ENVIRONMENTAL QUALITY COMMISSION AGENDA

Regular Meeting
Wednesday, April 22, 2015 at 6:30 PM
Arrillaga Family Recreation Center – Oak Room
700 Alma Street, Menlo Park, CA 94025
PLEASE NOTE CHANGE IN MEETING LOCATION

CALL TO ORDER

ROLL CALL – Allan Bedwell (Vice Chair), Chris DeCardy, Kristin Kuntz-Duriseti, Scott Marshall (Chair), Deborah Martin, Mitchel Slomiak, Christina Smolke

A. PUBLIC COMMENT (Limited to 30 minutes)

Under "Public Comment," the public may address the advisory body on any subject not listed on the agenda within the jurisdiction of the Commission. Each speaker may address the Commission once under Public Comment for a limit of three minutes. Please clearly state your name and address or political jurisdiction in which you live. The Commission cannot act on items not listed on the agenda and, therefore, the Commission cannot respond to non-agenda issues brought up under Public Comment other than to provide general information. The public may address the Commission regarding items listed on the agenda during the consideration of each item.

B. REGULAR BUSINESS

B1. Make a Determination on Two Heritage Trees Appeals at 1020 Hermosa Way *(Attachment)*

B2. Discuss and Make Recommendations to City on the Updated Integrated Pest Management (IPM) Policy *(Attachment)*

B3. Discuss and Review the Water Resource Policy Subcommittee's Recommendations on New State Water Mandates

B4. Informational Presentation from Diane Bailey, Executive Director of Menlo Spark on the California Clean Power Community Choice Aggregation (CCA) *(Attachment)*

B5. Discuss and Make Recommendations to the General Plan Advisory Committee (GPAC)

B6. Discuss Arbor Day Tree Planting Event

B7. Discuss Cancellation of summer EQC Meeting

B8. Approve March 25, 2015 Minutes *(Attachment)*

C. REPORTS AND ANNOUNCEMENTS

C1. Staff Update on Environmental Policies to be Considered by City Council

C2. Commission Subcommittee Reports and Announcements

C3. Discuss Future Agenda Items

D. ADJOURNMENT

This Agenda is posted in accordance with Government Code §54954.2(a) or §54956. Members of the public can view electronic agendas and staff reports by accessing the City website at http://www.menlopark.org and can receive e-mail notification of agenda and staff report postings by subscribing to the "Notify Me" service on the City's homepage at www.menlopark.org/notifyme. Agendas and staff reports may also be obtained by contacting the commission liaison, Heather Abrams, Environmental Programs Manager, at (650) 330-6720. (Posted 4/16/15)

At every Regular Meeting of the Commission, in addition to the Public Comment period where the public shall have the right to address the Commission on any matters of public interest not listed on the agenda, members of the public have the right to directly address the Commission on any item listed on the agenda at a time designated by the Chair, either before or during the Commission's consideration of the item.

At every Special Meeting of the Commission, members of the public have the right to directly address the Commission on any item listed on the agenda at a time designated by the Chair, either before or during consideration of the item.

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Persons with disabilities, who require auxiliary aids or services in attending or participating in Commission meetings, may call the City Clerk's Office at (650) 330-6620.

ENVIRONMENTAL QUALITY COMMISSION

April 22, 2015
Staff Report

REGULAR BUSINESS: Make a Determination on Two Heritage Tree Appeals at 1020 Hermosa Way

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RECOMMENDATION

Staff recommends the Environmental Quality Commission (EQC) deny the appeal and uphold staff's decision to approve the heritage tree removal permit application at 1020 Hermosa Way.

BACKGROUND

On February 18, 2015 Michael P Young, the arborist representing the property owner of 1020 Hermosa Way applied for a heritage tree permit *(Attachment A)* to remove two coast redwood trees (*Sequoia sempervirens.*) The redwood trees were approved for removal. The permit application for the oak was accompanied by an arborist report tree and tree survey *(Attachment B)* that stated the trees were recommended for removal for the following reasons:

- Co-dominate leaders are unstable.
- Trees present a hazard.

The City Arborist reviewed the application, inspected the redwoods and completed the City Arborist's Evaluation Form *(Attachment C)*. The City Arborist approved the application based on the following:

- Trees were previously topped.
- Vigorous co-dominate stems are large and weakly attached.
- Risk rating is moderate to high.

On March 26 2015, Mary Ann Robbiano filed a heritage tree appeal to the EQC *(Attachment D)* to deny the removal of the redwoods and stated the following reasons:

- Menlo Park is a Tree City USA.
- Trees were a factor in Mrs. Robbiano purchasing home at 1000 Hermosa Wy.
- Coast redwood is the California State Tree
- Trees are healthy

Section 13.24.040, of Menlo Park's Heritage Tree Ordinance (Municipal Code), requires staff and the EQC to consider the following eight factors when determining whether there is good cause for permitting removal of a heritage tree:

(1) The condition of the tree or trees with respect to disease, danger of falling, proximity to existing or proposed structures and interference with utility services;

(2) The necessity to remove the tree or trees in order to construct proposed improvements to the property;

(3) The topography of the land and the effect of the removal of the tree on erosion, soil retention and diversion or increased flow of surface waters;

(4) The long-term value of the species under consideration, particularly lifespan and growth rate;

(5) The ecological value of the tree or group of trees, such as food, nesting, habitat, protection and shade for wildlife or other plant species;

(6) The number, size, species, age distribution and location of existing trees in the area and the effect the removal would have upon shade, privacy impact and scenic beauty;

(7) The number of trees the particular parcel can adequately support according to good arboricultural practices;

(8) The availability of reasonable and feasible alternatives that would allow for the preservation of the tree(s).

Staff's decision to approve the removal permit was based on criteria one (1), four (4), and eight (8) of the Heritage Tree Ordinance.

With respect to criteria one (1), concerns related to the condition of the tree with respect to disease and danger of falling were assessed;

- The main stem of both subject trees appears to have been "topped" at approximately 50 feet in height *(Attachment E.)* Topping is the practice of arbitrarily cutting back or removing the main stems without regard to the location or size of cut being made.

- A tree's response to topping is typically the vigorous regrowth of sprouts which originate from advantageous and latent buds. These buds emerge just below the surface of the bark and therefore have a significantly weaker attachment than the original parent stem. The sprouts developing from the topping cuts of the redwoods have grown into significant co-dominate leaders

(approximately 30-40 feet in length and 12-20 inches in diameter). These co-dominate leaders are inherently prone to failure due to weak points of attachment. As these leaders' increases in size and weight over time, they have a greater likelihood of failure.

- The location and size of defective parts (co-dominate stems) creates a significant target zone of approximately 50 – 60 feet.

- There are multiple targets within the target zone including the traffic within the city street, the driveway and home at 1020 Hermosa Way and the home at 1000 Hermosa Way. The pedestrian, vehicle and bicycle traffic on Hermosa Way is occasional. The occupancy rate of the driveway is occasional and the occupancy rate of homes is frequent.

- The co-dominate limbs are crowded and have multiple crossing and rubbing branches in the upper crown of both redwood trees.

- The old topping cuts provide a vector for disease to infect the trees and compromise their health.

With respect to criteria four (4), the long-term value of the species under consideration, particularly lifespan and growth rate was assessed.

- The coast redwood is a fast growing evergreen conifer which is native to a narrow range of the Northern California coast fog belt. The iconic tree is recognized as the tallest tree in the world and has been designated as the official California State Tree. In its natural environment, where the coastal climate provides ample rainfall and moderate temperatures, the tree can grow to nearly 400 feet tall and live over 2,000 years old. Their massive height allows the interception of coastal fog, which condenses on needles and then falls to the forest floor contributing significantly to available soil moisture. Groves of redwoods create a microclimate with dense shade and a thick layer of dead needles that accumulates as ground cover. This ground cover (or duff layer) moderates soil temperatures, increases soil moisture, and decomposes to enrich the soil with minerals and nutrients.

  The fog belt along the Southern and Mid-peninsula of San Mateo County typically is limited to the western slope of the Santa Cruz Mountains. Menlo Park is located in the rain shadow of these mountains and receives only a fraction of the average annual precipitation found within the redwood native range. Due to higher average temperatures and diminished rainfall and fog it is rare to see a naturally growing coast redwood anywhere on the eastern slope of the mountains, aside from the occasional errant tree found in creek beds or north facing slope in a moist canyon.

When the coast redwood is planted in developed areas for ornamental purposes outside of its native environment there are a variety of stresses limiting its growth, vigor, and longevity, e.g., compacted soil, higher temperatures, limited rooting space, accumulation of salts from irrigation, poor drainage, etc. Under these less than favorable conditions, the redwood rarely exceeds 120 feet in height and is susceptible to several pathogens including Botryospheria canker, Seridium spp., and Cytospora canker. Infection commonly occurs through wounds or injured tissue. Even when provided with adequate supplemental irrigation, it is not uncommon to see landscape redwoods that begin to decline after 80-100 years or less.

The accumulation of a variety of factors typically contributes to plant stress. While the current condition of the subject redwood trees is healthy, the previous topping cuts provide a vector for pathogens. One or more of co-dominate stems are likely to fail or be removed in order to mitigate risk. The result would be the loss of considerable live foliage predisposing the tree(s) to disease infection with the potential to negatively affect tree health and reduce longevity.

With respect to criteria eight (8), the availability of reasonable and feasible alternatives that would allow for the preservation of the tree(s) was assessed:

- The current best management practices for restoration pruning of topped trees are the reduction and/or removal or selective branches. The goal or restoration pruning in this case would be to improve the structure of the tree. On trees with several sprouts initiating from a stem, one to three sprouts are selected to remain as permeant branches or re-established as the main leader.

- Due to the substantial size and location of the co-dominate stems, the reduction and/or removal cuts needed to significantly mitigate risk, would likely exceed the removal of one-fourth of the branches. Best management practices for pruning recommend not removing more than one-fourth of the live crown during one growing season in order to minimize plant stress. This threshold is specified in the Heritage Tree ordinance. Removing less than one-fourth of the defective co-dominate branches would not likely be adequate to significantly reduce risk of failure.

- If the central leaders of the redwoods were re-established by removing or aggressively heading back all competing co-dominate leaders without removing more than one-fourth of the live branches, the structure of the tree would be likely be deemed poor to fair. In this scenario, the re-established central leaders would continue to have weak points of attachment and the likelihood of failure of those parts would be probable and risk would remain moderate to high.

Staff recommends the Environmental Quality Commission (EQC) deny the appeal and uphold staff’s decision to approve heritage tree removal permit application based on these findings.

Signature on File
Christian Bonner
City Arborist

Signature on File
Sheena Ignacio
Environmental Programs Specialist

PUBLIC NOTICE: Public Notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting.

ATTACHMENTS:

A. Heritage Tree Removal Application
B. Photograph of the Heritage Tree
C. City Arborist Evaluation Form
D. Heritage Tree Removal Application Denial Letter
E. Applicant's Appeal of the Removal Denial

ATTACHMENT A

PAID

FEB 18 2015

CITY OF MENLO PAR

Heritage Tree Removal Permit Application

This application must be submitted with the Arborist Form

Submit application forms to 701 Laurel Street, Menlo Park, CA 94025

Application No. HTR2015-00060

Purpose of application: Removal ☒ **Pruning of more than 25%** ☐

Permit Fee. $135.00 (each tree, up to 3 trees); $90 each additional tree (separate forms required for each tree)

PLEASE PRINT CLEARLY

Site Address: 1020 Hermosa

Name of Applicant: Michael P. Young Phone 650-321-0283 FAX

Mailing Address: _____ Email: michael@urbantreemanagement.com

URBAN TREE MANAGEMENT
P.O BOX 971
LOS GATOS, CA 95031-0971

Signature of property owner authorizing access and inspection of tree in his/her absence

_____ Date: 2/18/15

Type of Tree: Redwood Location on property: front Yard

Reasons for Request

See Arborist Form & Tree Report.

IF TREE IS DAMAGING STRUCTURE PLEASE ATTACH PHOTOS DEMONSTRATING DAMAGE.

Are you considering any construction on your property in the next 12 months? Yes ☒ No ☐
If yes, please submit additional information describing what type of construction is planned and a site plan.

site plan & Hse plans w/ Bldg & plng Dept

- **Tree may not be removed (or pruned over 25%) unless and until the applicant has received final permission from the City as indicated below.**
- **The signed permit approval form must be on site and available for inspection while the tree work is being performed.**
- **A suitable replacement tree, 15 gallon size or larger with a mature height of 30 feet or more, is to be installed in the time frame indicated below.**

---------- PLEASE DO NOT WRITE BELOW THIS LINE ----------

PERMIT APPROVED ☒ PERMIT DENIED ☐

TIMING OF REMOVAL	TIMING OF REPLANTING
☒ Upon receipt of this approved permit ☐ After applying for a Building Permit for associated construction	☒ Within 30 days of Heritage Tree removal ☐ Prior to final building inspection of associated construction

Staff Signature: _____ Date: 3/13/15

Print name and title: C. BOWLES, ARBORIST

Arborist Form

Please complete one form for each tree. Mark each tree with colored ribbon or tape prior to our inspection.

Site Address: 1020 Hermosa

ARBORIST INFORMATION:

Name of Certified Arborist: Michael P. Young

ISA or ASCA number: 623 Menlo Park Business License number: Consultant

Company: URBAN TREE MANAGEMENT

Address: P.O BOX 971 ~~LOS GATOS, CA 95031-0971~~

Phone: 650 - 321-0207 FAX: _____ Email: michael@urbantree management.com

TREE INFORMATION:

Date of Inspection: 1/8/15

Common Name: Redwood Botanical Name: Sequoia Sempervirens

Location of Tree: front yard. Height of Tree: 80

Diameter of tree at 54 inches above natural grade: 40 #1

Circumference of tree at 54 inches above natural grade: _____

Condition of Tree:

Tree is in Fair- Good Health but has a Structural rating of Fair-Poor due to the fact it was topped many years ago.

