellow due to low risk of exposure, fuel management requirements, presence of hazardous plants (poison oak and Euphorbia), and high cost of habitat modification

## Landscape Modifications:

- A. Development of a “Green” herbicide, and/or additional contract funding

# Gould Park / Cold Springs Trail

Attachment 6



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# Hale Park



Green Zone:
100%
Yellow Zone:
0%
Red Zone:
0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# Hidden Valley Park



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

A. Curbing along upper turf

# Hidden Valley Open Space



Green Zone:

9%

Yellow Zone:

91%

Red Zone:

0%

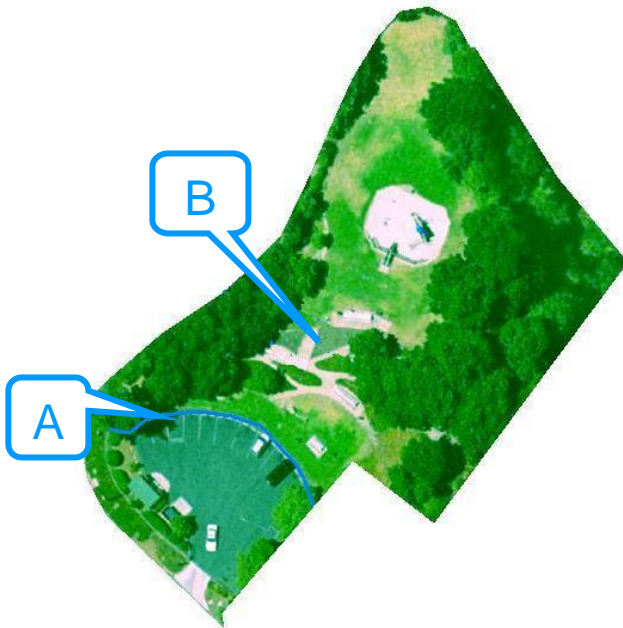
## Zone Descriptions:

1. Area zoned Yellow due to low risk of exposure, high cost of habitat modification, and fuel management requirements

## Landscape Modifications:

- A. Development of a “Green” herbicide, and/or additional contract funding

# Hilda Ray Park



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

**This entire park has been zoned Green.**

## Landscape Modifications:

- A. Curbing along upper edge of top turf area**
- B. Planter renovation in all pathway planters**

# Honda Valley



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

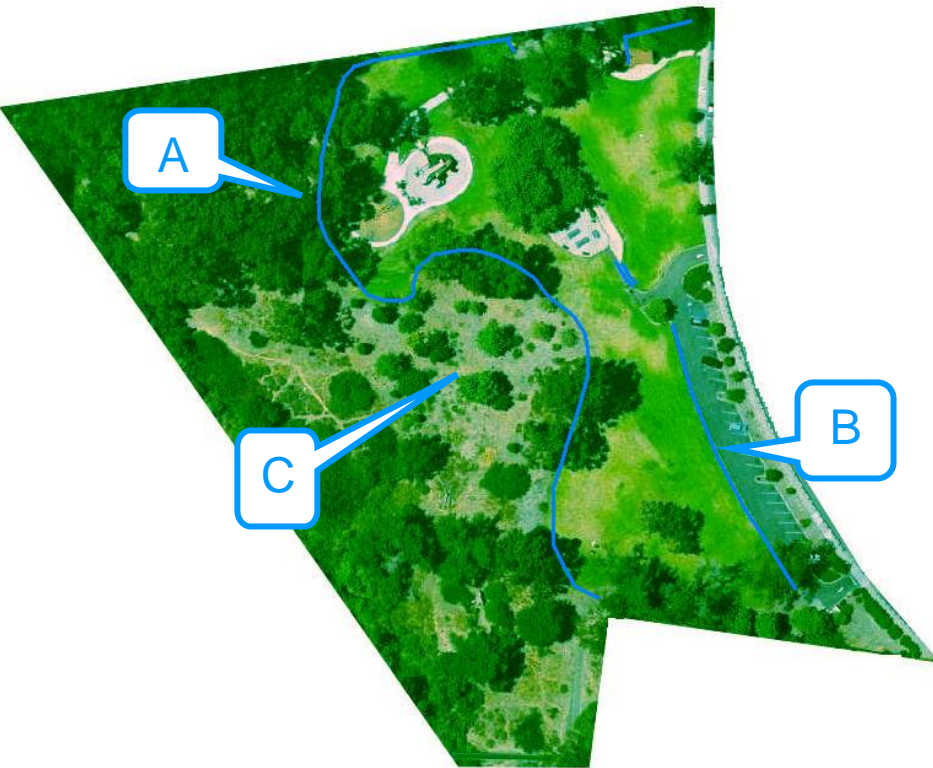
0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# La Mesa Park



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

**This entire park has been zoned Green.**

## Landscape Modifications:

- A. Curbing along Western turf edge**
- B. Curbing along Eastern turf edge**
- C. Planter renovation from tree grove South**

# Laurel Canyon



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# Leadbetter Beach



Green Zone:  
100%

Yellow Zone:  
0%

Red Zone:  
0%

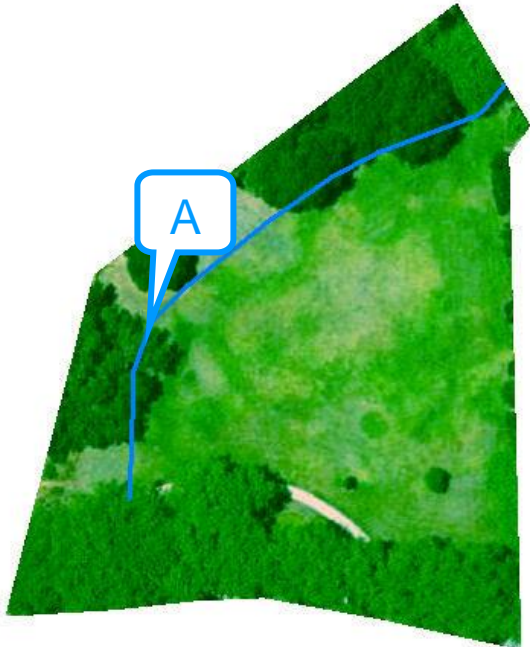
## Zone Descriptions:

This entire park has been zoned Green

## Landscape Modifications:

# Los Robles Park

Attachment 6



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

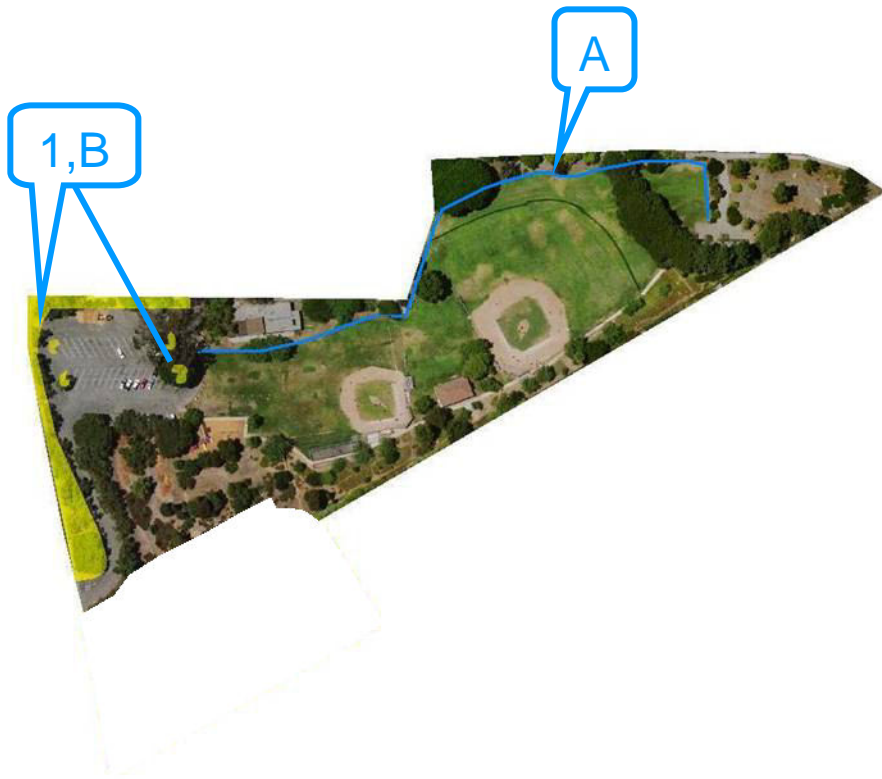
This entire park has been zoned Green.

