MINUTES
REGULAR MEETING OF THE
Urban Forest Committee

February 10, 2020

City Council Chambers
El Cerrito City Hall
10890 San Pablo Avenue
El Cerrito, CA 94530

This Meeting Place is Wheelchair Accessible

CONVENE REGULAR MEETING: Chair Torrusio called the meeting to order at
7:03 p.m.

1. ROLL CALL– Present: Chair Mary Torrusio, Vice Chair Robert Hrubes, Members
   Cathy Bleier, Yan Llinhart, Robin Mitchell.

   Absent: Council Liaison Janet Abelson
   Also present: Staff Liaison Stephen Prée; members of the public.

2. COMMENTS FROM THE PUBLIC ON NON-AGENDA ITEMS –
   - Buddy Akacic extended his appreciation of the UFC in his warm greeting to
     the committee and the attending members of the public.
   - Marlene George said that UFC Chair Mary Torrusio did an excellent job
     presenting the UFC workplan during the City Council meeting January 15.
   - Sean O’Connor asked about the best tree species for minimizing sidewalk
     damage.

3. COMMITTEE MEMBER ANNOUNCEMENTS– There were none.

4. COUNCIL / STAFF LIAISONS ANNOUNCEMENTS AND REPORTS - Staff Liaison
   Prée displayed the newly acquired Tree City USA plaque and dedicated it to the
   Urban Forest Committee.

5. PRESENTATION: WILDFIRE MITIGATION AND THE EL CERRITO URBAN
   FOREST – Vice Chair Hrubes introduced, Dr. Joe McBride, Professor Emeritus of
   Forestry U.C. Berkeley, who conveyed his findings regarding maintaining defensible
   space in the urban forests of the East Bay and El Cerrito. A discussion regarding
   management or removal of Eucalyptus trees, conversion to oak woodlands, and cost
   sharing or grant programs followed the presentation.
6. ACTION ITEMS
- Approval of the January 13, 2020 meeting minutes: Moved / Second: Hrubes / Mitchell; unanimous.

7. URBAN FOREST COMMITTEE ACTIVITIES, CALENDAR AND WORK PLAN UPDATE:
   A. Arbor Week Planning March 7-14
      - The committee agreed to organize and promote a public Tree City USA flag raising event in celebration of the City’s new designation on March 7.
      - Arbor Week events discussion: involve school children, and art teachers (Linhart); community garden tree planting; make Arbor Week planning a future agenda item to facilitate planning ahead.
   B. Volunteer tree care workshop- Prée said that details were yet to be determined as he had not heard back from the invited arborists; an ad-hoc subcommittee (Mitchell, Price) meeting will be scheduled.
   C. El Cerrito Earth Day April 18- the UFC agreed to participate in a fuel reduction activity on in the Hillside Natural Area, location TBD.

8. NEXT MONTH’S CITY COMMITTEE ATTENDANCE ASSIGNMENTS
   - Chair Torrusio will attend the EQC meeting February 11
   - Cathy Bleier will attend the PRC meeting February 26
   - Yan Linhart will attend the EQC meeting March 10
   - Robert Hrubes will attend the PRC meeting March 25

9. FUTURE AGENDA ITEMS
   - Tree care corps
   - El Cerrito Earth Day
   - Community wildfire concerns
   - Tree planting opportunities

10. ADJOURNMENT- Chair Torrusio adjourned the meeting at 9:05 p.m.

   Mary Torrusio, Chair or Robert Hrubes, Vice Chair

   This is to certify that the foregoing is a true and correct copy of the minutes of the regular Urban Forest Committee meeting of February 10, 2020 as approved by the Urban Forest Committee.