If recommending removal or pruning, please list all reasons: Remove because Codominant leaders from the old topping cut are unstable. They will fail & present a hazard to all below.

Suggested Replacement Tree: Up to the Landscape Architect/Designer

Signature of Arborist: _____ Date: 2/12/15

Arborist Form

Please complete one form for each tree. Mark each tree with colored ribbon or tape prior to our inspection.

Site Address: 1020 Hermosa

ARBORIST INFORMATION:

Name of Certified Arborist: Michael P. Young

ISA or ASCA number: 623 Menlo Park Business License number: Consultant

Company: URBAN TREE MANAGEMENT

Address: P.O. BOX 971 ~~LOS GATOS, CA 95031-0971~~

Phone: 650 - 321-0202 FAX: _____ Email: michael@urbantree management.com

TREE INFORMATION:

Date of Inspection: 1/8/15

Common Name: Redwood Botanical Name: Sequoia Sempervirens

Location of Tree: Front yard. Height of Tree: 80

Diameter of tree at 54 inches above natural grade: 48 #2

Circumference of tree at 54 inches above natural grade _____

Condition of Tree:

Tree is in Fair- Good Health but has a Structural rating of Fair-Poor due to the fact it was topped many years ago.

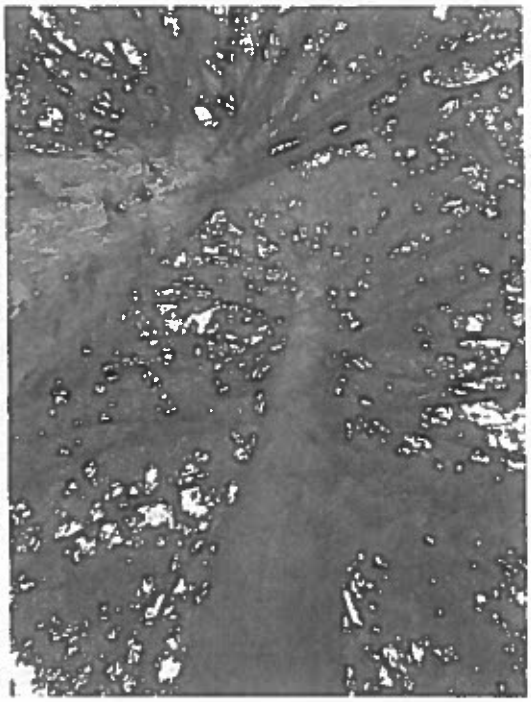
If recommending removal or pruning, please list all reasons: Remove because Codominant leaders from the old topping cut are unstable. They will fail & present a hazard to all below.

Suggested Replacement Tree: Up to the Landscape Architect/Designer

Signature of Arborist: _____ **Date:** 2/12/15

urbantreemanagement inc.

Tree Survey
1020 Hermosa Way
Menlo Park, CA



Prepared by:

Michael P. Young

Certified Arborist WC ISA #623

January 8, 2014

the International Society of Arboriculture Standards. The canopy height and spread are estimated using visual references only.

General Issues and Recommendations

Redwoods

Both of the Redwood trees were previously topped and have since grown back multiple leaders, which are approx. 30' tall, from the old topping cuts. These are inherently weakly attached. There is a high probability that these trees will break large leaders if left unattended. The trees should either be considered for removal, or remedial pruning to attempt to make them less hazardous.

The shared Valley Oak in the back yard has a large hole in it and should be considered for removal.

The Redwood and Live Oak are over the rear fence. There is existing paving and a pool that have already disturbed the soil in this area so future construction activities will have no negative affect on their trees.

Tree Structure

Consistent structural pruning to reduce the number of poorly attached leaders is an industry best practice. It reduces the incidence of limbs tearing from the trunk due to weight or weather, and fewer limb tears reduce the incidence of tear-based central trunk decay. The trees on this property appear to have Fair to Good structure. This means that only routine pruning/maintenance of the trees is needed.

Tree Health

All of the trees surveyed appear to be in relatively good health with no diseases or nutritional deficiencies noted. Root collar excavations (RCEs) are recommended for these trees on the property to discourage ground-based fungal pathogens and insects from entering the tree above the root system. A root collar excavation is easily done with a hand-shovel and consists of excavating a small area around a tree so that the barked area of the tree and the buttress roots are not covered by soil.

Local Regulations Governing Trees

The Menlo Park Tree Preservation Ordinance requires permitting for removal of the following trees:

> A tree or group of trees of historical significance, special character or community benefit, specifically designated by resolution of the city council;

If new utility lines are to be installed, they should be routed along the edge of the paved surfaces that are farthest from trees. Any roots exposed during these construction activities that are larger than 2 inches in diameter should be cleanly cut at the edge of the excavation trench and covered with burlap and kept moist until the roots can be covered again with soil. Typically wetting the burlap in the morning and the end of the workday is sufficient. A Certified Arborist must pre-approve the cutting of roots greater than 2" in diameter.

General Tree Protection Plan

It is required that protective fencing is provided during the construction period to protect those trees that are planned to be preserved. This fencing must protect a sufficient portion of the root zone to be effective. In most cases, it would be essential to locate the fencing a minimum radius distance of 6 times the trunk diameter in all directions from the trunk. There are areas where we will amend this distance based upon proposed construction. In my experience, the protective fencing must:

a. Consist of chain link fencing having a minimum height of 6 feet.
b. Be mounted on steel posts driven approximately 2 feet into the soil.
c. Fencing posts must be located a maximum of 10 feet on center.
d. Protective fencing must be installed prior to the arrival of materials, vehicles, or equipment.
e. Protective fencing must not be moved, even temporarily, and must remain in place until all construction is completed, unless approved be a certified arborist.

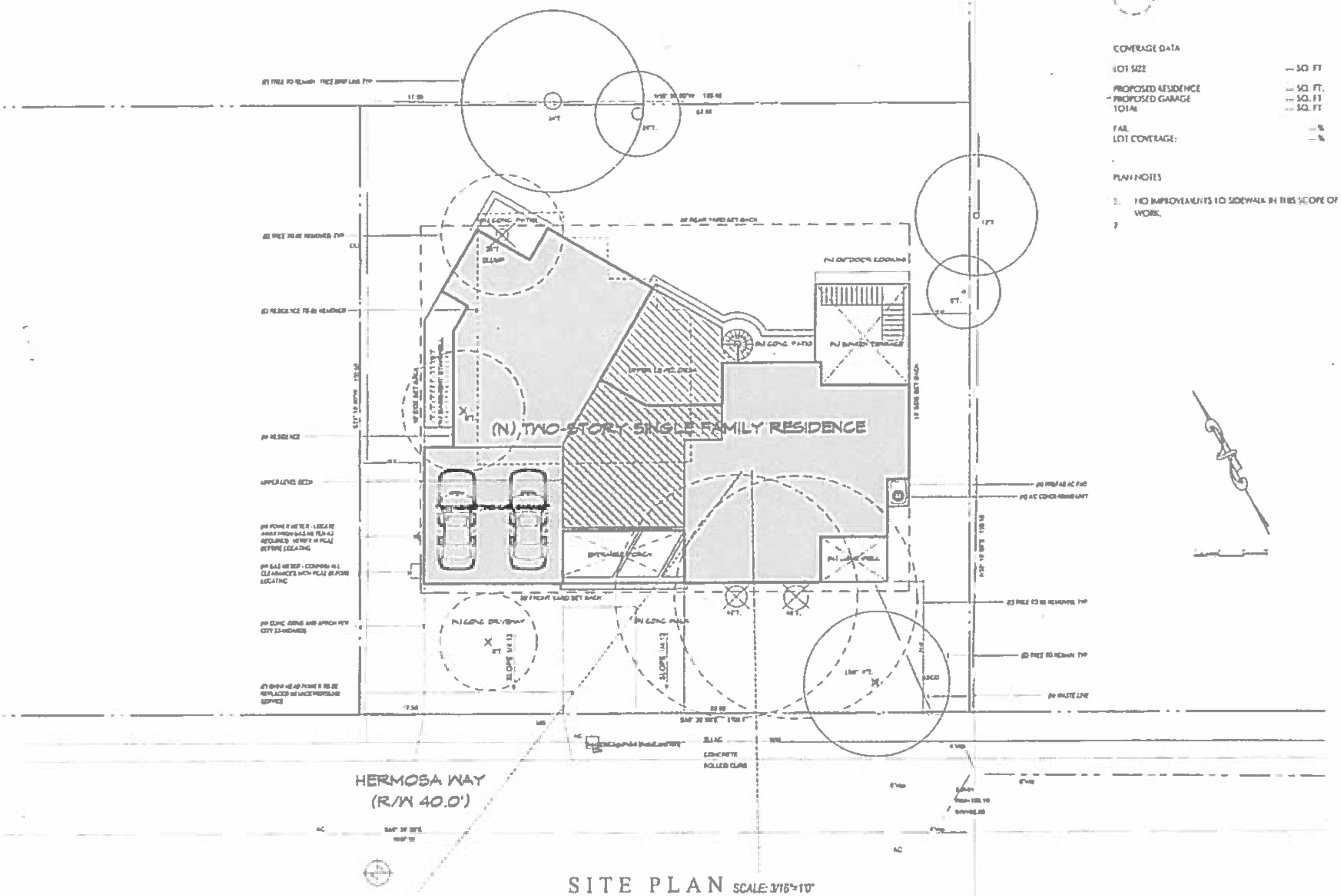
There must be no grading, trenching, or surface scraping inside the driplines of protected trees, unless specifically approved by a Certified Arborist.

Trenches for any underground utilities (gas, electricity, water, phone, TV cable, etc.) must be located outside the driplines of protected trees, unless approved by a Certified Arborist. Arborist –approved trenching inside the drip lines of significant trees should be done by hand. Alternative methods of installation may be suggested.

Mulch should cover all bare soils within the tree protection fencing. This material must be 6-8 inches in depth after spreading, which must be done by hand. I prefer course wood chips because it is organic, and degrades naturally over time.

Appropriate tree wells should be constructed around trees to protect against fill. Loose soil and mulch must not be allowed to slide down slope to cover the root zones or the root collars of protected trees.

Materials must not be stored, stockpiled, dumped, or buried inside the driplines of protected trees.



SITE PLAN SCALE: 3/16"=1'0"

GRAPHIC LEGEND

COVERAGE DATA

LOT SIZE — SQ. FT.

PROPOSED RESIDENCE — SQ. FT.
PROPOSED GARAGE — SQ. FT.
TOTAL — SQ. FT.

FAR — %
LOT COVERAGE: — %

PLAN NOTES

1. NO IMPROVEMENTS TO SIDEWALK IN THIS SCOPE OF WORK.
2.

THE HERMOSA RESIDENCE

"A single family residence"

1020 Hermosa Way • Menlo Park • California

CAMARGO & ASSOCIATES ARCHITECTS

A1.0

City Arborist Evaluation Form

Address: 1020 Hermosa Way **Permit #** -1500060 (A)

Type of tree: Sequoia sempervirens

Private property Yes ☒ No ☐ Residential ☒ Commercial ☐

Structure Poor/ Fair Approximate Height 90

Health Good Diameter (at 4 feet) 40

Overall Fair

Observations:

Mainstem (s) Topping cut at 50' height. 4 vigorous co-dominate sprouts ~40'.

Other branches Cossing, crowded branching in uper crown

Roots No damage or defects visable at time of inspection

Cavities None visable at time of inspection

Decay No signs or symptoms of decay

Growth Normal for age/species

Conditions around tree Front yard, natural leaf litter ground cover

Other heritage trees nearby Oak, Redwood

Other comments Vigorous co-dominate stems are weakly attached & more prone to failure than orginal parent stem.

Category (check one):

- ☒ Structural problem
- ☐ Possibly hazardous
- ☐ Diseased
- ☐ Dead (or nearly dead)
- ☐ Property Damage
- ☐ Construction related
- ☐ Emergency
- ☐ Other

Conclusions:

- ☐ Permit Approved
- ☒ No Permit decision at this time. Further evaluation by the City is recommended.

Signed _____ City Arborist. Date 3/13/15

City Arborist Evaluation Form

Address: 1020 Hermosa Way **Permit #** -1500060 (B)

Type of tree: Sequoia sempervirens

Private property Yes ☒ No ☐ Residential ☒ Commercial ☐

Structure Poor/ Fair Approximate Height 90

Health Good Diameter (at 4 feet) 48"

Overall Fair

Observations:

Mainstem (s) Topping cut at 50' height. 3 vigorous co-dominate sprouts ~40'.

Other branches Cossing, crowded branching in uper crown

Roots No damage or defects visable at time of inspection

Cavities None visable at time of inspection

Decay No signs or symptoms of decay

Growth Normal for age/species

Conditions around tree Front yard, natural leaf litter ground cover

Other heritage trees nearby Oak, Redwood

Other comments Vigorous co-dominate stems are weakly attached & more prone to failure than orginal parent stem.

Category (check one):

- ☒ Structural problem
- ☐ Possibly hazardous
- ☐ Diseased
- ☐ Dead (or nearly dead)
- ☐ Property Damage
- ☐ Construction related
- ☐ Emergency
- ☐ Other

Conclusions:

- ☐ Permit Approved
- ☒ No Permit decision at this time. Further evaluation by the City is recommended.