## Landscape Modifications:

A. Curbing along creek-side turf

# Mackenzie Park

Attachment 6



Green Zone:

96%

Yellow Zone:

4%

Red Zone:

0%

## Zone Descriptions:

1. Area zoned Yellow due to low exposure risk and high cost of habitat modification.

## Landscape Modifications:

- A. Curbing along entire Northern turf border
- B. Planter renovation in all parking lot planters

# Mesa Lane Steps



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# Mission Rose Garden and Historical Park



Green Zone:

95%

Yellow Zone:

5%

Red Zone:

0%

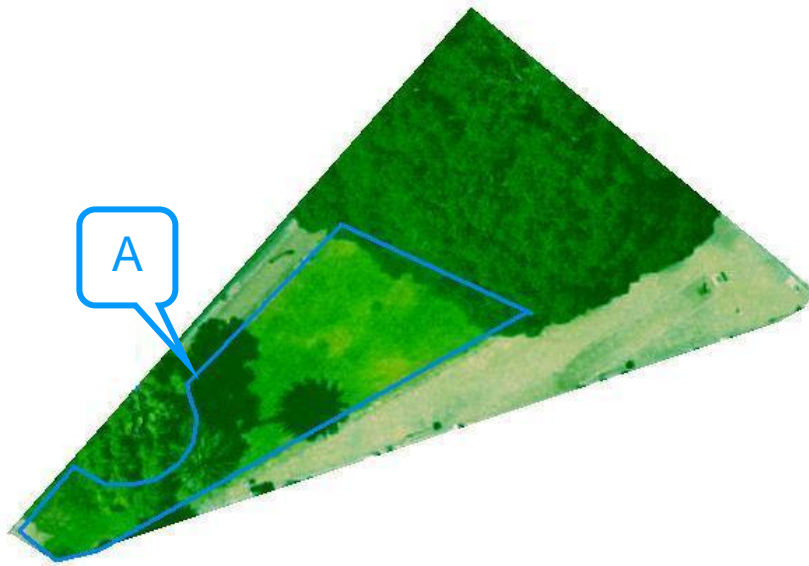
## Zone Descriptions:

1. Area zoned Yellow due to need for historical preservation and high cost of habitat modification
2. Area zoned Yellow due to low exposure risk, high cost of habitat modification, and protection of asset

## Landscape Modifications:

- A. Development of a non-caustic "Green" herbicide
- B. Planter renovation in all rose planters
- C. Curbing along Northern turf edge

# Moreton Bay Fig Tree



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

A. Curbing around all turf edges

# Oak Park



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

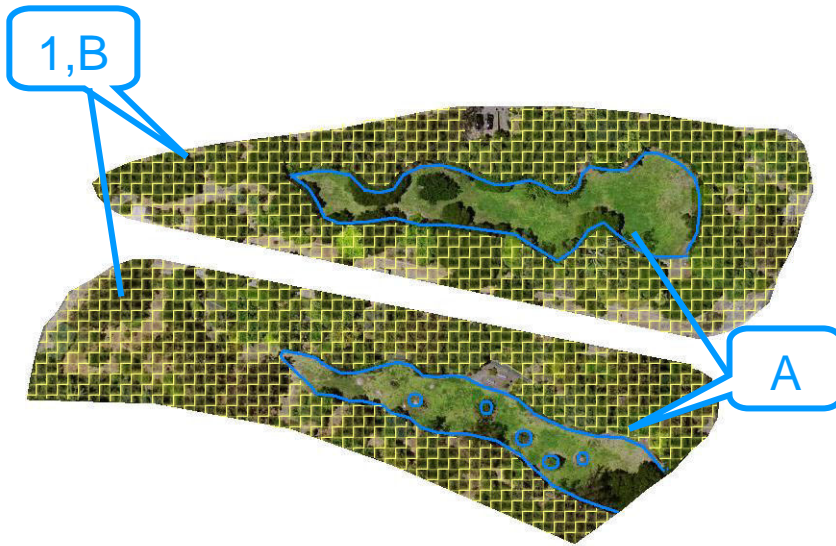
## Zone Descriptions

**This entire park has been zoned Green.**

## Landscape Modifications:

**A. Curbing along entire creek-side turf line**

# Orpet Park



Green Zone  
(all turf areas):

22%

Yellow Zone:

78%

Red Zone:

0%

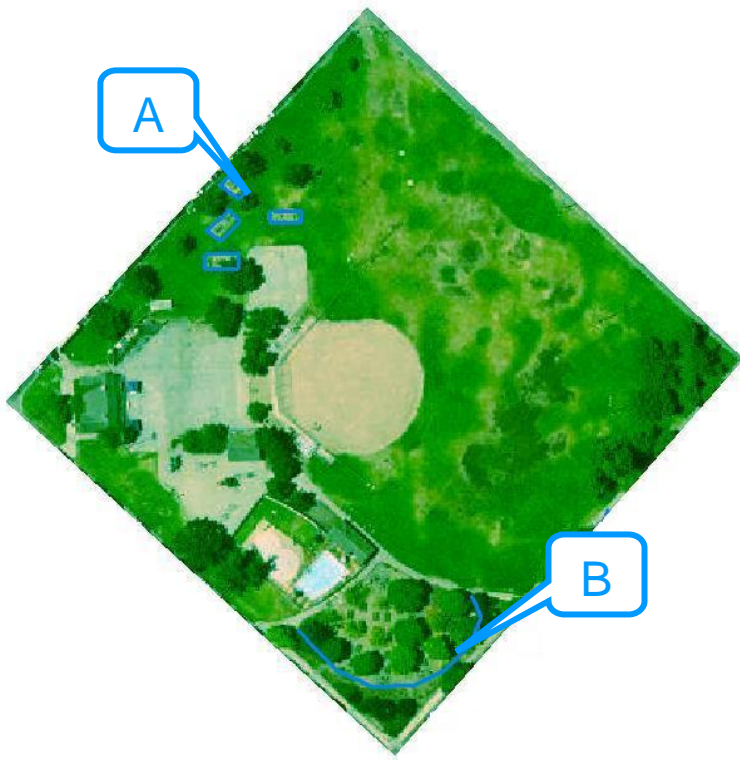
## Zone Descriptions:

1. Area zoned Yellow due to low exposure risk and high cost of habitat modification.

## Landscape Modifications:

- A. Curbing around all turf lines
- B. Planter renovation in all landscaped areas

# Ortega Park



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

- A. Curbing around all picnic pads
- B. Curbing along Bougainvillea planter in main picnic area.

# Parma Park



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# Parqué de los Niños



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

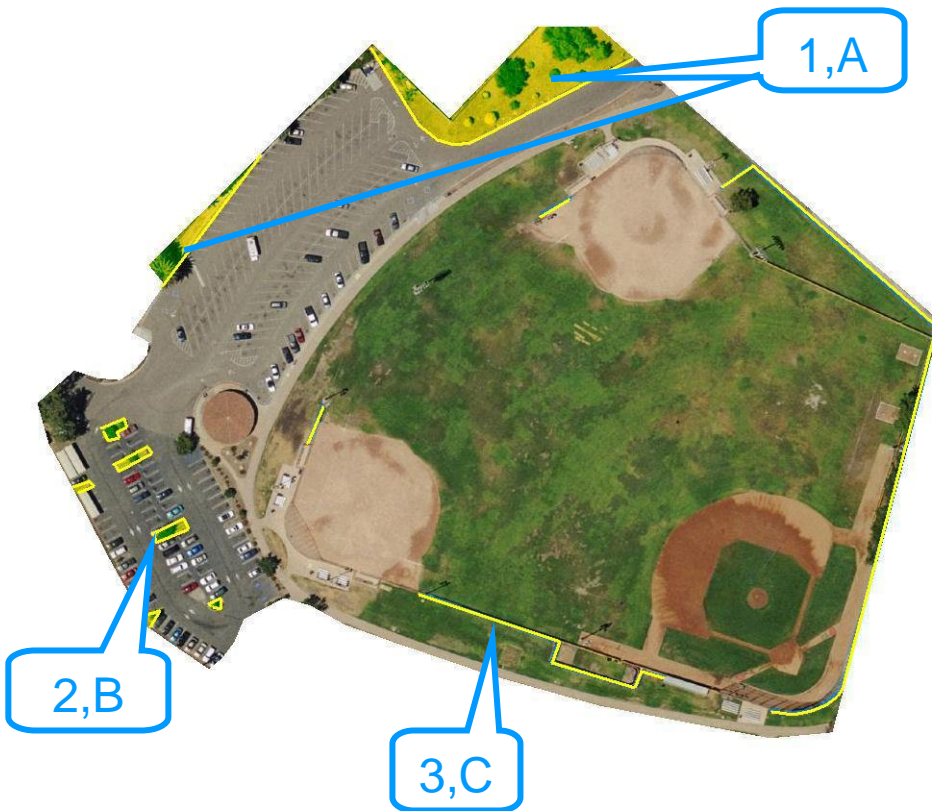
0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# Pershing Park



Green Zone:

96%

Yellow Zone:

4%

Red Zone:

0%

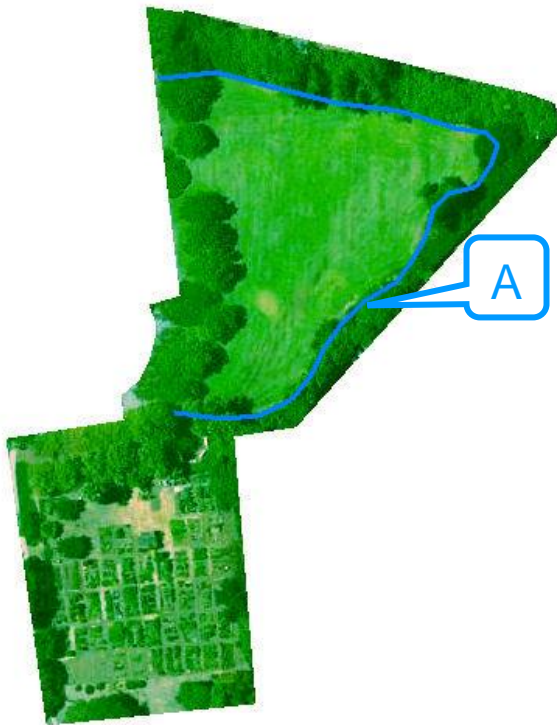
## Zone Descriptions:

1. Area zoned Yellow due to low exposure risk and high cost of habitat modification.
2. Area zoned Yellow due to low exposure risk and high cost of habitat modification.
3. Area zoned Yellow due to maintenance necessity and high cost of habitat modification.