   Stephen Prée, Staff Liaison
Wildfire Mitigation and the El Cerrito Urban Forest

Joe R. McBride
Professor Emeritus
University of California

Overview

1. The fire problem
2. Wildfire mitigation
Fire in the East Bay Hills

1991 Oakland Hills Fire
Fire Hazard Zones

Factors contributing to Fire Hazard

Climate

Fuels

Topography
Characteristics of Wildland Fuels in the East Bay

<table>
<thead>
<tr>
<th>Vegetation type</th>
<th>Fuel loading (tons/acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual grassland</td>
<td>1.51</td>
</tr>
<tr>
<td>Baccharis brushland</td>
<td>18.7</td>
</tr>
<tr>
<td>Oak-bay woodland</td>
<td>3.7</td>
</tr>
<tr>
<td>Eucalyptus plantation</td>
<td>60</td>
</tr>
<tr>
<td>Conifer plantation</td>
<td>40.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vegetation type</th>
<th>Ease of ignition</th>
<th>Rate of spread (m/min)</th>
<th>Fire-line intensity (kW/m)</th>
<th>Average flame length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual grassland</td>
<td>high</td>
<td>3.8</td>
<td>66</td>
<td>0.5</td>
</tr>
<tr>
<td>Baccharis brushland</td>
<td>moderate</td>
<td>1.6</td>
<td>197</td>
<td>0.8</td>
</tr>
<tr>
<td>Oak-Bay woodland</td>
<td>low</td>
<td>0.6</td>
<td>36</td>
<td>0.4</td>
</tr>
<tr>
<td>Eucalyptus plantation</td>
<td>high</td>
<td>0.6</td>
<td>250</td>
<td>1.0</td>
</tr>
<tr>
<td>Conifer plantation</td>
<td>high</td>
<td>0.6</td>
<td>158</td>
<td>0.7</td>
</tr>
</tbody>
</table>

El Cerrito's Urban Forest

- Street Trees
- Yard Trees
- Park Trees
- Vacant Lot Trees
- Greenway Trees
- Stream-side Trees
Costs and Benefits of the Urban Forest
(Maco et al., 2005)

Costs
- Planting
- Maintenance
- Removal
- Damage to Infrastructure

Benefits
- Energy Saving
- Atmospheric Carbon dioxide reduction
- Air Quality benefits
- Stormwater runoff reduction
- Increased property value
- Wildlife habitat
- Social benefits
- Human health benefits

Benefit/Cost Ratio (Berkeley) = 1.37

Weighing the fire hazard of the urban forest

Tubbs Fire – Coffee Park – Santa Rosa -2017
Fire Hazard in the Urban Forest

Hazard associate with individual trees

High Fire Hazard
1. Low moisture content
2. High resin content in bark and foliage
3. Exfoliating bark

Low Fire Hazard
1. High moisture content
2. Low resin content in bark and foliage
3. Non-exfoliating bark

Vegetation structure and fire hazard
Examples of High Fire Hazard

Eucalyptus in Hillside Park

Un-managed Vegetation on Vacant Lot

Hazardous Fuels Down Slope

Ignition of Structures during Wildfires

Flame Contact

Embers

Radiant Heat
Factors contributing to the loss of structures

Building Materials  Design of structures  Landscaping

Reducing the Fire Risk

1. Architectural standards to reduce fire risk
2. Fire hardening of structures
3. Fuel management
Fuel Management

1. Convert fire hazardous vegetation types
2. Create fuel breaks
3. Reduce fuel loading/eliminate fuel ladders
4. Establish defensible space
5. Establish Street-side buffers

1. Convert Hazardous Vegetation Types

Eucalyptus
Characteristics of Wildland Fuels/Fires in the East Bay

<table>
<thead>
<tr>
<th>Vegetation type</th>
<th>Fuel loading (tons/acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual grassland</td>
<td>1.51</td>
</tr>
<tr>
<td>Baccharis brushland</td>
<td>18.7</td>
</tr>
<tr>
<td>Oak-bay woodland</td>
<td>3.7</td>
</tr>
<tr>
<td>Eucalyptus plantation</td>
<td>60</td>
</tr>
<tr>
<td>Conifer plantation</td>
<td>40.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vegetation type</th>
<th>Ease of ignition</th>
<th>Rate of spread (m/min)</th>
<th>Fire-line intensity (kW/m)</th>
<th>Average flame length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual grassland</td>
<td>high</td>
<td>3.8</td>
<td>66</td>
<td>0.5</td>
</tr>
<tr>
<td>Baccharis brushland</td>
<td>moderate</td>
<td>1.6</td>
<td>197</td>
<td>0.8</td>
</tr>
<tr>
<td>Oak-bay woodland</td>
<td>low</td>
<td>0.6</td>
<td>36</td>
<td>0.4</td>
</tr>
<tr>
<td>Eucalyptus plantation</td>
<td>high</td>
<td>0.6</td>
<td>250</td>
<td>1.0</td>
</tr>
<tr>
<td>Conifer plantation</td>
<td>high</td>
<td>0.6</td>
<td>158</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Convert Hazardous Vegetation Types