Signed _____ City Arborist. Date 3/13/15

ATTACHMENT D

Menlo Park Engineering Department
701 Laurel Street
Menlo Park, CA 94025

26 March 2015

Subject: Heritage Tree Removal Appeal

I have been a resident of 1000 Hermosa Way since 1952. I was very disturbed to receive in the mail the notification that states that the City Arborist has evaluated and approved the removal of 2 Coastal Redwoods at the residence of 1020 Hermosa Way.
Menlo Park is advertised as Tree City USA. The trees were one of the reasons that my husband and I bought our property at that location on Hermosa Way. We loved all the trees that were on our lot and the lots around the area. The removal of these trees is contrary to this claim. In addition, the Coastal Redwood is the California State tree.
It is also hard to evaluate the reason for the approval, poor structure, without the arborist report being included in the notification. I have read that if a conifer tree is healthy, the top will reach to the sky. Unhealthy, the tops will flatten out. Both of these two tree tops are reaching to the sky.

I am appealing this request and as part of the appeal, I would like to receive a copy of the arborist report to be reviewed by an independent arborist that I have contacted.

Thank you for consideration,

Mary Ann Robbiano

Mary Ann Robbiano
1000 Hermosa Way
Menlo Park, CA 94025

PUBLIC WORKS DEPARTMENT

Council Meeting Date: April 22, 2015
Staff Report

REGULAR BUSINESS: **Discuss and Recommend Implementation to City on the Draft Integrated Pest Management (IPM) Policy**

RECOMMENDATION

Discuss and recommend implementation to City on the draft Integrated Pest Management (IPM) Policy.

BACKGROUND

The City of Menlo Park's current Integrated Pest Management (IPM) Policy *(Attachment A)* was adopted in February 1998 in order to maintain stormwater permit requirements. In October 2009 the San Francisco Bay Regional Water Quality Control Board (Water Board) adopted the Municipal Regional Stormwater Permit (MRP), requiring the City and each of the other 75 agencies to minimize reliance on pesticides that pose a threat to water quality and require IPM in municipal operations and on municipal property. The San Mateo County Water Pollution Prevention Program (SMCWPP) responded by releasing a standardized template *(Attachment B)* in August 2011, which was adopted by most jurisdictions in the county.

Since then the EQC has discussed IPM during the following meetings:

- On June 10, 2010 the EQC suggested eastbound of Sand Hill Road east of I-280 as a test case for eliminating the use of herbicides during the winter season.
- On July 7, 2010 the EQC discussed City staff's exploration of alternative options to pesticide use along Sand Hill Road heading east at the intersection of 280 and Oak Avenue.
- On October 6, 2010 City staff discussed with the EQC a scheduled pilot project on alternative options to pesticides at the intersection of Oak Avenue and Sand Hill Road.
- On April 24, 2013 City staff provided the EQC with an informative presentation on current IPM operations
- On June 25, 2014 City staff provided the EQC with an informative presentation on current pesticide methods and was requested to conduct a six month trial on alternative methods of weed control.

ANALYSIS

In July of 2014, City staff created two test plots containing a variety of annual grasses as well as annual and perennial broadleaf weeds, similar to what is encountered in park landscapes. The two plots were divided into six areas separated by colored stakes. Each plot contained identical test areas, which included three chemical methods, two mechanical methods, and one control. The chemical methods included the use of Roundup Pro Max (active ingredient: Glyphosate), BurnOut II (active ingredient: Citric Acid/Clove Oil), and Finalsan Total Vegetation Killer (active ingredient: ammoniated soap of fatty acids). The mechanical controls included mowing vegetation and mowing/mulching.

A summary of these methods revealed all methods are effective for controlling the variety of weeds City staff encounters in the parks landscape. Of the methods used, Roundup Pro Max had the longest lasting effect at the lowest cost. Other chemical control methods required higher rates of application, higher costs per mixed rates, and more frequent applications required to achieve the same result. Mechanical methods were effective but required increased staff time to manage weeds in order to maintain the same level of weed control currently being achieved.

IMPACT ON CITY RESOURCES

The City of Menlo Park's draft IPM Policy (Attachment C*)* prohibits the use of pesticides surrounding sensitive receptors, which will result in increased costs due to the need of additional materials and staff time.

PUBLIC NOTICE

Public Notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting.

ATTACHMENTS

A. Current City of Menlo Park IPM Policy
B. SMCWPPP IPM Template Policy
C. City of Menlo Park Draft IPM Policy

Report prepared by:
Sheena Ignacio
Environmental Specialist

Heather Abrams
Environmental Manager

CITY OF MENLO PARK

INTEGRATED PEST MANAGEMENT PLAN

FEBRUARY 1998

FAS97.1-10

TABLE OF CONTENTS

CITY OF MENLO PARK INTEGRATED PEST MANAGEMENT PLAN

INTRODUCTION

The mission of The Division of Maintenance of the City of Menlo Park ("DIVISION") is to provide safe, enjoyable and aesthetically pleasing environments for the residents and visitors of Menlo park. The DIVISION recognizes the importance of dealing with unwanted animals and plants (pests) in those environments following ecologically, esthetically and economically balanced approaches .

Therefore, the DIVISION has decided to address all pest situations in the parks and city properties following the guidelines of Integrated Pest Management or IPM.

INTEGRATED PEST MANAGEMENT POLICY STATEMENT

A. INTEGRATED PEST MANAGEMENT: DEFINITION

The policy of The DIVISION with regards to situations caused by unwanted animals and plants (pests), is to follow the principles of Integrated Pest Management (IPM). The IPM concept to be followed by the DIVISION, is based mostly on one provided by the University of California, State Wide Integrated Pest Management Project (Division of Agriculture and Natural Resources U. C. IPM Publication 12, 1991):

"Integrated Pest Management, is a pest management strategy that focuses on long-term prevention or suppression of pest problems with minimum impact on human health, the environment, and non-target organisms. Preferred pest management techniques include encouraging natural biological control, using alternate plant species or varieties that resist pests, selecting pesticides with a lower toxicity to humans or non-target organisms; adoption of cultivating, pruning, fertilizing, or irrigation practices that reduce pest problems; or changing the habitat to make it incompatible with pest development.

Broad spectrum pesticides are used as a last resort when careful monitoring indicates they are needed according to preestablished guidelines. When treatments are necessary, the least toxic and most target-specific pesticides are chosen.

The IPM definition that we have adopted differs from the IPM definition that appears in the U. C. IPM project publication , mentioned above, in that the definition provided by the U. C. IPM program considers in some instances, the use of broad spectrum pesticides. The IPM policy of the DIVISION does not include the use of broad spectrum pesticides.

Before adopting the above definition of IPM, The DIVISION considered other IPM definitions proposed by several agencies and institutions. Some of the definitions reviewed were:

1. D. R. Bottrell. 1979. Council of Environmental Quality. Integrated Pest Management. Superintendent of Documents. U. S. Government Printing Office. Washington, D. C. 20402.

2. Anonymous. 1993. Pest Control in the School Environment. United States Environmental Protection Agency, Office of Pesticide Programs (H7506C). EPA 735-F-93-012.

3. Olkowski. W., H. Olkowski and S. Daar. 1992. What is IPM. Bio-Integral Resource Center (BIRC). Berkeley, CA.

B. IPM POLICY EVOLUTION AND UPDATE

The DIVISION, recognizes that the field of pest management is constantly evolving. Therefore, the DIVISION will review the IPM plan every year. This revision will be done to incorporate changes that are needed in light of evolution on pest management concepts and specific situations at Menlo Park. The goal of the DIVISION is to have a pest management plan and policy that reflect the best approaches to pest management.

For example, the DIVISION acknowledges the concept " Ecologically Based Pest Management ("EBPM") " recently proposed by the National Research Council to be used to ecologically deal with pest situations (Anonymous. 1996. Ecologically Based Pest Management. National Research Council. National Academy of Sciences Press. 2101. Constitution Avenue, N. W. Washington D. C. 20418). The EBPM concept is proposed as an improvement of the IPM concept. The DIVISION follows the development and applicability of the EBPM concept and if appropriate, will fully adopt it . The DIVISION has prepared this IPM plan following ecological principles and believes that this IPM plan can be converted into an EBPM if desired.

GOALS AND CITY POLICIES FOR THE INTEGRATED PEST MANAGEMENT PROGRAM

GENERAL GOALS

1. The pest Management program of the City of Menlo Park is based on the IPM principles. Thus, the pest Management program of the City of Menlo Park is primarily based on minimal, or no use, of synthetic chemical pesticides. Emphasis will be given to biological and environmental measures to manage pests. Synthetic chemical pesticides, will not be used when an effective alternative is available.

2. THE DIVISION WILL REVIEW THIS PLAN EVERY YEAR. FOR THE REVIEW, THE DIVISION WILL OBTAIN INPUT FROM AN IPM ADVISORY COMMITTEE THAT WILL BE SET UP BY THE DIVISION.]

3. The DIVISION will train its employees on pest management methods that fit the IPM philosophy. This training will be achieved with in-house or outside resources.

4. The DIVISION will have outreach programs to keep citizens informed about the pest management program followed by the DIVISION and to make the citizens of Menlo Park more aware of the role of organisms in the Menlo Park ecosystem.

5. When it is determined that a pesticide is necessary, the least hazardous pesticide available that will provide and adequate level of control will be used.

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

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

8. Pesticides, when used, will be applied following the instructions in their label. This includes instructions on:

    A. Proper mixing procedures.
    B. The proper use of the pesticide.
    C. The proper disposal of empty containers and any unused material.

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

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

    City employees must only use pesticides approved and provided by the city for pest management operations conducted by the city.

11. Employees will receive training in the proper use of a pesticide before they can use that pesticide. This specific training will be conducted on an annual basis, and will be part of the state mandated annual training on the safe and effective use of pesticides that all employees who use pesticides are required to participate in.

12. For pest management actions that take place in parks, median strips, rights-of-ways, and any other area that is considered an agricultural use by the State of California, a pest Control recommendation will be prepared by a Pest Control Adviser who is licensed by the State of California.

13. Only city employees who have a current Qualified Applicator Certificate will apply pesticides.

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

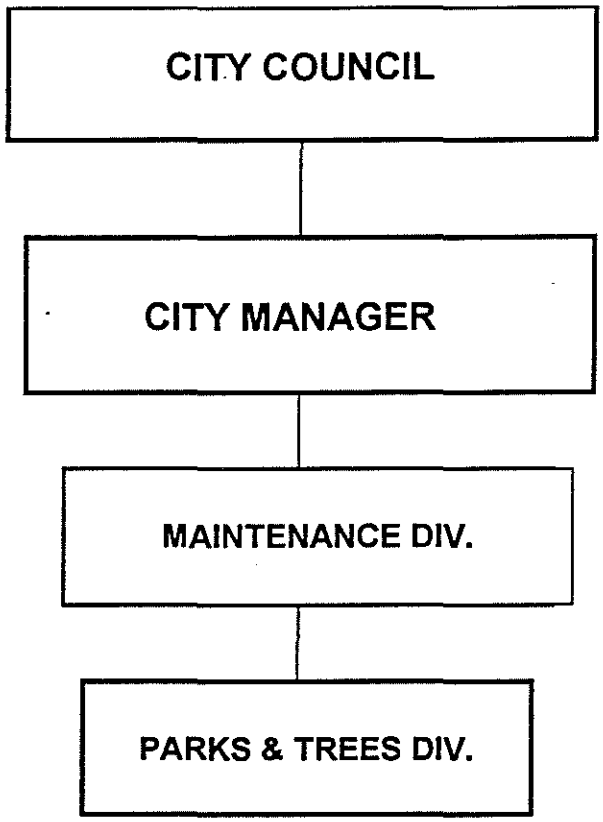
OPERATIONAL GOALS:

These goals will be further defined, as specific pest situations are identified and management options defined.

1. To reduce pesticide use, a target reduction of _____% during _____ has been established. The basis for monitoring pesticide usage will be based on active and inert ingredients and adjutants .

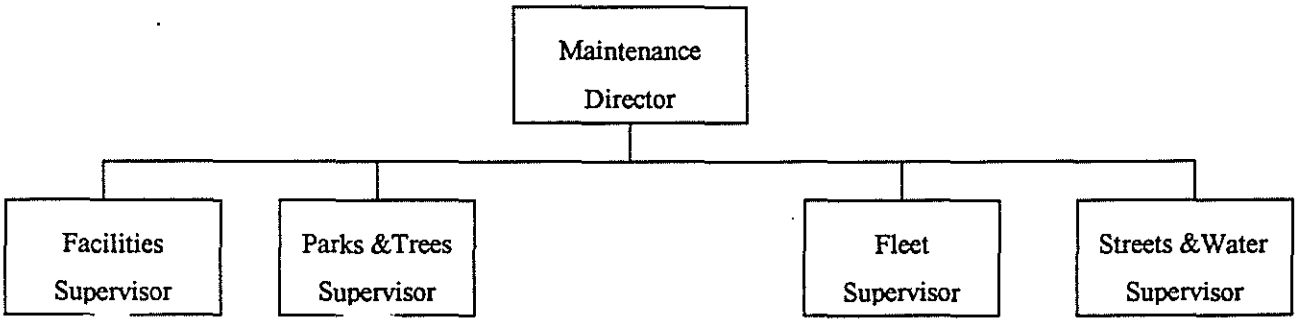
2. The DIVISION WILL START developing specific IPM PLANS for various localities in the city based on pest detection.

IMPLEMENTATION STRUCTURE



PERSONNEL RESPONSIBLE FOR THE IMPLEMENTATION OF THE INTEGRATED PEST MANAGEMENT PLAN

By direction of the Maintenance Director the Parks and Trees Supervisor will be responsible for the implementation of the integrated Pest Management Plan.



GUIDELINES TO DEVELOP PEST MANAGEMENT STRATEGIES

SUMMARY: This section provides the general guidelines to develop and implement the IPM plan. Before pest management operations can be conducted against any pest, an "SPECIF IPM PEST MANAGEMENT STRATEGY" must exist for that pest. This strategy will specify:

1. The pest to be controlled, including proper identification
2. The location
3. The host (if applicable), the plant or habitat infested .
4. Action thresholds
5. Approved methods of management.