## Landscape Modifications:

- A. Planter renovation in Northern and North-Eastern parking lot planters
- B. Planter renovation in Western parking lot planters
- C. Curbing under all fence lines

# Pilgrim Terrace



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

A. Curbing along turf and Oleander planter



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

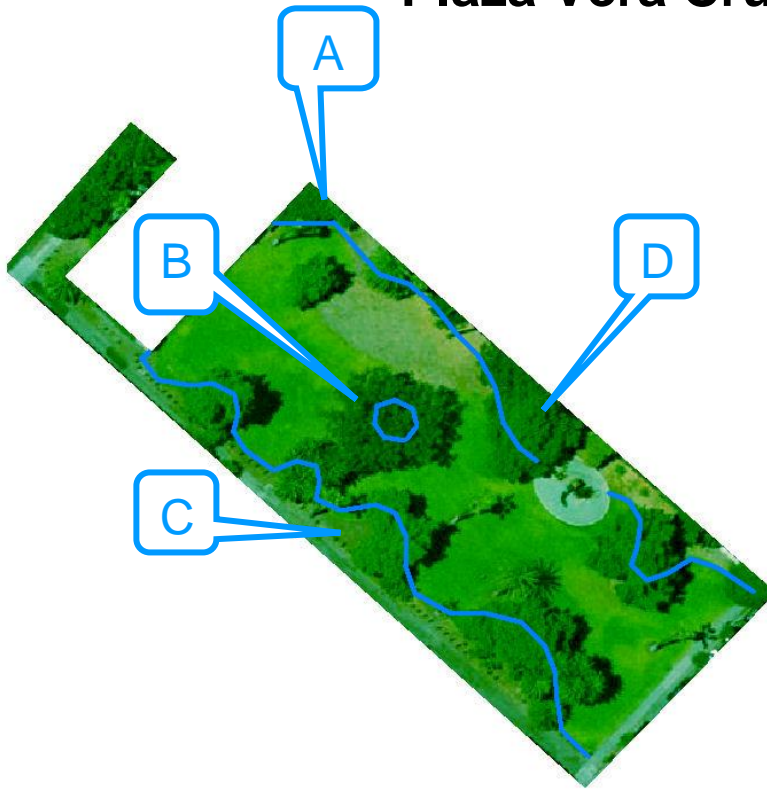
0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# Plaza Vera Cruz



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

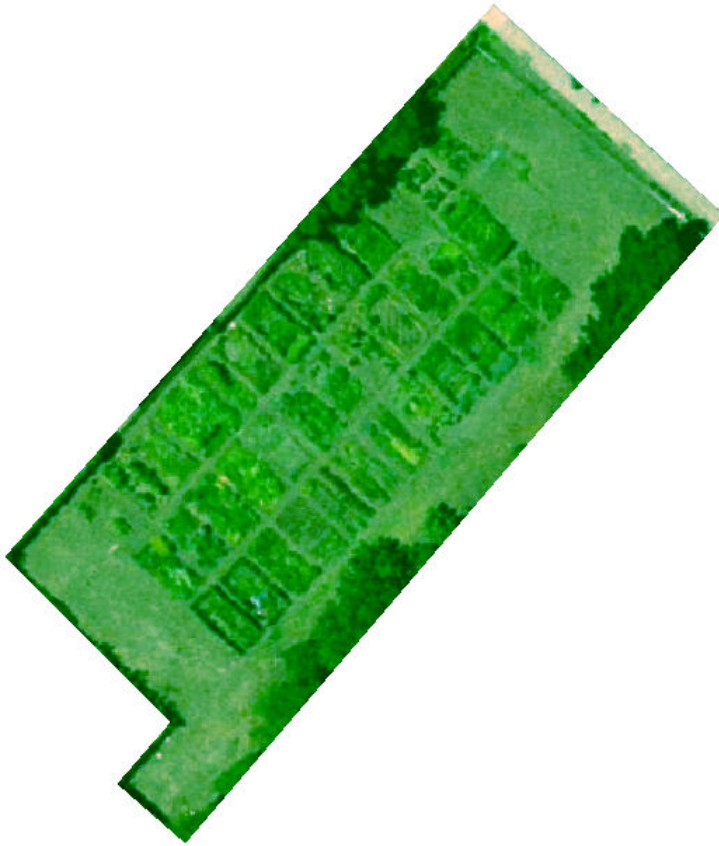
## Zone Descriptions

**This entire park has been zoned Green.**

## Landscape Modifications:

- A. Curbing around all planter-side turf edges**
- B. Curbing around central tree planter**
- C. Planter renovation in all West side planter areas**
- D. Planter renovation in all East side planter areas**

# Rancheria Community Gardens



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

--

# Rattlesnake Canyon



Green Zone:  
100%

Yellow Zone:  
0%

Red Zone:  
0%

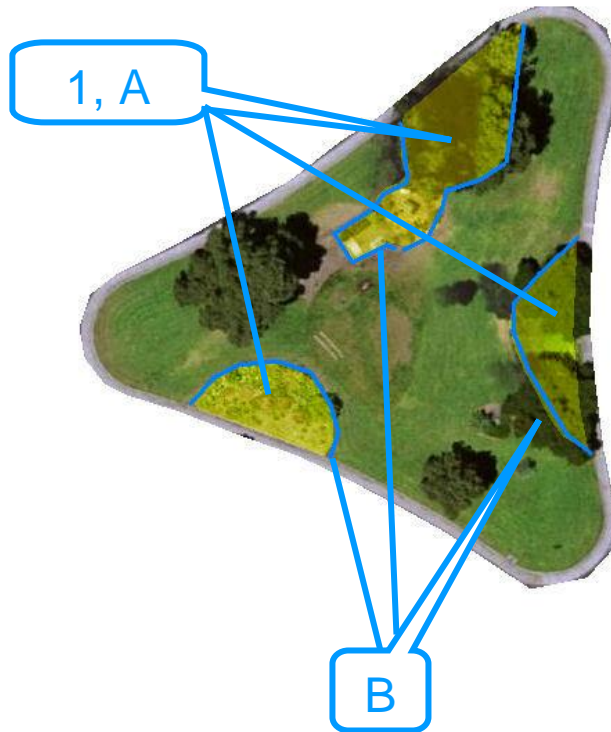
## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# San Roqué Park

Attachment 6



Green Zone:

84%

Yellow Zone:

16%

Red Zone:

0%

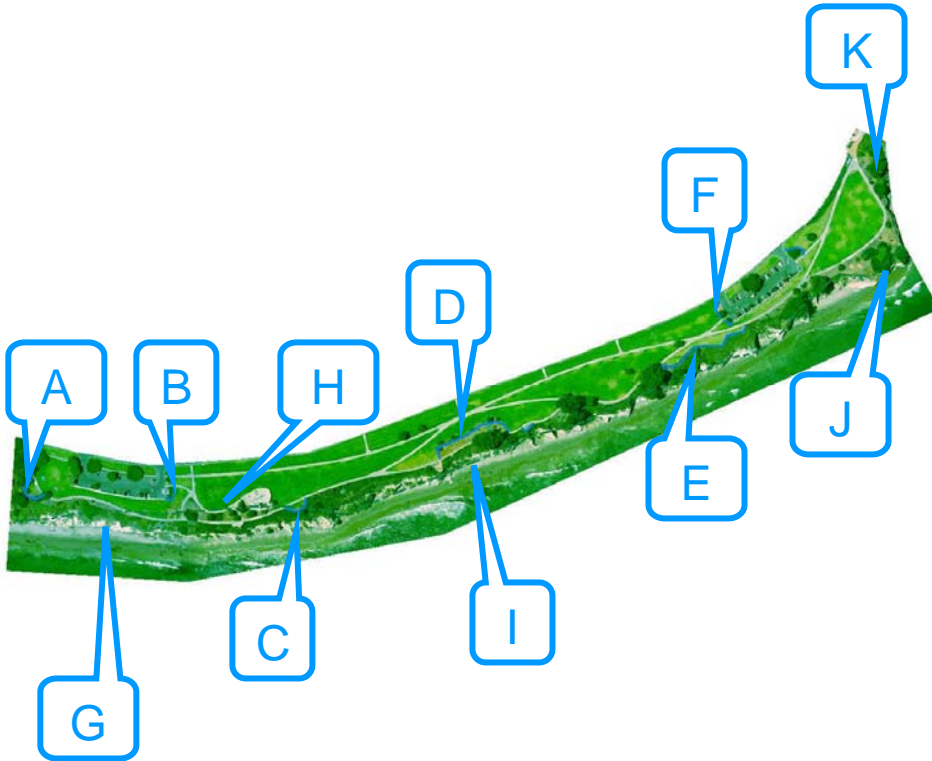
## Zone Descriptions:

1. Area zone Yellow due to low exposure risk and high cost of habitat modification and presence of poison oak

## Landscape Modifications:

- A. Planter renovation in all planters
- B. Curbing around all planters

# Shoreline Park



Green Zone:  
100%

Yellow Zone:  
0%

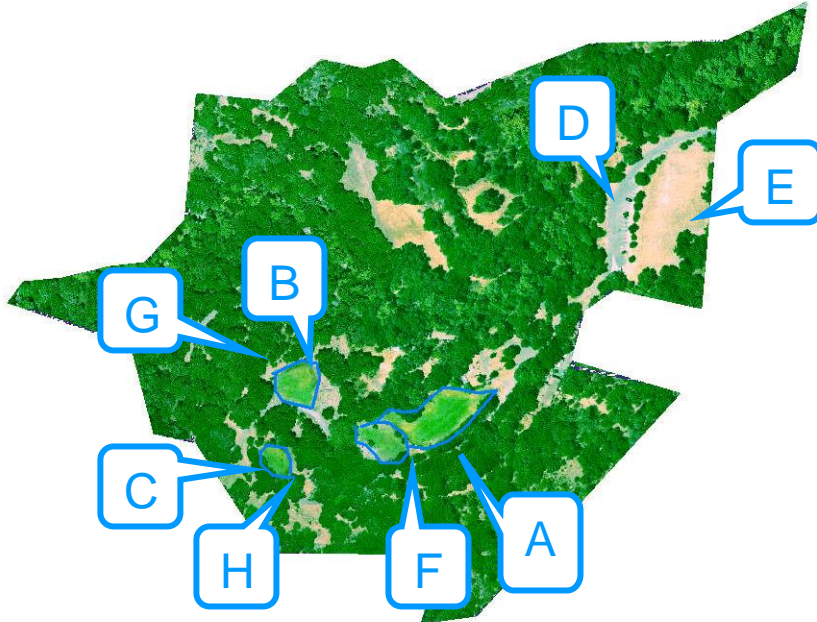
Red Zone:  
0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

- A. Curbing around small South-East turf corner
- B. Curbing around Eastern upper parking lot planter
- C. Curbing around small turf South-East of playground
- D. Curbing around reservable main picnic area
- E. Curbing along turf-Ice Plant edge South-West of lower parking lot
- F. Curbing around planters at both ends of lower parking lot
- G. Planter renovation in planter along fence in front of upper parking lot
- H. Planter renovation in planter area West of playground
- I. Planter renovation in main reservable picnic area
- J. Planter renovation in South-East corner overlook
- K. Planter renovation in Eastern-most planter area



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

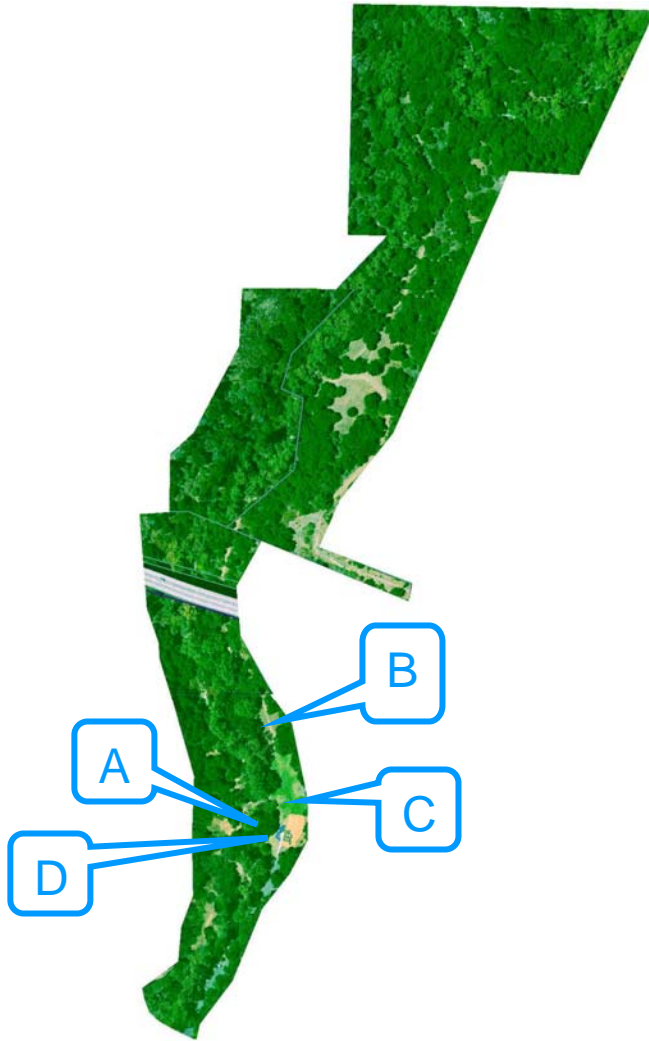
## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

- A. Curbing around Upper and Lower Area "A" turf
- B. Curbing around Area "B" turf
- C. Curbing around Area "C" turf
- D. Planter renovation along road-side of upper open area
- E. Planter renovation along road-side driveway planter area
- F. Planter renovation around Upper and Lower Area "A" turf
- G. Planter renovation around Area "B" turf
- H. Planter renovation around Area "C" turf

# Stevens Park



Green Zone:  
100%

Yellow Zone:  
0%

Red Zone:  
0%

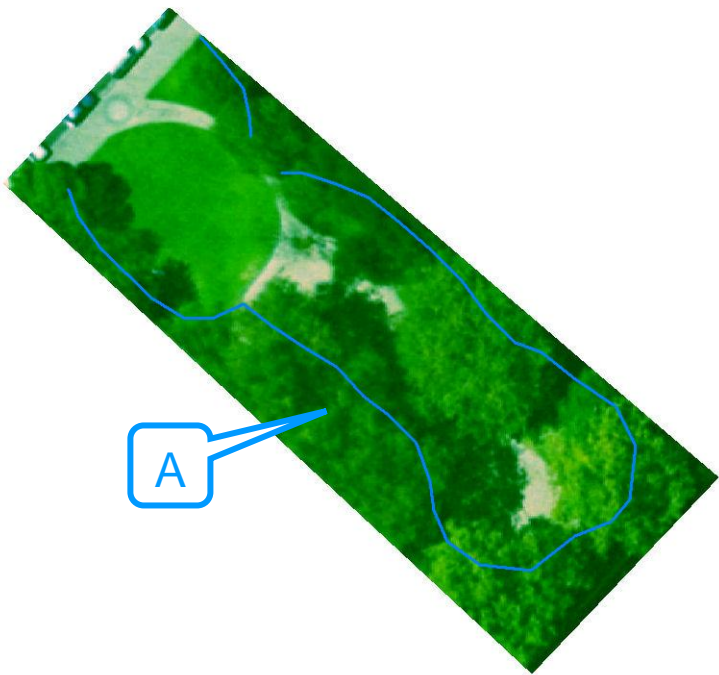
## Zone Descriptions

**This entire park has been zoned Green.**

## Landscape Modifications:

- A. Curbing around tree planters West of Playground**
- B. Planter renovation of trailhead area**
- C. Planter renovation of space between restroom and playground**
- D. Planter renovation of tree planters West of playground**

# Sunflower Park



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

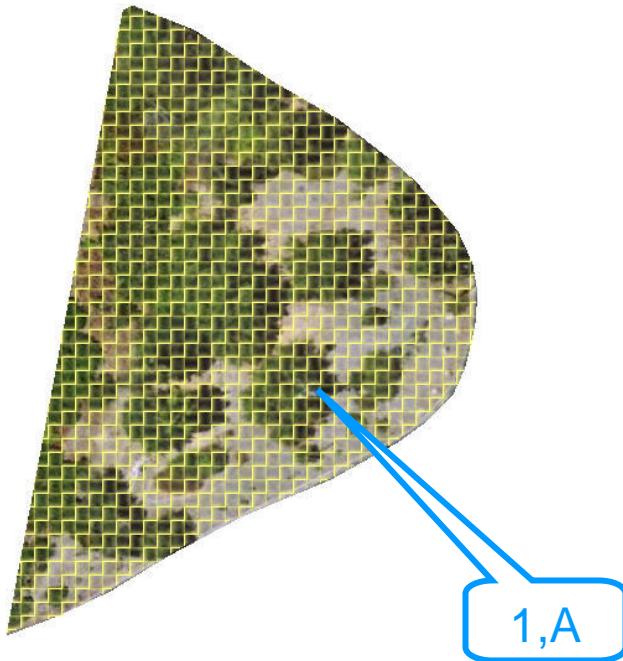
0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

A. Curbing around all planter-side turf edges



Green Zone:

0%

Yellow Zone:

100%

Red Zone:

0%

## Zone Descriptions:

1. Area zoned Yellow due to low exposure risk, high cost of habitat modification, presence of hazardous weeds (*Euphorbia*), and fuel management requirements

