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This document contains only the Executive Summary & Report Discussion. The full report is available from  
the City of El Cerrito.

## **City of El Cerrito**

## **Landscape Management Report**

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## **EXECUTIVE SUMMARY**

The El Cerrito Landscape Management Report was authorized by the City of El Cerrito to meet the requirements of Governmental Accounting Standards Board Statement 34, which establishes new financial reporting standards for state and local governments throughout the United States. This landscape report serves to meet these reporting requirements and as a guide for establishing landscape maintenance goals and financial requirements for the landscaped facilities within the City of El Cerrito. This report includes an inventory of trees, landscape plants, and turf grass areas; a condition assessment; and a maintenance cost estimate for management and renovation of landscape areas.

The team of Vallier Design Associates, a landscape architecture firm, and MacNair and Associates, an arborist and horticultural firm, prepared the report with information obtained from field inventories, and interviews with City of El Cerrito Public Works staff, the El Cerrito Parks and Recreation Commission, and the general public. The evaluation also utilizes data the City of El Cerrito previously documented, including area base maps and aerial photos.

The field inventories were conducted on 48 City of El Cerrito public properties. Results of the landscape inventory revealed significant management issues and deficiencies. These issues include both biotic and abiotic problems including:

- I.) Significant pest and disease problems affecting common pine species including pine pitch canker disease and bark beetle infestations. California white alders are also in decline from damage by flat head borer infestations.
- 2.) The potential for severe loss of coast live oak from infection by the Sudden Oak Death pathogen (*Phytophthora ramorum*).
- 3.) Decline of mature southern magnolias in roadway medians due to probable root disease.
- 4.) Extensive weed infestations including blackberry, Algerian ivy, various volunteer tree species, and noxious weed species such as broom, eucalyptus, and pampas grass.
- 5.) Lack of regular tree pruning including training of new trees and maintenance/hazard abatement pruning of mature trees.
- 6.) Degradation of irrigation systems resulting in plant problems associated with chronic drought stress.
- 7.) Damage to new trees from mowing and turf trimming equipment.
- 8.) Sidewalk and hardscape damage from tree foot systems with *Liquidambar* being the primary problem.

The team participated in three meetings with the El Cerrito Parks and Recreation Commission to discuss the inventory of public spaces and solicit input about landscape and tree maintenance. To supplement this information, a public survey was developed and distributed to obtain input from park users regarding current and desired levels of landscape and tree maintenance in the parks.

This report includes area maps for each individual site, an Integrated Pest Management (IPM) plan that addresses vegetation management goals and recommendations, a maintenance assessment for renovation and replacement costs, and a summary of results from the public survey.

## **REPORT DISCUSSION**

### **Inventory Methodology**

A two-person team surveyed 48 El Cerrito public sites, which included parks, play fields, lawn areas, native plant demonstration plantings, pedestrian and bike pathways and roadway medians. Each property was surveyed for the number and condition of trees, landscape characteristics including shrubs and groundcovers occurring, and current maintenance levels and deficiencies. All trees were described using trunk diameter classifications, health and structure ratings, and any potential hazardous conditions observed. Shrub and turf areas were also inventoried and generally described.

Data spreadsheets were prepared for each site, documenting the collected data as well as providing recommendations for pruning cycles, possible and probable tree removals, and additional observations. Photographs are provided on a CD that accompanies this report to provide a visual record of site conditions.

A site map was created for each inventoried area, using aerial photos and parcel maps provided by the City of El Cerrito. The maps enabled the team to calculate square footage for each site, as well as document the total trees per site; the size of turf, landscape, hardscape, and natural areas; and any additional facilities (such as tennis courts).

Using the areas calculated on the site maps, renovation, replacement, and maintenance costs were assigned for each public space and specific area (vegetated vs. non-vegetated) within the site. The unit costs are based on discussions with City of El Cerrito representatives and local landscaping consultants. These estimates take into account the varying costs associated with maintaining hardscape, landscape, and natural areas. They also consider tree maturity levels and their probability for replacement.

### **Landscape Management Issues**

Results of the landscape inventory revealed significant management issues. These issues include various biotic and abiotic (nonliving, noninfectious) problems. While some of these problems can be controlled through landscape management procedures, certain problems do not have practical solutions and may require eventual tree removals.

#### *Pest and Disease Problems*

Serious pest problems occurring in the El Cerrito area include bark beetle infestations involving red turpentine beetle (*Dendroctonus valens*), engraver beetles (*Ips spp.*), and flatheaded alder borer (*Agrilus burkei*). Prominent disease problems include pine pitch canker (*Fusariumsubglutinans*) affecting primarily Monterey pine and the potential for the spread of Sudden Oak Death (*Phytophthora ramorum*), which has caused substantial loss of coast live oak in coastal counties and has been confirmed to infect many native tree and shrub species.

The future impact of these pest problems is likely to be significant. A majority of the Monterey pines appear to have some level of pine pitch canker infection. Minimally, infected trees are unsightly with advanced infections leading to limb loss and death of trees. Because of the large number of Monterey pines in El Cerrito, pruning and removal costs may be a substantial future maintenance cost. Hopefully, most of the pines will have a level of resistance that allows retention of the trees.