If an applicable management strategy does not exist one must be developed on a case by case basis.

PROCESS TO DEVELOP SPECIFIC PEST MANAGEMENT STRATEGIES

Each specific pest management strategy will contain:

1. **Pest Identification:**

   The pest should be identified as specifically as is reasonable. Scientific and common names are acceptable, but if scientific names are used common names, accepted by the pest management community, should also be noted to make the strategy as understandable as possible. As an example, identifying the pest as Pacific Flathead Borer is preferable to identifying it as "borer" , and the scientific name (Chrysobothris malis) should be included for completeness.

2. **The Location:**

   The location where the pest was found, should also be identified as specifically as is reasonable. It should either specify a location by name or by type of facility. Some examples would be, Burgess Park, parking lot A .[THERE WILL BE AN EFFORT TO STORE THE LOCATION IN A COMPUTERIZED SYSTEM TO ALLOW QUICK RETRIEVAL AND FOR HISTORICAL ANALYSIS TO ASCERTAIN PATTERN OF PEST OCCURRENCE AND PESTICIDE USE. AS RESOURCES ALLOW IT, INFORMATION WILL BE STORED BASED IN GEOGRAPHIC INFORMATION SYSTEM FORMAT]

3. **The Host (if applicable):**

   The host is the organism from where the pests is obtaining nourishment. An example of a host would be oaks for aphids.

4. **Action Thresholds:**

An action threshold is an observable condition of the host, or population level, of the pest that must be reached before a pest management measure can be initiated. The action threshold is determined to initiate a pest management measure to keep the pest population below an injury level determined by the DIVISION. This injury level could be based on pest population numbers or host appearance (aesthetic injury level). The injury levels will be very habitat specific depending on many factors.

Thus, an organism , is only a problem if it causes a significant amount of damage or causes certain aesthetic appearance. For example certain number of aphids per shoot or leaf can be tolerated on some plants; however, if the number of aphids reaches a certain level (action threshold) that could indicate that the aphid population is going to reach an injury level (economic or aesthetic injury level), then the aphids might be considered a problem and a management measure may be applied

The action threshold should take into account the pests' natural population fluctuations, the pests' natural enemies, the time needed for the control measure to take effect, the weather, reactions of the public and other variables. To help develop these action thresholds, the DIVISION WILL adopt monitoring procedures to detect action thresholds. The DIVISION will utilize its knowledge of the ecosystem in Menlo Park and scientific resources available outside the DIVISION to adopt monitoring procedures and define action thresholds. One specific source of information will be the State Wide IPM program.

Typical action thresholds include:

A. Determining a certain number of aphids per shoot of a tree at certain sampling dates.
B. Determining certain level of honey dew droppings from aphids.
C. Observing a specified amount of damage from a pest (e.g. 25 % defoliation of a tree).

5. **Approved Management Actions:**

Management actions will be implemented after a certain action threshold is reached. Therefore action thresholds will be determined for specific management measures. Approved management actions should only include those practices in which the benefits of that action outweigh any potential adverse affects. Adverse affects include the time and cost involved to perform the control action, inconvenience o the public, health and other environmental concerns, etc. If no measure can be found that meets this criteria, then the only approved measure should be "no action" until an acceptable management measure is developed.

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

A. **Cultural Practices:**

Cultural practices are those, non-pesticide- based, measures, that are taken to alter the environment to be beneficial to the host, plant or habitat infested, and keep the pest from becoming a problem. Cultural practices in a park include water and fertilizer management, pruning and mulching. A large number of pest problems can be avoided if proper sanitation practices are followed. For example proper waste disposal can reduce yellow jacket nuisance in parks.

B. **Biological and Microbial Measures:**

Biological control involves the use of living agents such as predators parasitoids and microbes to regulate pest populations. For example, egg parasitoids (Trichogramma spp), sometimes are released to manage population of defoliating insects. Another example of biological control is the use of goats to manage vegetation.

C. **Mechanical Control:**

Mechanical control involves physically removing the pests. For example, weed removal using mechanical weeders . Removing aphids using high pressure water spray is another example.

PROCEDURE TO IMPLEMENT A PEST MANAGEMENT MEASURE

1. **Monitoring:**
   Monitoring is an integral part of any IPM plan. Since initiation of a pest management operation depends on determining when an action threshold is reached, monitoring of the environment is necessary to observe when it occurs. Monitoring and careful record keeping can also provide valuable data on the effectiveness of pest management actions and pest population fluctuations.

2. **Action Threshold Reached:**
   When the selected action threshold is reached for a particular pest, the appropriated management measure can be applied. The measure is applied taking into consideration observations of the pest's environment and health of the host, plant or habitat infested. Modifications of the environment can help to deter pest problems. A healthful plant is less likely to be attacked by an insect than an unhealthy plant. Therefore proper pruning, fertilizing, watering and other cultural practices can help reduce the necessity of pest management measures. Some of these cultural measures can be included as approved methods of pest management.

3. Apply appropriate management measure:

A. **Pest Control Recommendation:**
   Before any management measure is applied, it is necessary to determine if, according to State regulations, a Pest Control Recommendation (RECOMMENDATION) is necessary. For example, for management measures that take place in parks, golf courses, median strips, right-of-ways, and any other area that is considered an agricultural use by the State of California a RECOMMENDATION is required. This RECOMMENDATION is written by a Pest Control Advisor who is licensed by the State of California.

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

B. **Public Notification:**

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

1 Public notification signs
2. Blue dye in liquid pesticides.

C. **BUILDINGS**

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

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

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

This page could be replaced by a sample(s) of the sign(s) that are approved and used when pesticide applications are made.

PARKS AND OTHER LANDSCAPED AREAS

When pest management operations will be conducted in a park, vacant lot, public path, or in the landscaped area surrounding City owned building, public notification signs will be posted as described below:

1. Signs shall be posted before the pesticide application is started, and shall remain posted for at least 24 hours after the application or until the re-entry.

2. The signs shall:
   A. be at least 8.5 inches by 11 inches.
   B. be printed in black or white type on a red background.
   C. include the following information:
      a. The date the pesticide will be applied.
      b. Either i or ii:
         i. The location(s) within the park that is to be treated.
         ii. A notification that blue dye is in the pesticide to. indicate there it has been applied
      c. The problem pest(s)
      d. The be pesticide(s) that is to be used
      e. The re-entry period that is specified on the pesticide label
      f. A phone number to call for information concerns.

3. The signs shall be posted adjacent to all sidewalks and paths that enter the park, and at any other location where people would normally enter the park. If only a portion of a park is being treated, only that portion of the park needs to be posted.
   There are sample signs on the following pages. The first if for situations where blue dye is not used and the second is for situations where blue dye is used. They can be copied onto red paper, properly filled out, and used as a public notification sign.

[SAMPLE SIGNS HERE]

Median strips and Roadsides

When pest management measures will be conducted on median strips or roadsides, public notification signs will be posted as described below.

Signs are not required in most situations unless the pesticide label specifies that posting is required. However blue dye should be mixed with all liquid pesticides to indicate what areas have been sprayed.

If a walkway enters the area being treated, signs shall be posted as for parks.

APPLICATION

For Information Call

858-3490

3. **Dye Markers:**

All outdoor liquid pesticide applications will use a blue dye marker to indicate exactly where pesticide materials have been applied. [THE EXCEPTIONS TO THIS REQUIREMENT WOULD BE ON PLANT MATERIAL WHERE BLUE DYE WOULD SIGNIFICANTLY DETRACT FORM THE AESTHETICS OF THE PLANT MATERIAL.]

C. **Pesticide Purchasing:**

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

D. **Pesticide and Pesticide Container Disposal:**

a. Unused pesticides and empty pesticide containers will only be disposed of at disposal sites approved by the Director of Maintenance or his / her designee.
b. All empty containers that previously contained concentrated liquid pesticides are to be triple rinsed before disposal. The reinstate is to be added to the spray tank as part of the water used to dilute the pesticide.
c. All disposal procedures on the pesticide label and those required by law will be adhered to.

E. **Record Keeping:**

Records of all pesticide applications done by the DIVISION and contractors will be kept and stored at Maintenance Division. The records are to include:

a. the date and time of the application
b. the brand name of the pesticide
c. the technical name of the pesticide
d. Target organism (scientific and common name)
e. Where the pesticide was purchased
f. the amount of pesticide used
g. the concentration of the pesticide used
h. the name of the applicator or contractor
i. the equipment used to apply the pesticide
j. where the pesticide was applied
k. when applicable, the size of the area treated

These records are to be entered and kept in a format that allows its storage and processing using computerized data bases. A form designed for this purposed will be designed by the DIVISION sent to the County Office of Environmental Health by the end of the month following the application?

By State law, records of this same information are required to be kept [on file?]for two years and a monthly summary is required to be sent to the County Agricultural Commissioner's Office / Environmental Health.

F. **Evaluation:**

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

Training and Certification:

1. **Pesticide Application:**

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

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

To obtain a Qualified Pesticide Applicator Certificate, one has to pass a series of tests given by the State of California. Qualified Pesticide Applicator Certificate holders also have to complete 40 hours of additional training every 2 years.

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

2. **Pest Control Advisors:**

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

Public Outreach

As materials and resources become available, an effort will be made to provide the Citizens of Menlo Park with material to inform them about the IPM program of the DIVISION and with information to assist them to decide when to use pesticides, how to properly use pesticides if they are to be used, and how to understand the information on pesticide labels. This material will also include information on alternatives to pesticides and other pest control methods.

Use Reports

1. **Monthly Reports:**

The DIVISION will prepare a monthly report of all pesticides used by their respective departments and contractors. The report will list for each application:

a. Date and time of the application
b. Brand name of the pesticide
c. Technical name of the pesticide
d. Target organism (scientific and common name)
e. Where the pesticide was purchased
f. The amount of pesticide used
g. Concentration of the pesticide used
h. Name of the applicator or contractor
i. Equipment used to apply the pesticide
j. Where the pesticide was applied
k. When applicable, the size of the area treated

This report is to be sent to [Director of Maintenance].

By State law, records of this same information are required to be kept on file for two years and a monthly summary is required to be sent to the County Agricultural Commissioner's Office for applications

2. **Yearly Reports:**

The DIVISION will use the monthly reports to prepare a report for the City Manager. This report will include:

A. Detailed pesticide usage data. See page 23
B. The reduction in pesticide use and how well the target of a specific pesticide use was reached.
C. Discussions of methods being used to reduce pesticide usage by City departments
D. An update of the IPM Plan.

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

City of Menlo Park

Fire Hydrants & Services

Integrated Pest Management Plan

February 1998

Persons Authorized to Perform Pest Control Activities

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

Weeds Around Fire Hydrants in undeveloped areas of Menlo Park:

Location/Host	Action Threshold	Action
The area surrounding a fire hydrant that is: 1. 3' from the fire hydrant 2. Between the fire hydrant and the street	50% of the area covered with weeds that are 1' or more in height	Spray the area with Roundup in accordance with the current Pest Control Recommendations or mechanically remove the weeds

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

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

INTEGRATED PEST MANAGEMENT PLAN FOR BUILDINGS

TABLE OF CONTENTS

PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES:

The City uses contractors to apply pesticides for the control of pests in buildings. The contractors must be licensed by the State of California as Pest Control Operators. State law requires that employees of these companies be properly trained in each pesticide that they are to mix or apply.
City employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use.

GENERAL PRINCIPLES:

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

1. **Exclusion:**
   Crack and crevices that pests can enter should be caulked or repaired. Window screens should be kept in good condition to keep out flying insects. These insects can be pests themselves, but they also provide food for spiders.
   Pests can be unknowingly be brought into buildings by people. Potted plants, cut flowers, and other [such] material should be inspected for insects or spiders.

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

ARACHNIDS

Black Widow Spiders

Location/Host	Action Threshold	Action
Inside buildings	Whenever black widow spider are identified	Apply an acaricide to the spider or its web.

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

Other Spiders

Location/Host	Action Threshold	Action
Inside buildings	Whenever spiders or webs are observed	Vacuum the spider and its web

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

INSECTS
Argentine Ants

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

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

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

Cockroaches

Location/Host	Action Threshold	Action
Food preparation and Storage Areas	2 Cockroaches in any sticky trap	Use insecticide bait or treat with an insecticide
Other Areas	5 Cockroaches in any sticky trap	Use insecticide bait or treat with insecticide

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

Fleas

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

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

Termites

Location/Host	Action Threshold	Action
Wooden parts of buildings	When evidence of termite activity is observed	Replace damaged wood and treat with an insecticide

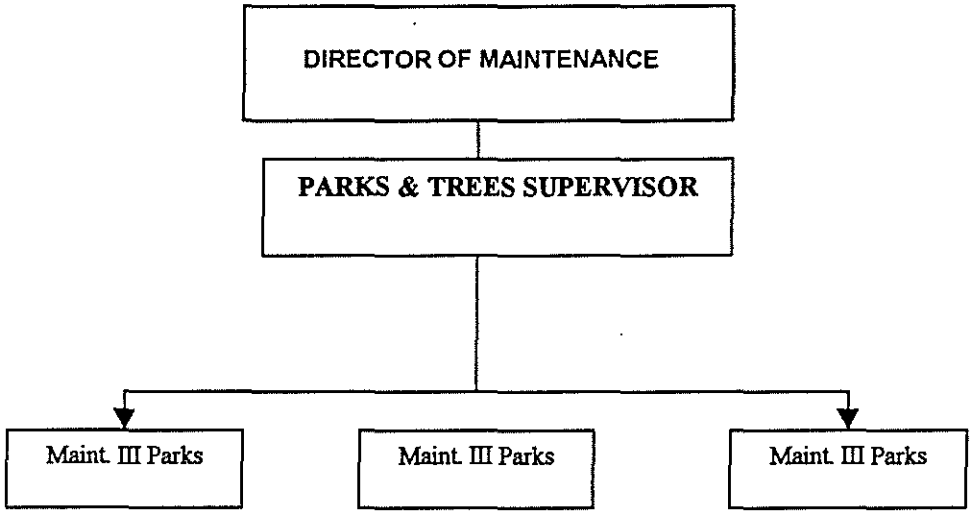
Rats and Mice
VERTEBRATES

Location/Host	Action Threshold	Action
Inside buildings	Whenever evidence of rats or mice is observed	Put out bait stations in the affected areas

INTEGRATED PEST MANAGEMENT PLAN FOR PARKS, MEDIAN STRIPS AND OTHER OUTDOOR FACILITIES

TABLE OF CONTENTS

IMPLEMENTATION STRUCTURE



PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES

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

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

For pest control measures that take place in parks, golf courses, median strips, right-of-ways and any other area that is considered an agricultural use by the State of California, a Pest Control Recommendation is required. If this Recommendation is not in effect for the planned method of control, a new Recommendation must be acquired from the Parks and Trees Supervisor in charge of Integrated Pest Management.