## Landscape Modifications:

- A. Development of “Green” herbicide or increased contract funding

# Thousand Steps



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# West Beach



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

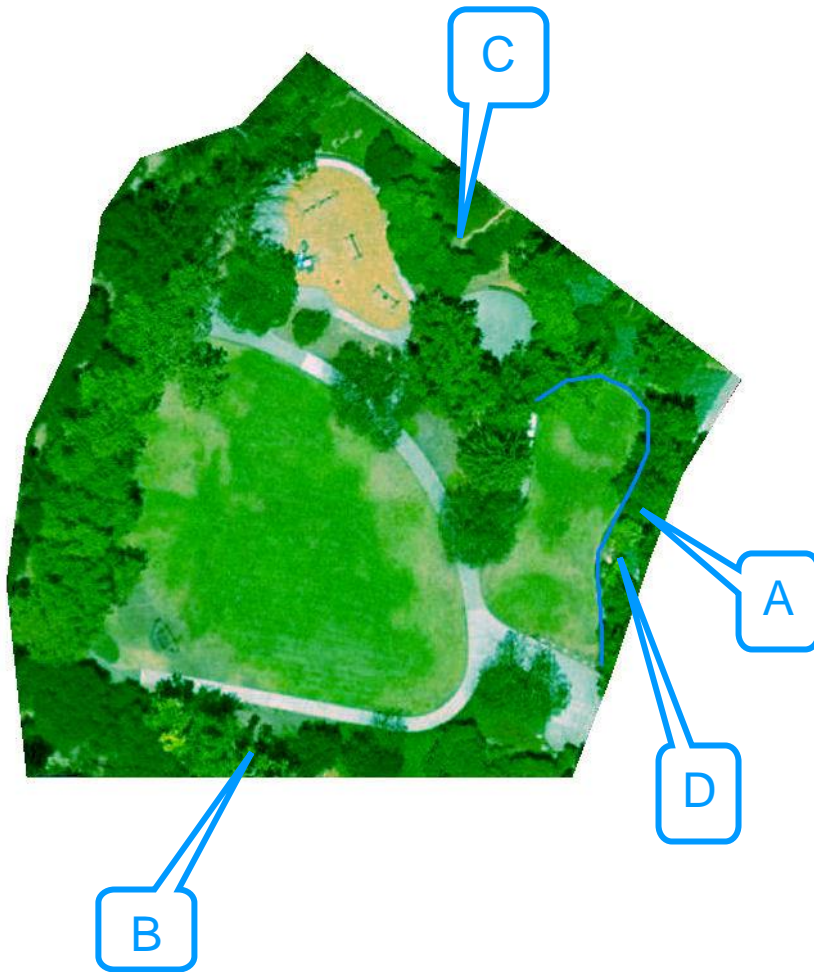
## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

A. Planter renovation in Promenade planters

# Willowglen Park



Green Zone:  
100%

Yellow Zone:  
0%

Red Zone:  
0%

## Zone Descriptions

**This entire park has been zoned Green.**

## Landscape Modifications:

- A. Curbing along North side of smaller turf area**
- B. Planter renovation in Southern planter area**
- C. Planter renovation in Northern planter area**
- D. Planter renovation in Eastern planter area**

**PHAER Zone Information for  
City Properties Maintained by Parks Division**

Attachment 7

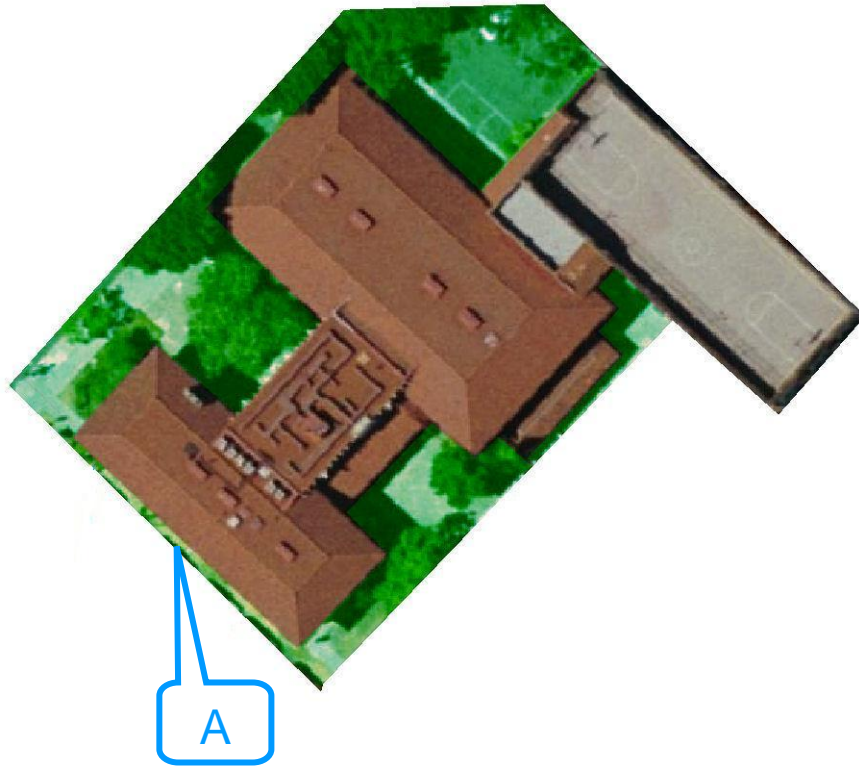
Category	Map #	Site	Total Acreage	Green Acreage	Yellow Acreage	Special Circumstance	Mow Strip Linear Feet	Mow Strip Cost (\$30 LFT)	Planter Area Modification	Planter Mod Cost (\$48 FT <sup>2</sup> )	Fence Replacement LFT	Fence Cost (\$60 LFT)	Park Total Cost
Community Buildings	1	CARRILLO RECREATION CENTER	0.5	0.5			0	\$0	0	\$0	0	\$0	\$0
	2	CABRILLO PAVILION BATH HOUSE	0.75	0.75			0	\$0	0	\$0	0	\$0	\$0
	3	FRANKLIN COMMUNITY CENTER	1	1			0	\$0	0	\$0	0	\$0	\$0
	4	LOS BANOS	0.75	0.75			120	\$3,600	0	\$0	0	\$0	\$3,600
	5	WESTSIDE COMMUNITY CENTER	1.7	1.7			0	\$0	0	\$0	0	\$0	\$0
		<b>Sub Totals</b>	<b>4.7</b>	<b>4.7</b>	<b>0</b>	<b>0</b>	<b>120</b>	<b>\$3,600</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>\$3,600</b>
Other City Facilities	6	CORPORATION YARD	2	2			0	\$0	0	\$0	0	\$0	\$0
	7	EASTSIDE LIBRARY	0.75	0.75			0	\$0	4000	\$1,920	0	\$0	\$1,920
	8	LIBRARY	0.6	0.6			0	\$0	0	\$0	0	\$0	\$0
	9	POLICE DEPARTMENT	0.25	0.25			0	\$0	0	\$0	0	\$0	\$0
		<b>Sub Totals</b>	<b>3.6</b>	<b>3.6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>4000</b>	<b>\$1,920</b>	<b>0</b>	<b>\$0</b>	<b>\$1,920</b>
Sports Facilities	*	GOLF COURSE	109	105	1.5	2.5	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	10	LAS POSITAS TENNIS COURTS	6	5.25	0.75		0	\$0	33250	\$15,960	0	\$0	\$15,960
	11	MACKENZIE LAWN BOWLS	1.8	0.95	0.85		0	\$0	8730	\$4,190	0	\$0	\$4,190
	12	MUNICIPAL TENNIS COURTS	7	5	2		0	\$0	90000	\$43,200	0	\$0	\$43,200
	13	SPENCER ADAMS LAWN BOWLS	3	2.42	0.58		250	\$7,500	7235	\$3,473	0	\$0	\$10,973
		<b>Sub Totals</b>	<b>126.8</b>	<b>118.62</b>	<b>5.68</b>	<b>2.5</b>	<b>250</b>	<b>\$7,500</b>	<b>139215</b>	<b>\$66,823</b>	<b>0</b>	<b>\$0</b>	<b>\$74,323</b>
Lots	14	CHASE PALM PARKING LOT	4	3.75	0.25		850	\$25,500	12300	\$5,904	0	\$0	\$31,404
	15	EAST BEACH PARKING LOTS	3.25	2.8	0.45		0	\$0	19450	\$9,336	0	\$0	\$9,336
	16	GARDEN STREET WATERFRONT LOT	5	4.8	0.2		0	\$0	8050	\$3,864	0	\$0	\$3,864
	17	HARBOR PARKING LOTS	13	12.25	0.75		TBD	TBD	TBD	TBD	TBD	TBD	TBD
	18	LEADBETTER LOT	2.3	2	0.3		0	\$0	13920	\$6,682	0	\$0	\$6,682
		<b>Sub Totals</b>	<b>27.55</b>	<b>25.6</b>	<b>1.95</b>	<b>0</b>	<b>850</b>	<b>\$25,500</b>	<b>53720</b>	<b>\$25,786</b>	<b>0</b>	<b>\$0</b>	<b>\$51,286</b>
Misc.	**	ISLANDS, UNDER/OVERPASSES AND MISC.	2.29		2.29		TBD	TBD	TBD	TBD	0	\$0	TBD
		<b>Totals</b>	<b>164.94</b>	<b>152.52</b>	<b>9.92</b>	<b>2.50</b>	<b>1,220.00</b>	<b>\$36,600</b>	<b>196,935.00</b>	<b>\$94,529</b>	<b>0</b>	<b>\$0</b>	<b>\$131,129</b>

\* See Attachment 8

\*\* No maps due to size

# Carrillo Recreation Center

Attachment 7



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

A. Planter renovation along Anacapa parking strip

# Cabrillo Pavilion Bath House

Attachment 7



Green Zone:

100%

Yellow Zone:

0%

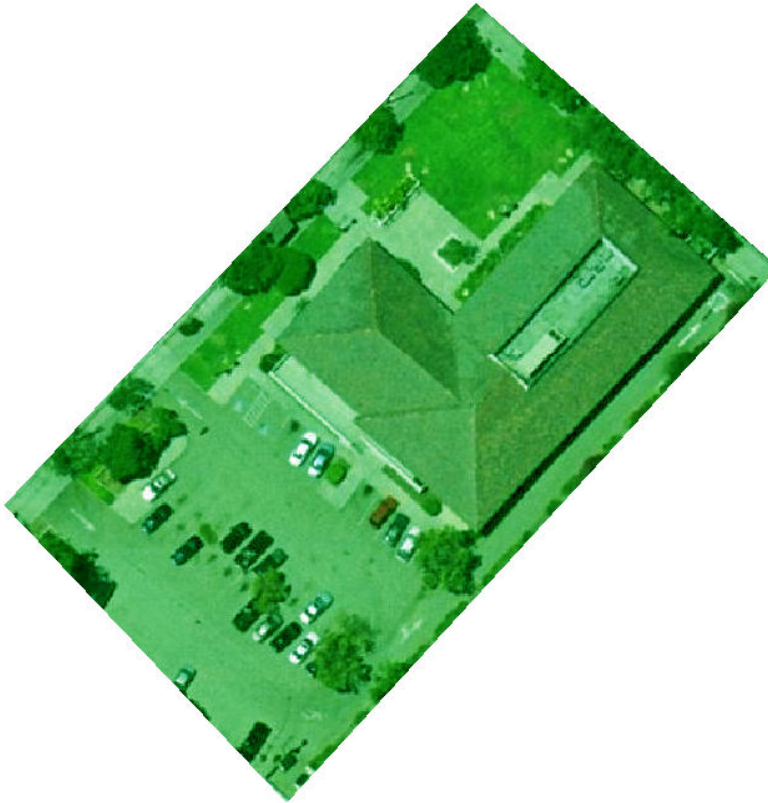
Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

A. Curbing along turf line on West-side planters



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

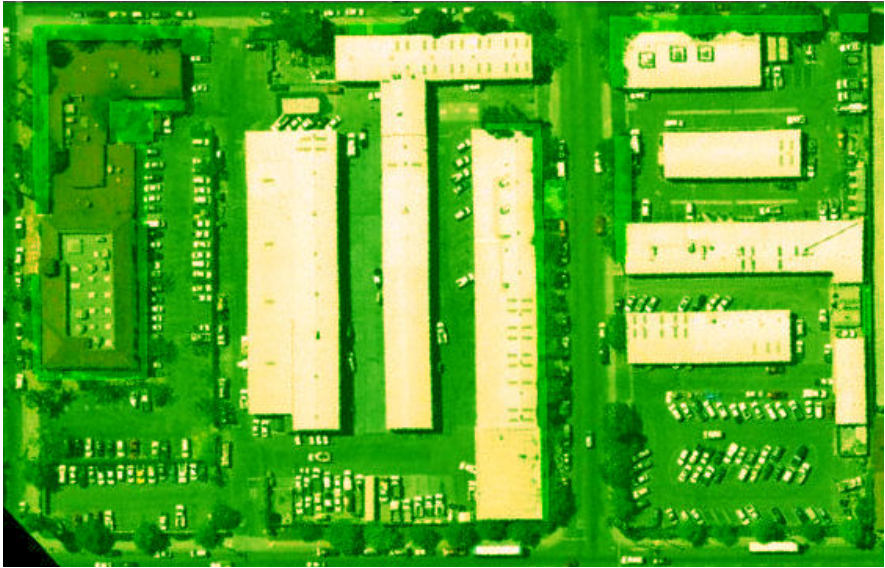
0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# Corporation Yard



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:



Green Zone:
100%
Yellow Zone:
0%
Red Zone:
0%

Zone Descriptions

This entire park has been zoned Green.

Landscape Modifications:



Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

Green Zone:

100%

Yellow Zone:

0%

Red Zone:

0%

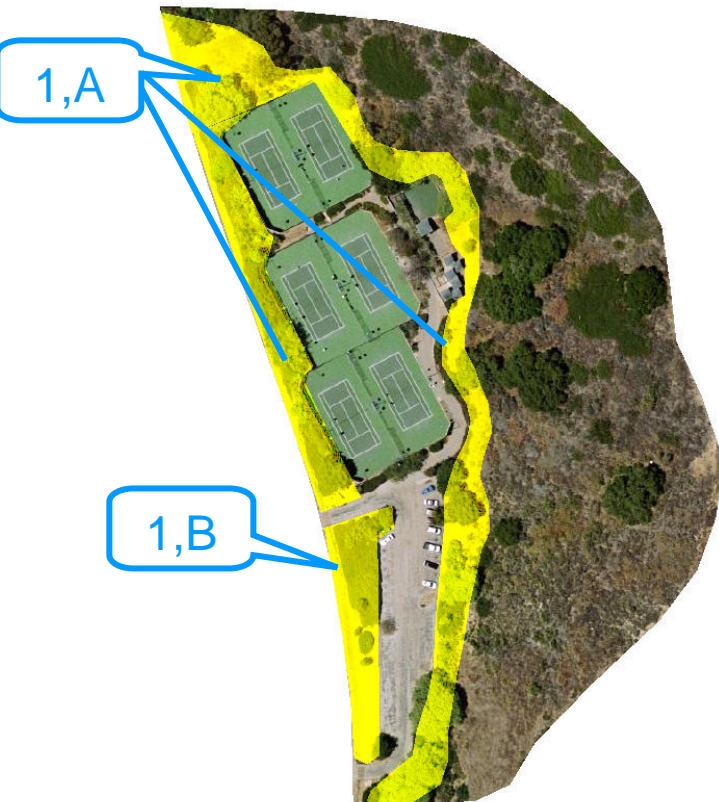
## Zone Descriptions

This entire park has been zoned Green.

## Landscape Modifications:

# Las Positas Tennis Courts

Attachment 7



Green Zone:

87%

Yellow Zone:

13%

Red Zone:

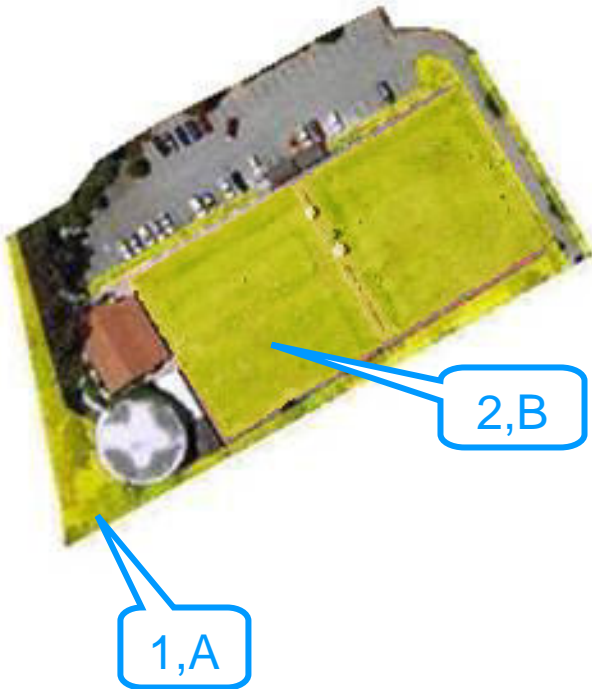
0%

## Zone Descriptions:

1. Area zoned Yellow due to low risk of exposure, high cost of habitat modification, and fuel management requirements

## Landscape Modifications:

- A. Development of a "Green" herbicide, and/or additional contract funding
- B. Planter renovation in Western parking lot planter



Green Zone:

52%

Yellow Zone:

48%

Red Zone:

0%

## Zone Descriptions:

1. Area zoned Yellow due to difficult slope access, low exposure risk and high cost of habitat modification.
2. Area zoned Yellow due to asset protection of lawn bowling Greens and high cost of artificial turf surface

## Landscape Modifications:

- A. Planter renovation in South-Western and border planters
- B. Replacement with artificial turf or development of “Green” materials

# Municipal Tennis Courts



Green Zone:

70%

Yellow Zone:

30%

Red Zone:

0%

## Zone Descriptions:

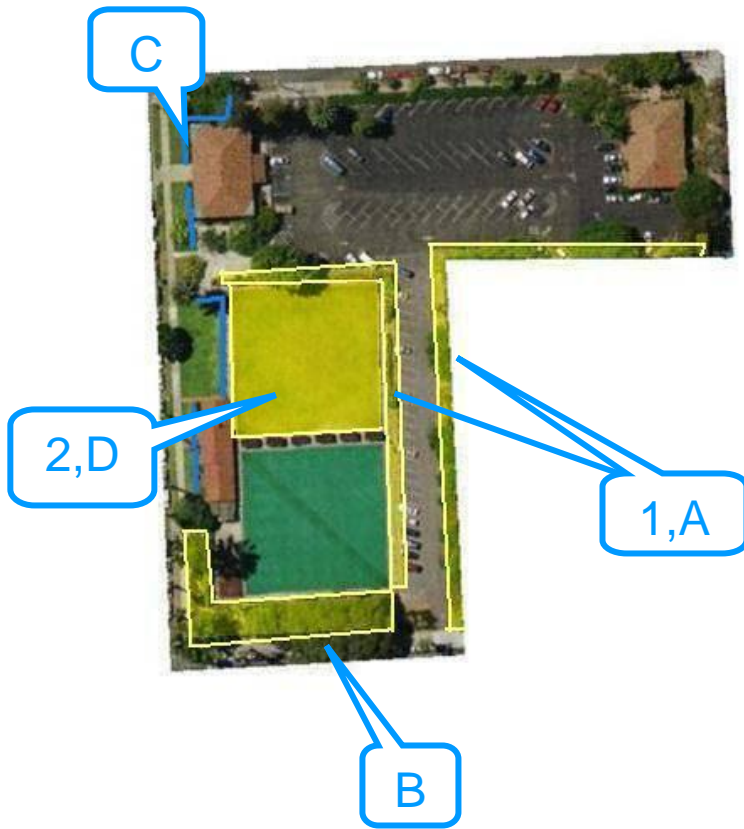
1. Area zoned Yellow due to low exposure risk and high cost of habitat modification.