Infestations by bark beetles are another serious threat to Monterey pines. Pine bark beetles have caused the loss of thousands of Monterey pines in California and remain a risk that is difficult to control. The

widespread loss of California white alder (*Ainus rhombifolia*) is occurring due to flathead alder borer infestations. This native tree species was once widely used as a landscape tree, but is now not recommended due to the susceptibility of this species to this insect pest,

The future role of Sudden Oak Death in the East Bay is unclear. Although, the disease has been identified in various locations, the widespread infection of coast live oak (*Quercus agrifolia*) and black oak (*Q. kelloggii*) has not occurred anywhere near the losses observed in Marin County. Future management impacts include possible tree removals and management practices addressing quarantine requirements.

Extensive weed infestations are a common problem in park and landscape sites. Weed species include common turf grass weeds, blackberry, Algerian ivy, various volunteer tree species, and noxious weed species such as broom, eucalyptus, and pampas grass. Removal of these weeds is labor intensive and often requires herbicide applications for effective control. Increasing the effort to provide weed control would require a substantial increase in the landscape maintenance budget.

In addition to weeds, pocket gophers are a common problem in turfgrass areas. In addition to making turfgrass areas unsightly, the holes and mounds in playfields can be dangerous, causing injury to sports players.

Please refer to the Pest Management Plan for guidance on specific pest control and management.

#### *Abiotic Issues*

Important abiotic problems include the decline of southern magnolia (*Magnolia grandiflora*) occurring in certain median plantings. The specific cause of this decline has not been identified, although root disease is the likely cause due to poor soil drainage.

The incidence of tree structural defects is relatively high due to the lack of regular tree pruning and training of young trees. Periodic pruning is a critical tree maintenance requirement and necessary to abate hazardous tree conditions.

The early training and pruning of young trees is a very cost-effective method for preventing future tree defects. Ten to twenty minutes of quality pruning at a young stage of development can avoid hundreds to thousands of future pruning costs and significantly extend the useful life of the tree.

Chronic drought stress in trees and shrub plantings was another common observation. Landscape irrigation systems in many locations are non-functional or ineffective. Periodic renovation of irrigation systems is a necessary landscape maintenance requirement and one of the most important components for maintaining plant health and appearance.

Damage to young trees was a common problem in numerous turfgrass areas. The problem is the result of lower trunk damage caused by mowing and string trimmer equipment. This damage girdles the tree and causes permanent damage manifested by stunted growth and decay problems. Trees with greater than 1/3 of the trunk circumference girdled are recommended for removal and replacement.

Young trees should be protected from this type of damage with trunk guards and by removing turf grass or weeds within three to four of the tree trunk. This cleared area should be mulched and maintained weed free. In addition to preventing trunk damage, the removal of turfgrass and weeds will substantially increase tree growth rates.

Sidewalk and hardscape damage from tree roots was an occasional problem within the parks. Presumably this is a more common problem in street tree plantings. The primary tree species associated with root damage is Liquidambar (*Liquidambar styraciflua*) and fruitless mulberry (*Morus alba*). Avoiding this type of damage requires proper tree selection, maintaining appropriate clearances, and the use of root barriers.

## **Public Survey**

The El Cerrito Landscape Management Report public survey was developed to obtain input from park users about landscape and tree maintenance in public spaces. The team worked with City staff, the El Cerrito Parks and Recreation Commission, and members of the general public to develop a survey that elicits clear, complete responses to assist the City in understanding the perceptions and desires of city residents. Because the survey was conducted after the data gathering stage, the team had a comprehensive understanding about what information should be gathered from the public. The survey solicited information about user groups; satisfaction levels with existing facilities and landscape maintenance; perceptions on landscaping; and priorities for improvement. The surveys were mailed to more than 10,000 residents and business owners of the city of El Cerrito. We received a response of 1,137 surveys, an 11.37% response rate.

Data collected from the surveys was tabulated overall and on a park specific basis. The responses are ranked by question and by priority. The appendix includes all specific responses to the surveys, as they were diverse in scope and provided unique insight into steps the City could take to provide user-friendly, welcoming public spaces.

According to a majority of respondents, Cerrito Vista Park is in closest proximity to most residents and businesses and is the most frequently used park. Residents primarily use Cerrito Vista and the other City managed public sites for exercise (walking/jogging), to enjoy the shade provided by trees, to use recreational equipment, and to view birds or other wildlife. Most respondents use the parks on a weekly basis, although responses ranged from daily to rare use. Half of the respondents believe that El Cerrito parks are adequately maintained. Residents suggested a variety of means that would improve their perception and appreciation of the parks including weeding, tree maintenance, native plant enhancement, creek and pond clean-up, and safety and security improvements. An overwhelming amount of respondents (76-80%) stated that they strongly agree that trees and vegetation contribute positively to El Cerrito parks in terms of beautification, habitat, and environmental quality.

The top priorities for improvement identified by residents are maintenance of trees; creation, preservation, and maintenance of waterways (creeks, ponds, streams); and an increase and improvement of fields, courts, and lawns. Other top concerns include general level maintenance, shrub and native plant enhancement, and trail maintenance. Overall, the surveys suggest that maintenance improvements, on a priority basis, would be welcomed and supported by the general public. In addition, such improvements would make El Cerrito's open space more enjoyable for its diverse patrons.

In addition to the Public Survey Report, we have compiled a database of all surveys, including the details of each individual survey, for the city to maintain and refer to in the future.

The Final Report will include a summary of comments and recommendations from the El Cerrito Parks and Recreation Commission and the El Cerrito City Council.