Broadleaf Weeds in Turf

Location/Host	Action Threshold	Action
Athletic Fields	Weeds cover 10% of the green	Spray the field with a selective herbicide in accordance with the current Pest Control Recommendation
Newly Established Turf	Weeds cover 7% of the green	Spray the turf with a selective herbicide in accordance with the current Pest Control Recommendation
Other Turf	Weeds cover 25% of the green	Spray the turf with a selective herbicide in accordance with the current Pest Control Recommendation

Weeds in Mulched Bare Areas

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

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

Weeds in Unmulched Bare Areas

Location/Host	Action Threshold	Action
Median strips and other areas kept bare of vegetation	Fall and Spring: Weeds cover 1% of the surface of the ground	Spray the area with a preemergent herbicide in accordance with the current Pest Control Recommendation
	Weeds cover 5% of the surface of the ground	Spray the weeds with Roundup in accordance with the current Pest Control Recommendation, or mechanically remove weeds.

Weeds in median strips and other areas that are devoid of desirable vegetation need to be kept relatively free of weeds. Weeds contribute to the impression that the area is unkempt which is not in accordance with the city's policy of maintaining a clean and aesthetically pleasing city.
There are some areas that are not currently mulched but could be. These areas should be mulched as time and resources permit. Mulching helps to keep weed seeds from germinating, thus reducing the need for pesticides.

Turf Edges

Location/Host	Action Threshold	Action
Turf edges		
Edges that can be edged with a mechanical edger	Grass is growing from [out beyond?] edge by 1"	Use a mechanical edger to maintain the edge
Edges that cannot be edged with a mechanical edger.	Grass is growing out from edge by 3"	Spray the encroaching grass with Roundup in accord-ance with the current Pest Control Recommendation or remove by mechanical means

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

Weeds Around Sprinkler Heads

Location/Host	Action Threshold	Action
3" band around irrigation heads	Weeds (including grass) growing beyond edge at least 1" or interfering with the sprinkler.	Spray the 3" band with Roundup in accordance with the current Pest Control Recommendation, or remove by mechanical means

Weeds (including grass) are a constant problem around sprinkler heads. They interfere with the proper operation of the heads by not allowing the heads to pop up, the operating mechanism is stopped from moving, or the stream of water is obstructed. This results in the inadequate watering of the turf.

To combat this problem a 2" -3" band around sprinkler heads s kept free of weeds and encroaching grass.

Weeds in Paths and Roads

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

ARACHNIDS

Mites

Location/Host	Action Threshold	Action
Parks	Spring and early summer:	Spray in accordance with the current Pest Control Recommendation

INSECTS

Hornets and Wasps

Location/Host	Action Threshold	Action
All areas maintained by the Parks Division	Whenever a nest is observed within 10' of the ground	Destroy the nest by mechanical means or with a pesticide in accordance with the current Pest Control Recommendation
	Whenever a nest is observed on a building	Destroy the nest by mechanical means or with a pesticide in accordance with the current Pest Control Recommendation

Bees

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

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

Sucking Insects

Location/Host	Action Threshold	Action
Parks	25% of foliage with symptoms from sucking insects or mites	Use a pesticide in accordance with the current Pest Control Recommendation

VERTEBRATES

Gophers and Ground Squirrels

Location/Host	Action Threshold	Action
Trafficked areas and areas that surround them (e.g. athletic fields and lawns)	1 hole in an area of any size	Use poison bait or traps in accordance with the current Pest Control Recommendation

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

RATS AND MICE

Location	Action Threshold	Action
All outdoor areas maintained by the Office of Parks and Recreation	Whenever a rat or mouse is observed	Use poison bait or traps in accordance with the current Pest Control Recommendation

PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES

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

SHARON PARK LAKE AND BURGESS LAKE

LOCATION/HOST	ACTION THRESHOLD	ACTION
Shallow water shelf around Lakes	When algae has grown to the extent that it is ready to mat up	Treat the algae with an algaecide and/or mechanically remove the algae

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

SAN MATEO COUNTYWIDE
Water Pollution
Prevention Program
Clean Water. Healthy Community.

San Mateo Countywide Water Pollution Prevention Program
Model Integrated Pest Management (IPM) Policy Template

GOAL

The [*City/County of* ____] seeks to protect the health and safety of its employees and the general public, the environment and water quality, as well as to provide sustainable solutions for pest control through the reduced use of pesticides on property including buildings owned or managed by the City/County by applying Integrated Pesticide Management principles and techniques. The municipal regional stormwater permit requires that the [*City/County of____]* minimize reliance on pesticides that threaten water quality.

REQUIRED USE OF INTEGRATED PEST MANAGEMENT

Employees implementing pest management controls will use Integrated Pest Management (IPM) techniques that emphasize non-pesticide alternatives. Pesticides will only be used after careful consideration of non-chemical alternatives and then the least toxic chemicals that are effective shall be used. Pest control contractors hired by the [City/County] are required to implement IPM to control pests. This will be achieved by hiring only IPM-certified pest control contractors or by including contract specifications requiring contractors to implement IPM methods.

The [City/County] will establish written standard operating procedures for pesticide use to ensure implementation of this IPM policy and to require municipal employees and pest control contractors to comply with the standard operating procedures.

The [*City/County*] will track employee and contractor pesticide use and prepare an annual report summarizing pesticide use and evaluating pest control activities performed consistent with the municipal regional stormwater permit's requirements.

The [*City/County*] will review its purchasing procedures, contracts or service agreements with pest control contractors and employee training practices to determine what changes, if any, need to be made to support the implementation of this IPM Policy.

The [*City/County*] will perform educational outreach and/or support Countywide or regional efforts to educate residential and commercial pesticide users on a) goals and techniques of IPM, and b) pesticide related water quality issues consistent with the municipal regional stormwater permit's requirements.

The IPM-based hierarchical decision making process that will be used to control pests will include the following:

1. Based on field observations evaluate locations and sites where pest problems commonly occur to determine pest population, size, occurrence, and natural enemy population, if present. Identify conditions that contribute to the development of pest populations, and decisions and practices that could be employed to manage pest populations

2. Design, construct, and maintain landscapes and buildings to reduce and eliminate pest habitats;
3. Modify management practices including watering, mulching, waste management, and food storage to discourage the development of pest population;
4. Modify pest ecosystems to reduce food, water sources, and harborage;
5. Prioritize the use of physical controls such as mowing weeds, using traps, and installing barriers;
6. Use biological controls to introduce or enhance a pests' natural enemies;
7. When pest populations reach treatment thresholds (based on how much biological, aesthetic, economic or other damage is tolerable) non-pesticide management activities will be evaluated before considering the use of pesticides;
8. When pesticides are necessary, select reduced risk pesticides and use the minimum amounts needed to be effective;
9. Apply pesticides at the most effective treatment time, based on pest biology, monitoring, and other variables, such as weather, seasonal changes in wildlife use, and local conditions; and
10. Whenever possible, use pesticide application methods, such as containerized baits, that minimize opportunities for mobilization of the pesticide in stormwater runoff.

Departments performing pest management activities will identify an IPM coordinator who is responsible for assisting staff with implementation of this IPM policy.

BACKGROUND

Pesticides are defined as: any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. Pests can be insects, rodents and other animals, unwanted plants (weeds), bacteria or fungi. The term pesticide applies to herbicides, fungicides, insecticides, rodenticides, molluscicides and other substances used to control pests.

Integrated Pest Management (IPM) is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and nontarget organisms, and the environment.

IPM techniques could include biological controls (e.g., ladybugs and other natural enemies or predators); physical or mechanical controls (e.g., hand labor or mowing, caulking entry points to buildings); cultural controls (e.g., mulching, alternative plant type selection, and enhanced cleaning and containment of food sources in buildings); and reduced risk chemical controls (e.g., soaps or oils).

[*City/County*] owned or managed property/facility includes but is not limited to parks and open space, golf courses, roadsides, landscaped medians, flood control channels and other outdoor areas, as well as municipal buildings and structures.

City of Menlo Park

City Manager Policy

Department City Manager	Page 1 of 4	Effective Date
Subject DRAFT INTEGRATED PEST MANAGEMENT POLICY	Approved by Department Head City Manager	Procedure #

GOAL

The City of Menlo Park seeks to protect the health and safety of its employees and the general public, the environment and water quality, as well as to provide sustainable solutions for pest control through the reduced use of pesticides on City property by applying Integrated Pesticide Management principles and techniques. The municipal regional stormwater permit requires that the City of Menlo Park minimize reliance on pesticides that may threaten water quality.

City of Menlo Park owned or managed property/facilities may include but is not limited to: parks and open space, golf courses, roadsides, landscaped medians, flood control channels and other outdoor areas, as well as municipal buildings and structures.

BACKGROUND

Integrated Pest Management (IPM) is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of pest-resistant varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and nontarget organisms, and the environment. (Source: University of California State-wide Integrated Pest Management Project)

City of Menlo Park employees implementing pest management controls will use Integrated Pest Management (IPM) techniques that emphasize non-pesticide alternatives. The City of Menlo Park hereby establishes written standard operating procedures as described in this policy for pesticide use to ensure implementation of IPM and to require municipal employees and pest control contractors to comply with the standard operating procedures.

TRAINING AND OUTREACH

City personnel who apply pesticides or supervise and provide advice about pesticide application will be trained as mandated by State and Federal regulations on recommended IPM strategies and techniques, as well as pollution prevention practices. City contractors will also be required to complete training regarding the concepts that are included in this Policy.

The City of Menlo Park will perform educational outreach and/or support Countywide or regional efforts to educate residential and commercial pesticide users on a) goals and techniques of IPM, and b) pesticide related water quality issues consistent with the municipal regional stormwater permit's requirements.

THE IPM-BASED HIERARCHICAL DECISION MAKING PROCESS

The City, in carrying out its operations, shall assume pesticides are potentially hazardous to human and environmental health. City departments shall give preference to reasonably available nonpesticide alternatives when considering the use of pesticides on City property. For all pest problems on City property, City staff and City contractors shall follow the IPM approach outlined below, only proceeding to the next step if prior steps have been exhausted.

1) Based on field observations, evaluate locations and sites where pest problems commonly occur to determine pest population, size, occurrence, and natural enemy population, if present. Identify conditions that contribute to the development of pest populations, and decisions and practices that could be employed to manage pest populations;
2) Design, construct, and maintain landscapes and buildings to reduce and eliminate pest habitats;
3) Modify management practices, including watering, mulching, waste management, and food storage, to discourage the development of pest population;
4) Modify pest ecosystems to reduce food, water sources, and harborage;
5) Prioritize the use of physical controls such as mowing weeds, using traps, and installing barriers;
6) Use biological controls to introduce or enhance a pests' natural enemies;
7) When pest populations reach treatment thresholds (based on how much biological, aesthetic, economic or other damage is tolerable) non-pesticide management activities will be evaluated before considering the use of pesticides;
8) When pesticides are necessary, select reduced-risk pesticides and use only the minimum amounts needed to be effective;
9) Whenever possible, use pesticide application methods, such as containerized baits, that minimize opportunities for mobilization of the pesticide in stormwater runoff; and
10) Apply pesticides at the most effective treatment time of day and seasons, based on pest biology, monitoring, and other variables, such as weather, seasonal changes in wildlife use, and local conditions.

PESTICIDE USE AND TRACKING

Pesticides will only be used after careful consideration of non-chemical alternatives, and then the least toxic chemicals that are effective shall be used. Pest control contractors hired by the City of Menlo Park are required to implement IPM to control pests. This will be achieved by hiring only IPM-certified pest control contractors or by including contract specifications requiring contractors implement IPM methods.

Appropriate City departments will continue to track pesticide use for reporting purposes. City contractors will also be required to track pesticide use and report that data to the City annually. All City contractors must notify City staff, in writing, at least 24 hours in advance of any pesticide use. City-wide pesticide use data will be reported annually to the Regional Water Quality Control Board, as required in the City's NPDES Storm Water Discharge Permit. The annual report, including the pesticide use data, will be public record.

NOTICE OF PESTICIDE USE

City of Menlo Park employees and City contractors that apply any pesticide shall comply with the following notification procedures:

1) Notification signs shall be posted at least 24 hours before application of any pesticide product and remain posted at least 24 hours after application of pesticide unless otherwise stated on pesticide product label.
2) Signs shall be posted at every entry point to the area where the pesticide is applied if the pesticide is applied in an enclosed area, and in highly visible locations around the perimeter of the area where the pesticide is applied if the pesticide is applied in an open area.
3) Signs shall contain the name and active ingredient of the pesticide product, the target pest, the date of pesticide use, the signal word indicating the toxicity category of the pesticide product, the date for re-entry, and the name and contact number of the City department responsible for the application.
4) Notifications signs shall not be required to post signs in right-of-way locations that the general public does not use for recreation purposes.