Monterey Pine
Oakland/Berkeley Fire - 1991

Convert Hazardous Vegetation Types

Eucalyptus

Monterey Pine
### Management Costs

<table>
<thead>
<tr>
<th>Management prescription</th>
<th>Treatment</th>
<th>Cost/acre ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion of eucalyptus plantations</td>
<td>Tree removal</td>
<td>20,000</td>
</tr>
<tr>
<td></td>
<td>Sprout control</td>
<td>2,000</td>
</tr>
<tr>
<td></td>
<td>Conversion of understory oak and bay to shaded fuelbreak</td>
<td>3,000</td>
</tr>
<tr>
<td></td>
<td>Conversion of poison oak understory to grassland</td>
<td>3,500</td>
</tr>
<tr>
<td>Conversion of conifer plantations on ridges</td>
<td>Tree Removal</td>
<td>5,000</td>
</tr>
<tr>
<td></td>
<td>Conversion of understory oak and bay to shaded fuelbreak</td>
<td>3,000</td>
</tr>
<tr>
<td></td>
<td>Conversion of understory without oak and bay trees to annual grassland</td>
<td>790</td>
</tr>
</tbody>
</table>

### 2. Create Fuel Breaks

**Vegetation Free Fuel Break**

**Shaded Fuel Break**

![Before](image1.png)  
![After](image2.png)
Cost of Treatments

<table>
<thead>
<tr>
<th>Management prescription</th>
<th>Treatment</th>
<th>Cost/acre ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shaded fuelbreak</td>
<td>Tree thinning, pruning, and ground fuel removal</td>
<td>3,000</td>
</tr>
<tr>
<td>establishment (adjacent to property boundaries and structures)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Reduce Fuel Load/Eliminate Fuel Ladders

<table>
<thead>
<tr>
<th>Vegetation type</th>
<th>Fuel loading (ton/acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual grassland</td>
<td>1.51</td>
</tr>
<tr>
<td>Beech (brunhland)</td>
<td>18.7</td>
</tr>
<tr>
<td>Oak-bay woodland</td>
<td>3.7</td>
</tr>
<tr>
<td>Eucalyptus plantation</td>
<td>60</td>
</tr>
<tr>
<td>Conifer plantation</td>
<td>40.7</td>
</tr>
</tbody>
</table>

Manual

Mechanical

Goat Grazing

Prescribed Burning
Eliminate Fuel Ladders

Before and After comparisons of a road.

Reduce Fuel Load/Eliminate Fuel Ladders

<table>
<thead>
<tr>
<th>Management prescription</th>
<th>Treatment</th>
<th>Cost/acre ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce fuel load/</td>
<td>Remove surface fuels/</td>
<td>$3,000</td>
</tr>
<tr>
<td>Eliminate fuel ladders</td>
<td>Remove living and dead plants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Forming fuel ladders</td>
<td></td>
</tr>
</tbody>
</table>
4. Establish Defensible Space

Objectives of Defensible Space
1. Reduce the probability of flames, embers, and radiant heat from reaching a structure
2. Provide space for firefighters to protect the structure
   a. Set backfires
   b. Water down structure and adjacent fuels
Existing Plans and Guidelines

5. Establish Street-side Buffers
Street-side Buffers

Mulching

Mowing

Other Considerations to Address the Fire Risk

1. Maintenance of Evacuation Routes
2. Cooperation with adjacent cities, EBRPD, and state agencies
3. Support legislation for the creation of defensible space and fire hardening of houses
Maintenance of Evacuation Routes

Chinese elm over Potrero west of Navieller

Cooperation

Boundary with Regional Park District
Cooperation

Support legislation for the creation of defensible space and fire hardening of houses
Priorities

1. Negotiate fuel break with EBRPD
2. Convert eucalyptus and Monterey Pine to oak woodland and grassland
3. Create shaded fuel breaks in city parks along boundaries with residential areas
4. Reduce fuel loading and eliminate fuel ladders in all parks, open space areas, and vacant lots
5. Initiate an information campaign to inform property owners about defensible space and fire hardening of houses
6. Monitor and address potential tree problems along evacuation routes

END