## Landscape Modifications:

- A. Planter renovation in all landscape areas

# Spencer Adams Lawn Bowls

Attachment 7



Green Zone:

81%

Yellow Zone:

19%

Red Zone:

0%

## Zone Descriptions:

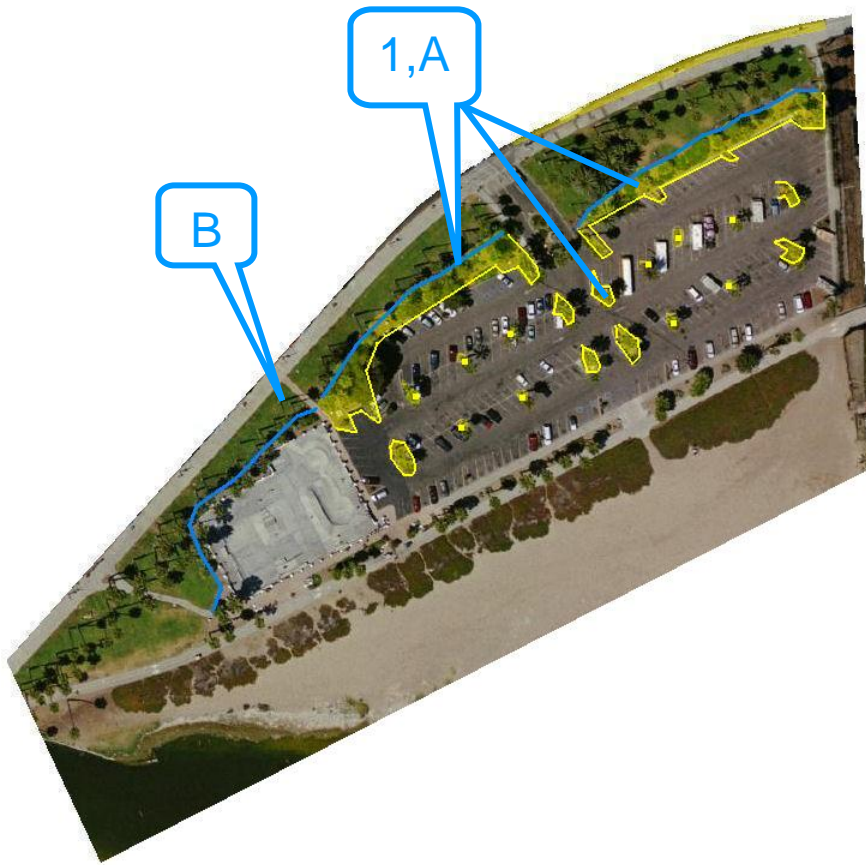
1. Area zoned Yellow due to low exposure risk and high cost of habitat modification.
2. Area zoned Yellow due to asset protection of lawn bowling Greens and high cost of artificial turf surface.

## Landscape Modifications:

- A. Planter renovation in all parking lot planters
- B. Planter renovation in Anapamu planter
- C. Curbing along all turf edges
- D. Replacement with artificial turf

# Chase Palm Parking Lot

Attachment 7



Green Zone:

96%

Yellow Zone:

4%

Red Zone:

0%

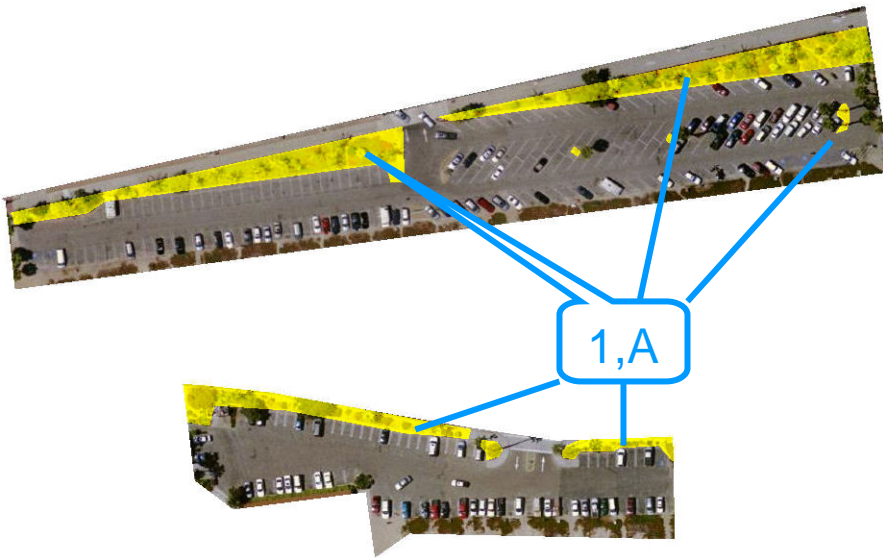
## Zone Descriptions:

1. Area zoned Yellow due to low risk of exposure, difficulty of manual weeding, and high cost of habitat modification.

## Landscape Modifications:

- A. Planter renovation in Northern planter beds and all parking lot planters
- B. Curbing along Northern turf line

# East Beach Parking Lots



Green Zone:

86%

Yellow Zone:

14%

Red Zone:

0%

## Zone Descriptions:

1. Area zoned Yellow due to low risk of exposure, difficulty of manual weeding, and high cost of habitat modification.

## Landscape Modifications:

- A. Planter renovation in all parking lot planters

# Garden Street Waterfront Lot

Attachment 7



1,A

Green Zone:

90%

Yellow Zone:

10%

Red Zone:

0%

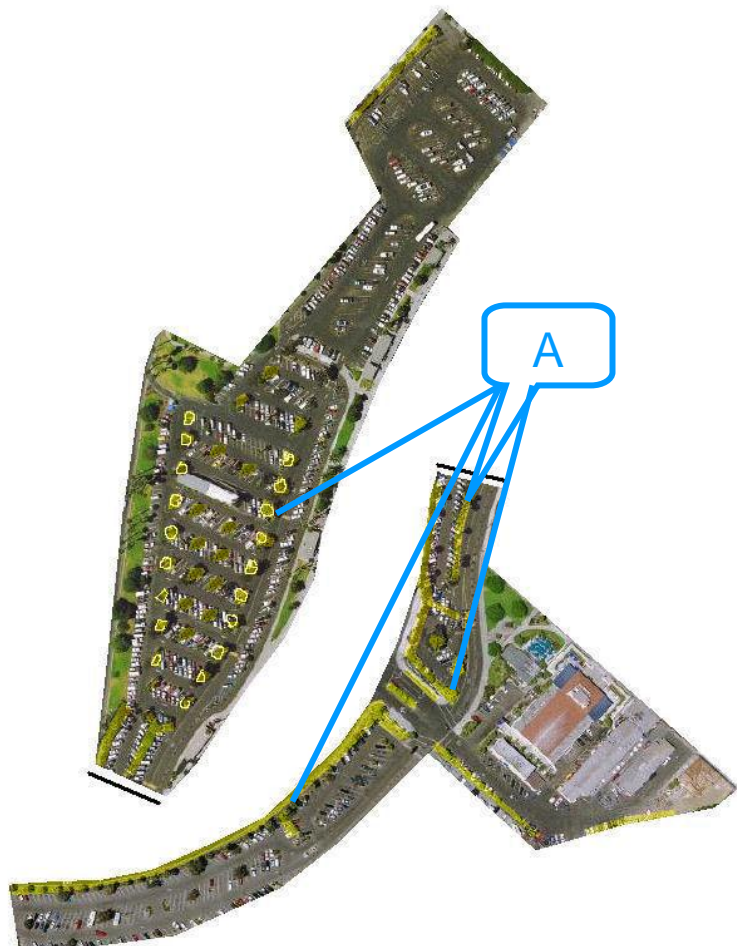
## Zone Descriptions:

1. Area zoned Yellow due to low risk of exposure, difficulty of manual weeding, and high cost of habitat modification.

## Landscape Modifications:

- A. Planter renovation in all planters

# Harbor Parking Lots



Green Zone:

94%

Yellow Zone:

6%

Red Zone:

0%

## Zone Descriptions:

1. Areas zoned Yellow due to low risk of exposure and high cost of habitat modification.

## Landscape Modifications:

- A. TBD



Green Zone:

85%

Yellow Zone:

15%

Red Zone:

0%

## Zone Descriptions:

1. Area zoned Yellow due to low risk of exposure and high cost of habitat modification.
2. Area zoned Yellow due to presence of hazardous weeds and low risk of exposure.

## Landscape Modifications:

- A. Planter renovation to prevent weeds from growing in open soil.
- B. Planter renovation to prevent weeds from growing in open soil.