Notification requirements may be waived by the Public Works Director or designee in cases of emergency situations where pest outbreak poses an immediate threat to public health or significant economic loss.

For more information please contact:
City of Menlo Park
701 Laurel Street
Menlo Park, CA 94025
Phone: (650) 330-6780
Fax: (650) 327-1953

USE OF TOXICITY CATEGORY III OR IV PESTICIDE PRODUCTS

City of Menlo Park employees and City contractors will use the least toxic chemical pesticides that is effective. Those classified as Toxicity Category IV or III by the United States Environmental Protection Agency shall be applied only after the careful consideration of non-chemical alternatives. Currently Category IV pesticides are not required to include a signal word on the label. Toxicity Category III pesticides include the signal word "CAUTION" on the product label.

Due to community concerns, the use of the Toxicity Category III pesticide Roundup® is banned on all City maintained properties.

LIMITED USE OF TOXICITY CATEGORY II PESTICIDE PRODUCTS:

City of Menlo Park employees and City contractors will be limited in their use of chemical pesticides that are classified as Toxicity Category II by the United States Environmental Protection Agency. Category II pesticides will only be used in situations where a Pest Control Advisor recommends the use of these pesticides after Category IV and III alternatives have been exhausted or where needed to prevent a pest outbreak that poses an immediate threat to public health or significant economic loss. Toxicity Category II pesticides include the signal word "WARNING" on the product label.

BAN ON USE OF TOXICITY CATEGORY I PESTICIDE PRODUCTS

City of Menlo Park employees and City contractors are prohibited from using chemical pesticides that are classified as Toxicity Category I by the United States Environmental Protection Agency. Exemptions to this ban may be granted in emergency cases where a pest outbreak poses an immediate threat to public health or significant economic loss will result if the banned pesticide is not applied. Exemptions will only be granted in situations where a Pest Control Advisor recommends the use of such a pesticide, and the Category I pesticide application is approved by the Public Works Director or designee. Toxicity Category I pesticides include the signal word "DANGER" on the product label.

BAN ON USE OF PESTICIDES NEAR SENSITIVE RECEPTORS

City of Menlo Park employees and City contractors are prohibited from applying any pesticides within a 100 foot range of the following:

- Waterways
- Hospitals
- Schools
- Daycare facilities
- Elderly housing
- Convalescent facilities
- Playgrounds
- Picnic Areas
- Dog Parks

ANNUAL EVALUATION OF POLICY

The Public Works Superintendent or designee shall provide an annual report to the Public Works Director including evaluating implementation of the policy and a summary of any proposed modifications to the City's pesticide list and recommendations for amendments needed for effective implementation of the IPM policy.

DEFINITIONS

Whenever used in this Policy, the following terms shall have the meanings set forth below:

1. 'Contractor' means a person, firm, corporation or other entity, including a governmental entity, that enters into a contract with the City to provide landscape maintenance or related activities.

2. 'Integrated Pest Management' means a decision-making process for managing pests that uses monitoring to determine pest injury levels and combines biological, cultural, physical and chemical tools to minimize health,

environmental and financial risk. The method uses knowledge of the target pests' life cycles, environmental requirements and natural enemies to facilitate natural control of the pest. The method incorporates natural methods of pest control, then proceeds to the least-toxic pesticides if the natural methods are not effective.

3. 'NPDES Permit' is a regulatory document issued by the State of California to control the discharge of pollutants into waterways. NPDES is an acronym for National Pollutant Discharge Elimination System.

4. 'Pest Control Advisor' means someone who is licensed by the California Department of Pesticide Regulations in accordance with California Code of Regulations, Title 3, Article 5. Only a licensed Pest Control Advisor who is registered with the County Agriculture Commissioner may provide written pest control recommendations for area such as parks, golf courses and public right-of-ways.

5. 'Pesticide' means pesticide as defined in Section 12753 of the California Food and Agriculture Code, including, but not limited to, herbicides, insecticides, and fungicides. Pesticides are defined as: any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. Pests can be insects, rodents and other animals, unwanted plants (weeds), bacteria or fungi. The term pesticide applies to herbicides, fungicides, insecticides, rodenticides, molluscicides and other substances used to control pests.

6. 'Signal Words' are found on pesticide product labels, and they describe the acute (short-term) toxicity of the formulated pesticide product. The signal word can be either: DANGER, WARNING, or CAUTION. Products with the DANGER signal word are the most toxic. Products with the signal word CAUTION are lower in toxicity.

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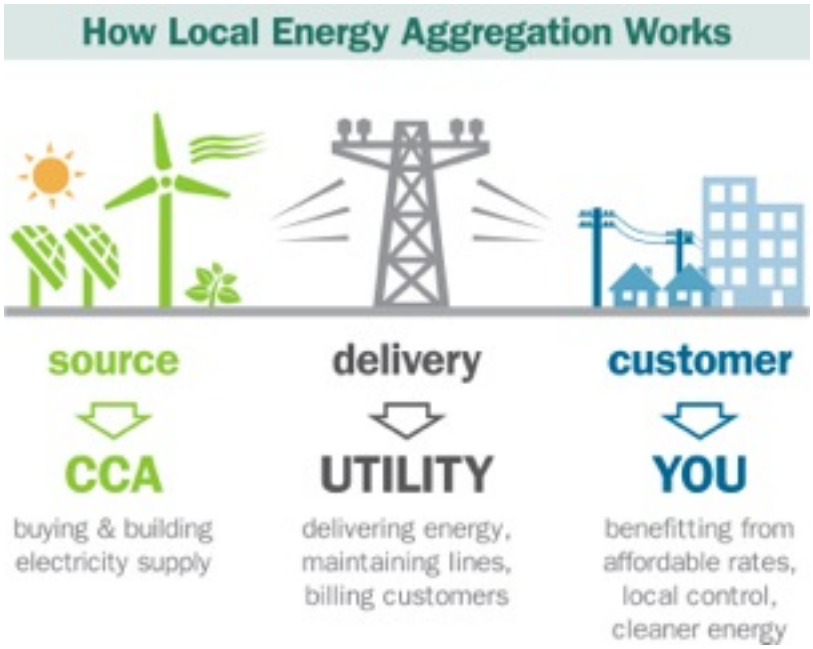
CCAs & California Clean Power INTERNAL NOTES

What are CCAs?

CCA stands for **Community Choice Aggregation**, a power arrangement allowing a city or county to take over the purchasing of power, leaving grid management, billing, maintenance and repair to the utility. Roughly 5 percent of people in the U.S. receive power through a CCA.[1]



Source: Alameda County Community Development Agency
http://www.acgov.org/cda/planning/cca/faqs.htm#3

What are the benefits of CCAs?

CCAs can provide:

- Competitive, often cheaper electricity rates;
- Consumer energy choice;
- Significant reductions in Greenhouse Gas emissions;
- New renewable power development, local and in-State; and
- New jobs and energy programs for the community.[2]

Where are CCAs used in California?

Currently there are three CCAs: Marin Clean Energy, Sonoma Clean Power and Lancaster Choice Energy, all of which provide a higher rate of renewable power (from 30% to 50%) at a slightly lower cost relative to the default utility.[3] Many other cities and counties are seriously investigating or have demonstrated intent to form a CCA: San Francisco, San Jose, San Diego, San Louis Obispo, San Mateo County, Alameda County, Mendocino County, Humboldt County, and others.

Could a CCA help Menlo Park meet its Climate Action Plan Goals?
Yes. If Menlo Park selects a CCA that offers 100% renewable power as the base choice, that alone will ensure that the City meets its current commitment to reduce GHGs by 27% by 2020.

Are some environmentalists concerned about CCAs?
Some large green groups have held back support for CCAs for the following reasons:

- They do not see them as a critical part of the larger solution for climate (e.g. statewide RPS targets already in place).
- CCAs don't necessarily guarantee more renewables or lower GHGs, although the current CCAs are performing better than the default utility and all CCAs are bound to the same RPS standards enforced throughout the state.
- Renewable Energy Credits ("RECs" e.g. from a dairy manure digester in Wisconsin) can be misleading *if* they are used. RECs do not increase actual renewable energy on the grid. On the other hand, CCAs could fund and develop new renewable energy projects, which would be significant.

Who is California Clean Power?[4]
CA Clean Power is a private company that offers a full-service, no-cost CCA that can be implemented in 6-8 months. They manage the entire process of setting up and managing the CCA[5], without any investment needed from the city or county.

Can CA Clean Power deliver 100% Renewable Power at no additional cost?
Yes, current estimates in a draft contract for consideration offer 100% renewable power[6] to Menlo Park, returning $500,000 to the city for local renewable energy projects.

Isn't this too good to be true?
No, CA Clean Power is able to deliver renewable power more cheaply because:

- They operate lean, without all the staff and overhead of a large utility;
- The private structure of the company means they can enter the wholesale power market without leveraging tax-payer dollars, and economizing operations (e.g. there is no large loan to service).

Would Menlo Park lose access to the many energy efficiency programs?
No, the City and all residents and businesses would still have full access to all the County programs, funds and services related to energy efficiency.

How is CA Clean Power financed?
It was incorporated in October 2014 by William Gallaher, Chair of First Bank.[7]
The company currently has $15 million available to purchase enough renewable energy for up to 200,000 people. They are becoming a public benefit corporation.

Does CA Clean Power have the expertise that it takes to run a CCA?
Yes, the company is led by veterans of the utility field. Staff are experts who have worked at PG&E form many years, have experience working for community choice programs, government, technology, and most importantly, deep expertise in energy procurement. They are also seasoned within the policy and legal framework.

- CEO Peter Rumble has 15 years of experience in California government including oversight of implementation of Sonoma Clean Power while he was Sonoma County Deputy Administrator.
- General Counsel, Kelly Foley has more than 20 years of California energy utility and public agency experience; she helped launch Sonoma Clean Power.
- Nathanael Miksis, Shehzad Wadalawala , and Simon Loos are experts at energy procurement with experience spanning PG&E, Sonoma Clean Power, Marin Clean Power and the University of California's power system
- Other staff and advisors hail from Solar City, Apple, California Coastal Conservancy, First Community Bank and represent a wide range of experience including, legal, legislative, communications and finance.
- California Clean Power is in the process of becoming a Public Benefit Corporation.

Does CA Clean Power have any contracts with other cities or counties yet?
They are in the process of performing feasibility studies for Mendocino County, Arcata, and several others;[8] and are in discussions with half a dozen more communities.

Are there Other Providers of CCAs?
Several other independent CCAs may be available through the following companies but these do not provide full financing up front:

Community Choice Partners: http://www.communitychoicepartners.com/#home-2
Good Energy: http://www.goodenergy.com/

Additional Resources:
Alameda County FAQ on CCAs: http://www.acgov.org/cda/planning/cca/faqs.htm#3
San Mateo County Resources: http://green.smcgov.org/cca-resources
Marin Clean Energy: www.mcecleanenergy.com
Sonoma Clean Power: www.sonomacleanpower.org.
For more general information about CCAs: www.leanenergyus.org.

[1] Source: Information provided by San Mateo County, http://green.smcgov.org/cca-resources
[2] Ibid.
[3] Lancaster Choice Energy will offer at least 30% renewable power; specific details remain to be worked out. http://www.lancasterchoiceenergy.com/index.php
[4] http://cacleanpower.com
[5] This includes a feasibility study, managing regulatory filings and utility cooperation, power purchasing, legal support, raising public awareness, providing customer service and more. In addition, funds go back to the city annually to support a part time staff position to interface between CA Clean Power and the City.
[6] This is all CARB-compliant in state renewables except for a small amount of potential hydro from the Pacific Northwest.
[7] California Business Search, http://kepler.sos.ca.gov; Mr. Gallaher is the Chairman of the Board of First Community Bank (which granted Marin Clean Power a loan to start with). He was a successful homebuilder in Sonoma County, having built more than 500 homes.
http://ecoleader.org/drupal/bio/219/william-p-gallaher
[8] http://cacleanpower.com/news/;
http://www.co.mendocino.ca.us/bos/meetings/MG39851/AS39893/AS39896/AS39906/AI40323/DO40343/1.PDF

100% Clean Power for Menlo Park: We Can Get There!

Menlo Park is making progress supporting renewable energy and saving energy. Menlo Park families use 30 percent less energy compared to the average household in the County.[1] Solar panels are becoming increasingly common in Menlo Park, covering the rooftops of roughly 250 homes and buildings and generating more than 6 Megawatts of power.[2]

Electricity accounts for roughly one quarter of the greenhouse gas (GHG) emissions in Menlo Park,[3] so it's important to maximize renewable power use in this large sector. A number of options to increase the amount of clean renewable power are now available to residents and businesses in Menlo Park, including PG&E's new Green Option, and a few different alternatives of Community Choice power. The best option will optimize these key elements:

1) Zero Carbon: Fastest way possible to net zero CO_2 power
2) Additional Strengths: Ease of Administration, equity, efficiency, reliability
3) Widespread Public Support & Public Benefits

How do the clean power options compare for Menlo Park?

Key Attributes:	PG&E Green	San Mateo County JPA	Menlo Park CCA	Joining Palo Alto
Zero Carbon[a]	2	2	3	3
Ease of Administration[b]	3	2	2.5	2.5
Public Benefit[c]	1	2	3	1
Total Benefits:	6	6	8.5	6.5

Note: Each option is subjectively assessed up to 3 points per attribute. ***See below for more information.***
JPA = Joint Power's Authority
CCA = Community Choice Aggregation (*see the following page for more information*)
Zero Carbon = Zero GHG and zero Carbon Dioxide equivalents for the power sector
[a] Programs earning 2 points are expected to increase renewable power a moderate amount; programs earning 3 points are expected to reach 100% renewable power for at least 80% of power used.
[b] Programs earning 2 points require participation on a JPA board and city staffing; programs earning a 2.5 require part time city staff; programs earning a 3 do not require additional activity from the City.
[c] Public benefit includes funding returning to the city to support local renewable development & associated local jobs (2 points); and progress towards Climate Action Plan goals (1 point).

PG&E Green Option[4]

PG&E customers will soon be able to sign up ("opt-in") to get 50% or 100% of their electricity from solar power for a monthly surcharge. Enrolling in the community solar program is estimated to cost an additional 2 to 3 cents per kilowatt-hour. PG&E also plans to offer a more traditional community solar option where customers will be able to contract directly with a third-party solar developer for a share of the output of a local solar project.

One challenge with "opt-in" programs like this, where customers have to actively sign up and pay a premium, usually have very low participation rates.[5] For example, a survey of opt-in Green Pricing Programs among 31 utilities in 24 different states, found low participation rates around 1- 2 percent. [6]

Home- and building-owners can also install ***on-site renewables*** such as solar panels and connect to the power grid to freely access any additional power needed (for example, at night time); and sell back to the utility excess power that they generate on site and cannot use ("net metering"). ***On site renewables are always a good investment no matter which service discussed here is selected***.[7]

Jargon Alert: What's a CCA?

CCA stands for **Community Choice Aggregation**, a power arrangement allowing a city or county to take over the purchasing of power, leaving grid management, billing, maintenance and repair to the utility. Roughly 5 percent of people in the U.S. receive power through a CCA. CCAs can provide significant benefits:

- Competitive, often cheaper electricity rates;
- Consumer energy choice;
- Significant reductions in Greenhouse Gas emissions;
- New renewable power development, local and in-State; and
- New jobs and energy programs for the community.

Current CCAs in California, Marin Clean Energy, Sonoma Clean Power and Lancaster Choice Energy, provide a higher rate of renewable power (from 30% to 50%) at a slightly lower cost relative to the default utility, and support local renewables.

Source: Information provided by San Mateo County, http://green.smcgov.org/cca-resources

San Mateo County CCA[8]

In February 2015, San Mateo County approved funding to conduct a feasibility study for a CCA (*See What's a CCA? sidebar*).[9] If San Mateo County moves forward to form a CCA as planned for mid-2016 with a start up cost of $1.5 million, Menlo Park will have the option to join through a Joint Powers Authority (JPA).[10] Although it is too early to determine the details of what the County program will look like, it is likely to be similar to the three current CCAs in California.[11]

Menlo Park CCA

The City of Menlo Park could opt to form its own CCA, retaining full authority over the level of renewable power purchased and program structure. California Clean Power is a privately held company that offers "turn key" CCA services for cities. CA Clean Power uses private investments to procure power, offering 100 percent California renewables at no additional cost compared with current rates.[12] The rates are very low due to minimal overhead and private investment that averts the need for municipal loans and associated debt service.

Palo Alto Municipal Power

It is *unlikely but possible* that Menlo Park could join the City of Palo Alto utility to receive power through various mechanisms under exploration.[13] Palo Alto's utility provides 100 percent carbon neutral electricity, in part through the use of offsets, or "RECs" (Renewable Energy Credits).[14] It is slated to become 100% renewable without the use of RECs by 2017 to 2020.[15]

Renewable power has become much more affordable over recent years. The tables have turned: States generating more electricity from renewables often experienced average retail electricity prices well below states producing less electricity from renewables.[16] A number of cities to date have committed to 100 percent renewable power including Burlington, Vermont and Georgetown, Texas in addition to Palo Alto and many others.[17]

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[1] Average electricity used by Menlo Park households in Summer and Winter compared to San Mateo county averages; http://www.smcenergywatch.com/pr_Menlo_Park.html

[2] Statistics for Menlo Park can be downloaded from the CA Solar Initiative; total installed = 2.5 MW http://californiasolarstatistics.ca.gov; Facebook alone generates almost 4 MW of power (not accounted for through CSI), according to a personal communication from Lauren Swezey at Facebook, 3/20/15.

[3] According to the 2013 Climate Action Plan Update, Menlo Park CO2e emissions in 2011 were 377,669 tons. Electrcity accounted for 49% of 200,638 tons CO2e emissions from the power sector (the remainder is from natural gas) according to San Mateo County Energy Watch: http://www.smcenergywatch.com/pr_Menlo_Park.html

[4] http://www.pge.com/en/about/newsroom/newsdetails/index.page?title=20120424_pge_announces_new_green_energy_program_to_give_electric_customers_more_renewable_options
Data from SMC Energy Watch Newsletter, 2/19/15; http://www.smcenergywatch.com

[5] Note that it may be possible for the City of Menlo Park to decide through a formal process to have the 100% renewable option as the default for all customers through PG&E's Green Option, though likely at a premium, which could lead to high opt-out rates. PG&E is currently evaluating whether this is possible.

[6] http://instituteforenergyresearch.org/topics/policy/green-pricing-programs/

[7] Net metering is always available whether through a regular utility or CCA.

[8] http://green.smcgov.org/press-release/san-mateo-county-board-supervisors-vote-fund-study-establish-local-renewable-energy#sthash.59pKd3MP.dpuf

[9] http://green.smcgov.org/community-choice-aggregation

[10] See SMC presentation, February 24, 2015; http://green.smcgov.org/cca-resources
Note that Menlo Park may have minimal control over the program through a large JPA.

[11] See SMC Resources and note: Lancaster Choice Energy will offer at least 30% renewable power; specific details remain to be worked out. http://www.lancasterchoiceenergy.com/index.php

[12] Personal Communication with Kelly Foley and Peter Rumble , CA Clean Power, 3/10/15; http://cacleanpower.com

[13] This assessment is based on preliminary discussions with several energy experts familiar with Palo Alto utilities.

[14] http://www.epa.gov/greenpower/communities/communities/paloaltocacommunity.htm

[15] http://www.cityofpaloalto.org/gov/depts/utl/residents/resources/pcm/carbon_neutral_portfolio.asp

[16] DBL Investors, Renewable Energy Report, March 2015. http://www.dblinvestors.com/wp-content/uploads/2015/03/Pfund-Chhabra-Renewables-Are-Driving-Up-Electricity-Prices-Wait-What.pdf

[17] http://www.scientificamerican.com/article/gas-happy-texas-goes-solar/
http://cleantechnica.com/2014/09/23/100-renewable-energy-burlington-vt/
http://www.mnn.com/earth-matters/energy/stories/10-cities-aiming-for-100-percent-clean-energy
http://www.go100percent.org/cms/

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ENVIRONMENTAL QUALITY COMMISSION
DRAFT MINUTES

Regular Meeting
Wednesday, March 25, 2015 at 6:30 PM
City Administration Building
701 Laurel Street, Menlo Park, CA 94025

The meeting was called to order by Chair Scott Marshall at 6:41 pm.

ROLL CALL:

Present: Chris DeCardy, Scott Marshall (Chair), Deborah Martin, Mitchel Slomiak, Christina Smolke

Absent: Allan Bedwell (Vice Chair)

A. PUBLIC COMMENT

No Comment

B. REGULAR BUSINESS

(Chair moved items B2 and B3 before item B1)

B2. Discuss and Make a Recommendation to City Council on New State Water Mandates *(Attachment)*

ACTION: Motion and Second (Slomiak/Marshall) to have Commissioner Martin, in collaboration with Commissioners Bedwell and DeCardy, draft recommendations to City Council on the new State Water Mandates, passes (5-0-2), (Absent: Bedwell, Kuntz-Duriseti)

B3. Receive Informational Presentation on Menlo Spark

ACTION: No formal action was taken on this item. Diane Bailey, Executive Director at MenloSpark, provided the Commission with a presentation on how Menlo Park can work towards climate neutrality *(Handout)*

B1. Consider a Recommendation on a Request to Remove One Deodar Cedar, *Cedrus deodara*, Heritage Tree at 455 San Mateo Avenue *(Attachment)*

Public Comment
Mr. & Mrs. Akhtari, owners of the property where the Deodar Cedar tree is located, expressed concern regarding the tree because large heavy branches fell on their walkway and near a bedroom in early February.

ACTION: Motion and Second (Marshall/Smolke) to deny the appeal based on the Heritage Tree criteria as stated in the arborist report, passes (4-1-2) (Noes: Martin; Absent: Bedwell, Kuntz-Duriseti)

B4. Discuss Arbor Day Planting Event for April

ACTION: No formal action was taken at this time. Chair Marshall will continue this role in leading the annual tree planting event as in previous years. The Commission will continue the discussion during the next EQC meeting.

(Chair moved items B6 and B7 before item B5)

(Commissioner Kuntz-Duriseti arrives at 9:00pm)

B6. Discuss and Consider Potential Proclamations to the City Council for Exemplary Environmental Efforts in the Community

ACTION: Motion and Second (DeCardy/Slomiak) to acknowledge Jim Lewis and Susan Dunlap for their exemplary environmental efforts in restoring the Great Spirit Path at Bedwell Bayfront Park and to recognize them via proclamation to the City Council, passes (6-0-1) (Absent: Bedwell)

B7. Debrief on Joint City Council Quarterly Update Meeting *(Attachment)*

ACTION: No formal action was taken on this item. The Commission discussed the outcome of the Joint City Council meeting.

B5. Receive Update from General Plan Advisory Subcommittee *(Attachment)*

ACTION: No formal action was taken on this item. Commissioner Kuntz-Duriseti provided an update to the Commission on the GPAC. The EQC would like to reagendize the item at the next commission meeting.

B8. Approve February 25, 2015 Minutes *(Attachment)*

ACTION: Motion and Second (Slomiak/Martin) to approve March 25, 2015 minutes passes (5-0-2) (Absent: Bedwell; Abstain: Kuntz-Duriseti)

C. REPORTS AND ANNOUNCEMENTS

C1. Staff Update on Environmental Policies to be Considered by City Council

C2. Commission Subcommittee Reports and Announcements

C3. Discuss Future Agenda Items

D. ADJOURNMENT

This meeting was adjourned at 10:13pm

Meeting minutes taken by Christina Smolke, Environmental Quality Commissioner

Meeting minutes prepared by Sheena Ignacio, Environmental Programs Specialist

MENLOSPARK: ACHIEVING CLIMATE NEUTRALITY IN MENLO PARK, A TEN YEAR CHALLENGE

Environmental Quality Commission, Menlo Park, March 25, 2015

MenloSpark: A Communitywide Plan for Climate Action

Engage the community and conduct media outreach

Educate businesses and residents

Identify and organize volunteers

Connect the city with experts, other cities, and resources

Fundraise for projects and secure outside funding

Conduct a detailed technical assessment and monitor progress

Run a handful of community projects

Driven by what Menlo Park residents want...

Promotes economic vitality

Protects civic heritage

Strengthens the community

I want economic vitality and innovation in Menlo Park

We need more equitable and inclusive prosperity

We should preserve strong neighborhoods, peaceful streets, and town history

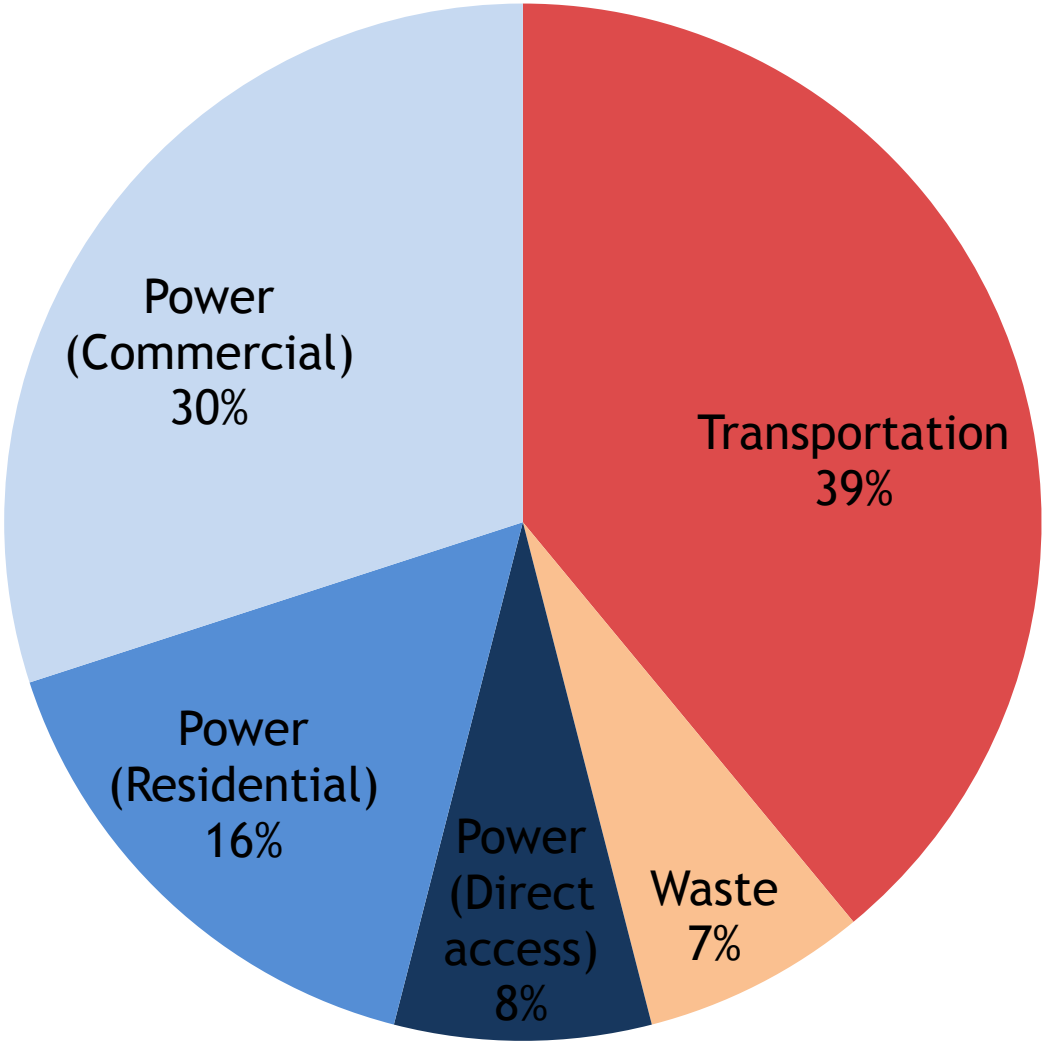
Our community deserves responsible governance and robust city services