SANTA MARIA LN

MCCAW AVE

ATTACHMENT 8

SABRIEL LN

SAN JOSE LN

LAS POSITAS RD

ADAMS  
SCHOOL

LAS POSITAS RD

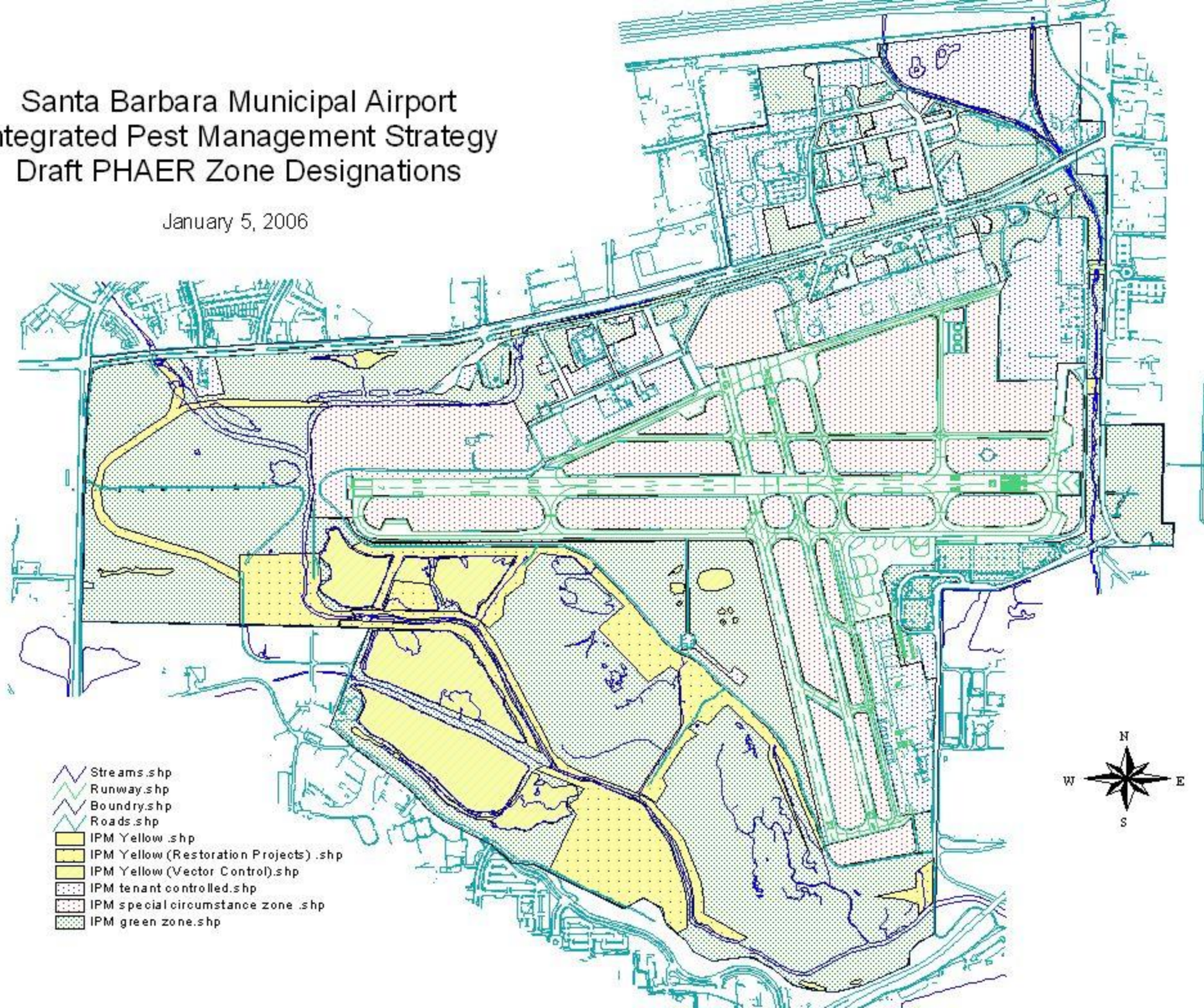
EARL WARREN  
SHOW GROUNDS

101



# Santa Barbara Municipal Airport Integrated Pest Management Strategy Draft PHAER Zone Designations

January 5, 2006



CITY OF SANTA BARBARA PARKS DIVISION MOW STRIP INSTALLATION: ANNUAL MAINTENANCE SAVINGS (LABOR ONLY)					
LOCATION:	L.F.	WITH EDGE/WEEDWHIP 48 TIMES/YEAR (20-FT./MINUTE) MANHOURS (INCL. CLEAN-UP)	WITHOUT MOW STRIP EDGE/WEEDWHIP 48 TIMES/YEAR (10-FT./MINUTE) MANHOURS (INC. CLEAN-UP)	HOURS SAVED	% F.T.E.'S
<b>MODE 1:</b>					
ALICE KECK PARK	2500	2.08 HRS x 48 = 99.84 HRS.	4.16 HRS x 48 = 199.68 HRS.		
CHASE PALM PARK	340	.28 HRS x 48 = 13.44 HRS.	.56 HRS x 48 = 26.88 HRS.		
CITY HALL/DE LA GUERRA	2250	1.88 HRS x 48 = 90.24 HRS.	3.76 HRS x 48 = 180.48 HRS.		
MISSION ROSE GARDEN & HISTORICAL PARK	1200	1 HR x 48 = 48 HRS.	2 HRS x 48 = 96 HRS.		
TOTAL HOURS MODE 1:		251.52 HRS.	503.04 HRS.	251.52 HRS.	12%
<b>MODE 2:</b>					
ALAMEDA PARK	860	.72 HRS x 48 = 34.56 HRS.	1.44 HRS x 48 = 69.12 HRS.		
BOHNETT PARK	750	.63 HRS x 48 = 30.24 HRS.	1.26 HRS x 48 = 60.48 HRS.		
EASTSIDE PARK	350	.29 HRS x 48 = 13.92 HRS.	.58 HRS x 48 = 27.84 HRS.		
LA MESA PARK	1440	1.2 HRS x 48 = 57.60 HRS.	2.4 HRS x 48 = 115.20 HRS.		
OAK PARK	1400	1.17 HRS x 48 = 56.16 HRS.	2.34 HRS x 48 = 112.32 HRS.		
SHORELINE PARK	950	.79 HRS x 48 = 37.92 HRS.	1.58 HRS x 48 = 75.84 HRS.		
MACKENZIE PARK	1000	.83 HRS x 48 = 39.84 HRS.	1.66 HRS x 48 = 79.68 HRS.		
TOTAL HOURS MODE 2:		270.24 HRS.	540.48 HRS.	270.24 HRS.	13%
<b>MODE 3:</b>					
ANDREE CLARK BIRD REFUGE	2500	2.08 HRS x 48 = 99.84 HRS.	4.16 HRS x 48 = 199.68 HRS.		
EAST BEACH PARK	1200	1 HR x 48 = 48 HRS.	2 HRS x 48 = 96 HRS.		
ESCONDIDO PARK	680	1.13 HRS. X 48 = 54.24 HRS.	2.26 X 48 HRS. = 108.48 HRS.		
HIDDEN VALLEY PARK	150	.13 HRS x 48 = 6.24 HRS.	.26 HRS x 48 = 12.48 HRS.		
MORETON BAY FIG TREE	500	.42 HRS x 48 = 20.16 HRS.	.84 HRS x 48 = 40.32 HRS.		
PLAZA VERA CRUZ	900	.75 HRS x 48 = 36 HRS.	1.5 HRS x 48 = 72 HRS.		
SKOFIELD PARK	1600	1.33 HRS x 48 = 63.84 HRS.	2.66 HRS x 48 = 127.68 HRS.		
STEVENS PARK	40	.03 HRS x 48 = 1.44 HRS.	.06 HRS x 48 = 2.88 HRS.		
SUNFLOWER PARK	400	.33 HRS x 48 = 15.84 HRS.	.66 HRS x 48 = 31.68 HRS.		
WILLOWGLEN PARK	250	.21 HRS x 48 = 10.08 HRS.	.42 HRS x 48 = 20.16 HRS.		
ORPET PARK	2065	3.44 HRS. X 48 = 165.12 HRS.	6.88 HRS. X 48 = 330.24 HRS.		
SAN ROQUE PARK	620	.52 HRS x 48 = 24.96 HRS.	1.04 HRS x 48 = 49.92 HRS.		
TOTAL HOURS MODE 3:		545.76 HRS.	1091.52 HRS.	545.76 HRS.	26%
<b>MODE 4:</b>					
LOS ROBLES PARK	325	.27 HRS x 48 = 12.96 HRS.	.54 HRS x 48 = 25.92 HRS.		
PILGRIM TERRACE	550	.46 HRS x 48 = 22.08 HRS.	.92 HRS x 48 = 44.16 HRS.		
TOTAL HOURS MODE 4:		35.04 HRS.	70.08 HRS.	35.04 HRS.	2%
<b>BALLFIELDS:</b>					
ORTEGA PARK	570	.48 HRS x 48 = 23.04 HRS.	.96 HRS x 48 = 46.08 HRS.		
CABRILLO BALL PARK	420	.35 HRS x 48 = 16.80 HRS.	.70 HRS x 48 = 33.60 HRS.		
DWIGHT MURPHY PARK	2250	1.88 HRS x 48 = 90.24 HRS.	3.76 HRS x 48 = 180.48 HRS.		
PERSHING PARK	1100	.92 HRS x 48 = 44.16 HRS.	1.84 HRS x 48 = 88.32 HRS.		
TOTAL HOURS BALLFIELDS:		174.24 HRS.	348.48 HRS.	174.24 HRS.	8%
<b>TOTAL HOURS SAVED:</b>				1,276.8 HRS.	61%

\*\* Based on average of 48 weeks per year.