We care about safe, smart, and healthy kids

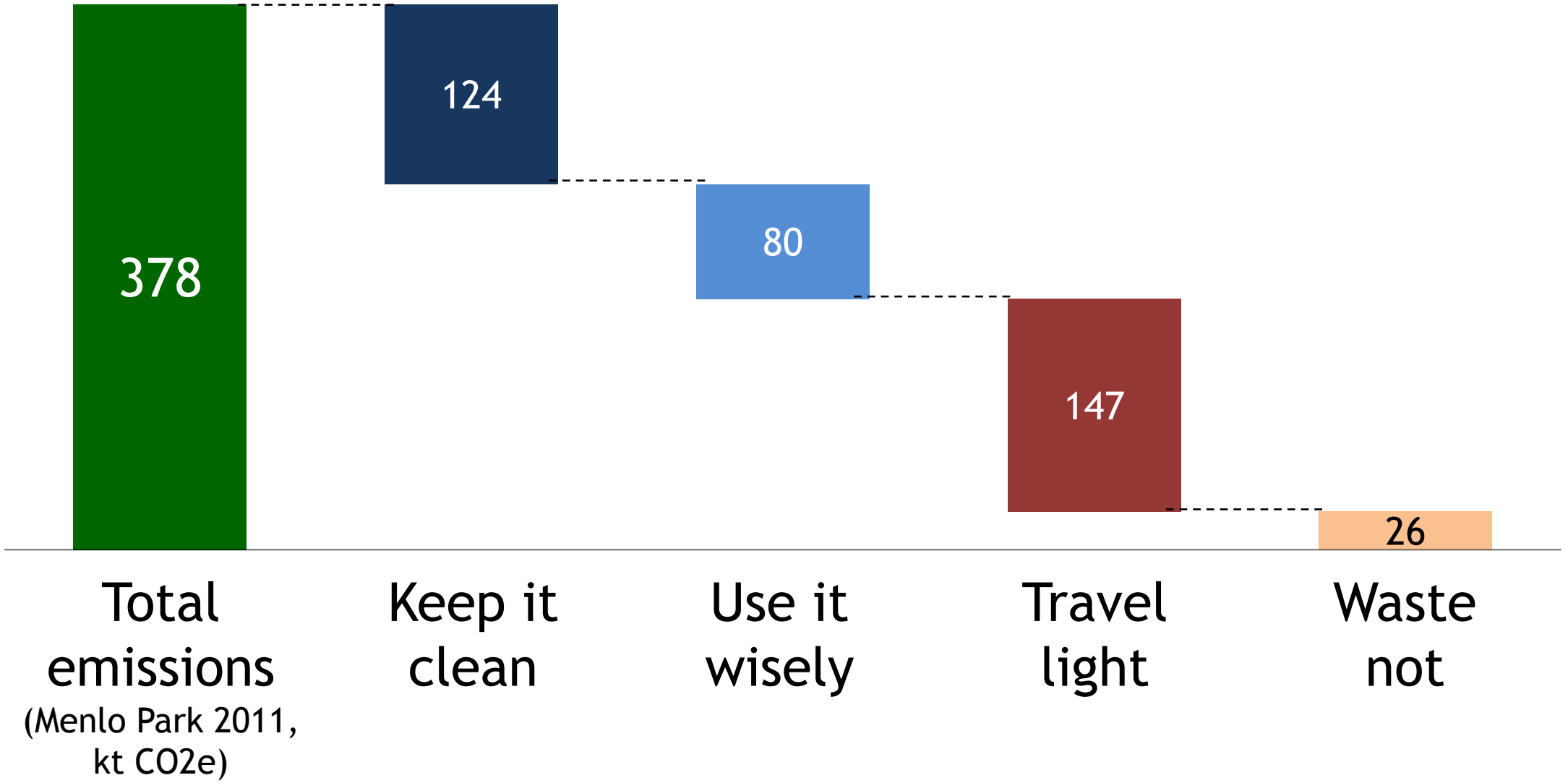
Impacts of Climate Change in Menlo Park: Taking Action Translates Into Community Benefits

Threats of climate change	Benefits of sustainable transition
• Sea level rise	• Create more vibrant communities
• Unpredictable water supply	• Generate cost savings
• Higher food, energy and fuel costs	• Attract economic growth
• Heat waves & poor air quality	• Increase civic pride
• Loss of local wildlife and nature	• Protect natural heritage

Menlo Park's emissions: 378,000 tons CO2e, 2011



Climate Neutrality is Achievable



Keep it clean

Pollution

124
kt CO2e/
year

- Utility-scale renewables
- Distributed generation
- Plug in to clean power

Savings

$80 mil
saved in 20 years by Menlo Park residents if 30% of homes purchase or lease solar

Use it wisely

Pollution

80
kt CO2e/
year

- Efficient building upgrades
- Zero net energy buildings
- Efficient heating
- Sustainable behavior

Savings

$76 mil
saved if all Menlo Park residents purchase a Nest thermostat for use over its lifetime

Travel light

Pollution

147
kt CO2e/
year

- Electric vehicles
- Commute alternatives
- Biking and walking
- Urban design

Savings

$3
mil/year
saved by
Belle Haven
residents if
they switch
to more
efficient
vehicles

Waste not

Pollution

26
kt CO2e/
year

- Reduce waste
- Capture landfill methane

Savings

$821k
/year
saved in landfill costs by matching San Francisco's landfill diversion rate

Clean up the leftovers

Pollution

Offset any remaining emissions until neutrality is reached

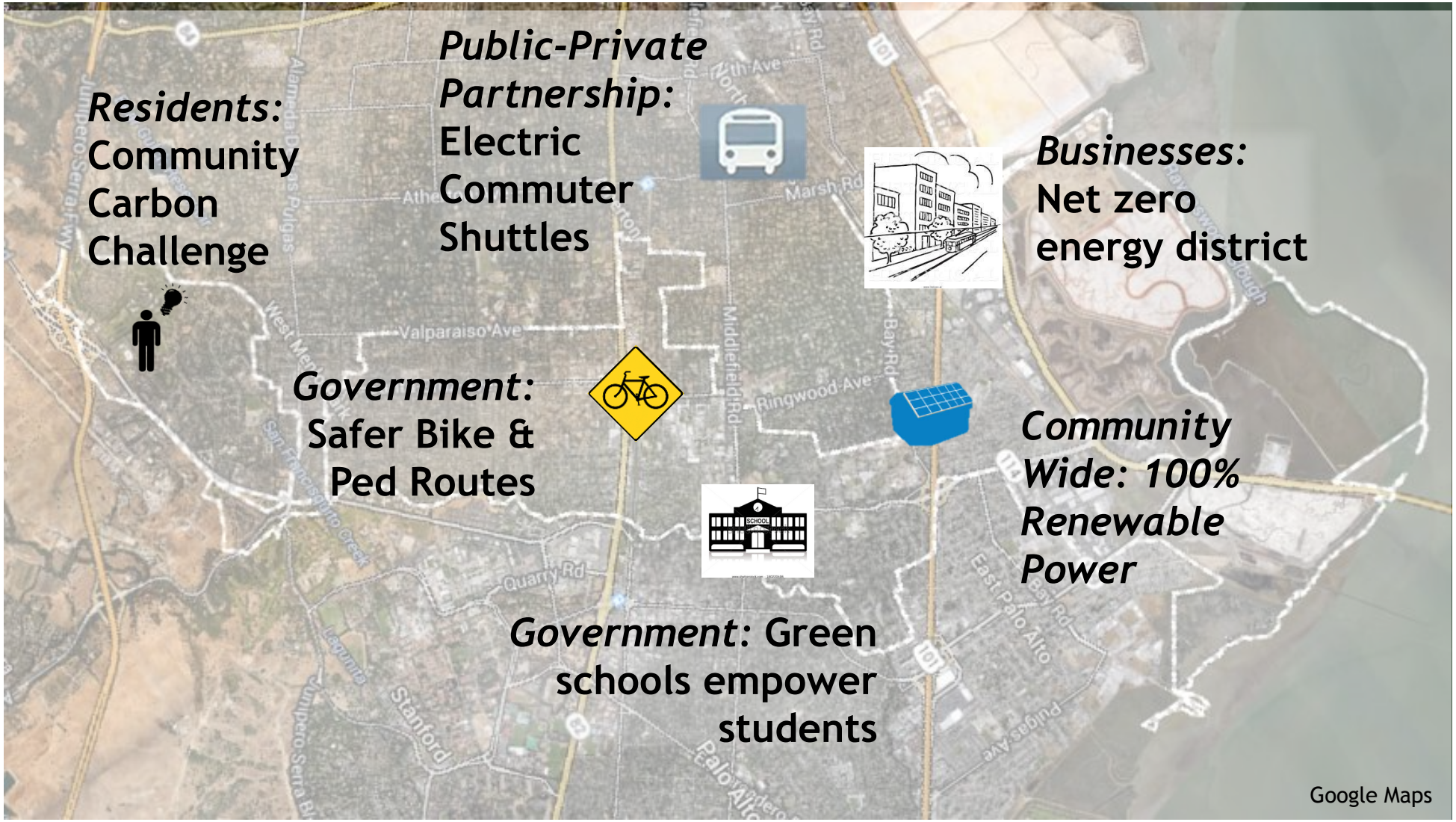
Trees and watersheds

Carbon offsets

Savings

Achieve maximum cost savings

A few signature projects can get us started



We need community support to make this happen

Residents

Businesses

CITY OF MENLO PARK

Government

Joint projects

Take an Image Walk to Imagine the Possibilities for Menlo Park

How about this?

Instead of this?

Mobility Choices

How about this?

Instead of this?

Roofs as a Resource: Solar or Green?

How about this?

Instead of this?

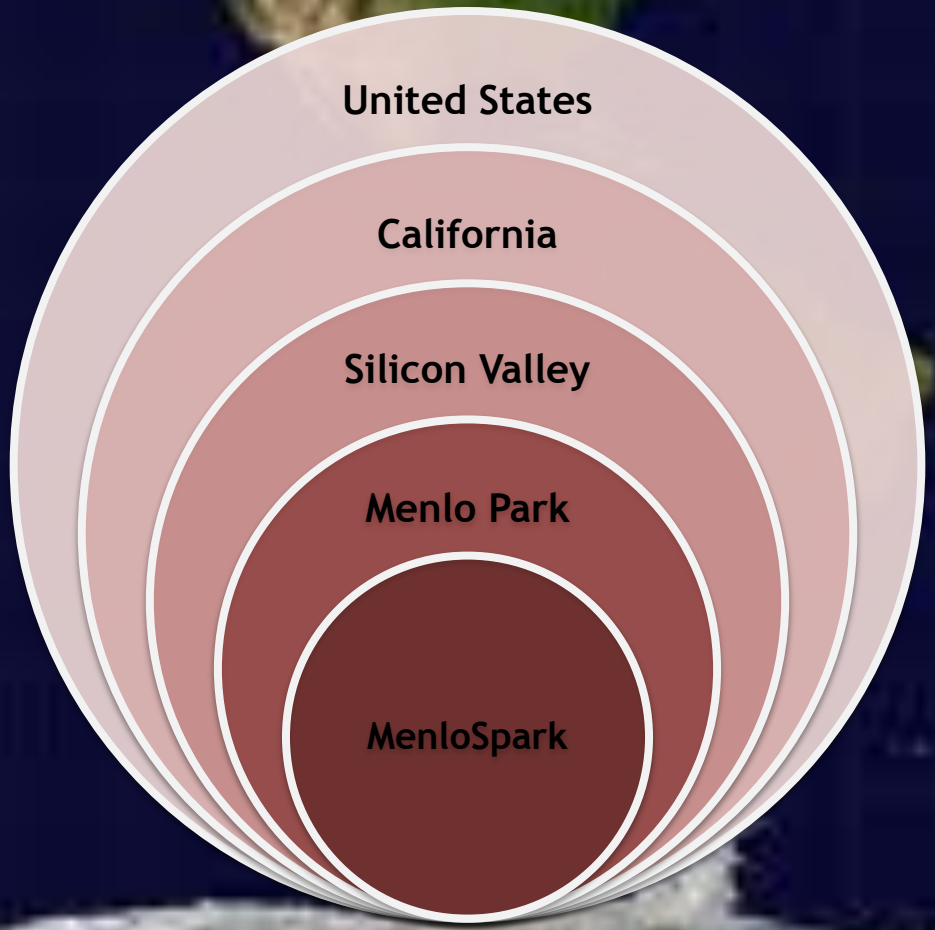
Changing Times

Main Street in Georgetown, Texas, as it may look in the not too distant future, as this town **just ditched fossil fuel power for 100% renewables.**

As Pacific islands get walloped by bigger storms & rising seas, it's a good time to take action.

Cyclone Pam hits Vanuatu, March 13, 2015

Where Does MenloSpark Fit in?



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