

2164 Papaya
La Habra Heights, CA 90631
(562) 690-3378

July 4, 2011

City Council of La Habra Heights
Brian Bergman
Stan Carroll
Roy Francis
Howard Vipperman
Carl Westerhoff

With a copy to Carl Vos and Shana Clark
(All copies were sent via email)

Dear City Council Members:

The City's website currently contains a "La Habra Heights Fire Hazard Reduction Checklist" (hereinafter the "Proposed Checklist"), which will receive your decision on July 14. As is explained herein, the Proposed Checklist is a terrible idea that deserves significant modification. Our specific suggestions are contained in the attached Exhibit 1.

The Proposed Checklist is no doubt motivated by a sincere desire to lessen fire danger. But the checklist has a unilateral fire-prevention focus that causes severe problems in other areas. To consider the unintended consequences of the Proposed Checklist, imagine the following headlines, each of which will be accurate if the Proposed Checklist is adopted and enforced:

City Council approves the removal of almost every tree in the City's Park.

Because of dead and sick avocado trees, La Habra's once proud symbol is abandoned.

Practically every LHH resident must remove multiple mature trees and bushes, reducing both beauty and property values.

Of course, each of the above would be a disaster, and is certainly not intended by the five of you. But each of the above is an immediate and direct consequence of the Proposed Checklist if it is actually enforced. And, any regulation that is not uniformly enforced faces substantial legal and ethical problems.

I. IS THE CITY'S PARK REALLY A FIRE HAZARD?

Let's be clear. The Park is used in this illustration only because it is a common point of reference. These authors do not believe that there is any fire problem with the Park, and nothing needs to be changed. But, the Proposed Checklist thinks otherwise. If the Proposed Checklist's vague requirements are enforced strictly, (i) there will not be a single tree left in the Park's area that is most commonly used, (ii) the more remote Park areas will have most of its trees removed, and (iii) the ground cover on the children's play area will need to be removed. Here are the details (See Exhibit 1 for the numbering used herein):

1. Item 11 of the Proposed Checklist states that, "where possible, remove problem trees such as eucalyptus, palms and pines". Troubling, these three listed tree families are just examples, so we have no idea what the fire department will additionally perceive as a "problem". Further, we have never seen a tree that was not "possible" to cut down; we doubt that anyone reading this letter has ever seen an impossible-to-cut-down tree. When applied to the Park, here are the eucalyptus, palms and pines that are possible to cut down, all of which are presumably goners:

- a. The Park contains over 60 mature pines.
 - b. The Park contains over 30 mature Eucalyptus.
 - c. The Park contains five palm trees close to the north side of the Auditorium, and one (untrimmed and probably flammable) palm tree to the south of the horse ring.
2. The main area of the Park contains at least three structures: the auditorium, the covered picnic area, and the announcer's booth. Items 10 and 18 of the Proposed Checklist states that (i) trees should not be planted within 200 feet from any structure, and (ii) unidentified "common garden plants that have proven particularly flammable" should be removed. Item 18 further specifies that "Cypress, Fountain Grass, Large Juniper, Eucalyptus, Pines, and other Conifers" as a group should be eliminated. Applied to the Park, the following trees should be removed:
- a. Whether on the list of "particularly flammable" plants or not, practically every tree in the Park is within 200 feet of one of the three structures mentioned above. This is not allowable under item 10 of the Proposed Checklist.
 - b. The Park contains over 60 mature pines, and two mature non-pine conifers. Additional younger pines exist. All must go under item 18 of the Proposed Checklist.
 - c. The Park contains over 30 mature Eucalyptus. Again, all must go under item 18 of the Proposed Checklist.
 - d. If one expands item 18 to highly flammable palms (an expected extension), the Park contains five palm trees close to the north side of the Auditorium, and one (untrimmed and probably flammable) palm tree to the south of the horse ring. These palms would also be eliminated under this rule.
3. Item 5 of the Proposed Checklist states that space must exist "between shrubs and trees to prevent fire spread". Similarly, item 6 of the Proposed Checklist states that one is to "avoid continuous tree or brush canopies". The vast majority of the trees at the Park do not have space between their canopies, thus requiring that trees be eliminated. Specifically:
- a. The Park contains 17 mature California Pepper trees fronting the east side of the Park (along Hacienda Boulevard) with intermingled canopies. Under the Proposed Checklist, approximately half of these mature trees must be eliminated to create spacing.
 - b. The Park contains numerous sycamores (we did not count these), primarily in the Park's central area. Practically all of these mature trees are closer to other trees than the Proposed Checklist allows, requiring that more than half of these mature sycamore trees be eliminated.
4. Item 8 of the Proposed Checklist indicates that trees and shrubs should not be within 30 feet of any structure. Like practically every responsibly-planted property, the Park has foundation bushes and trees within 30 feet of the various structures there. According to the Proposed Checklist, these plants are targets for elimination.
5. The park's enclosed play area contains approximately six inches of mulch to provide an appropriate cushioned ground. Yet, item 13 in the Proposed Checklist indicates that a maximum of three inches of mulch is needed to avoid spontaneous combustion.

We applied the same rules to our personal two-acre property with alarming results. We have landscaped the entire two-acre property, and there is no "wild" section. We have previously been pleased to obtain the fire department's review of our property, and have quickly implemented all suggestions. However, we have actually received few critiques other than a compliment that our property is well maintained and we should keep up the good work.

So, what is the concern? Our personal property contains the following structures: (i) a residence, (ii) two permit-received decks made from non-flammable plasticized wood (Trex), and (iii) a permit-received steel storage shed (obviously steel will not be easy to burn). In spite of the prior compliments involving fire conditions, when the Proposed Checklist is applied to our home, not a single tree will remain. This occurs primarily because:

1. 200 feet from a structure covers our entire property, even before one includes our neighbor's adjacent residences; and
2. We have dozens of fruit trees, including avocados. These trees are short as trees go, but the trees in this orchard are planted sufficiently close to one another that items 5 and 6 of the Proposed Checklist indicate that they should be removed.

The other properties in our want-to-be rural community will fare no better. Yes, there are some properties that need better fuel reduction. But, under the Proposed Checklist, the "baby will be thrown out with the bathwater". The Proposed Checklist will dramatically change the character of our rural community, and will drive down home values in the process.

II. DO NOT MAKE "BACK-DOOR" CHANGES TO THE GENERAL PLAN BY FORGETTING TO BALANCE NUMEROUS COMPETING OBJECTIVES

The City's General Plan will be violated by the adoption and enforcement of the Proposed Checklist. Although almost enumerable quotes could be provided about our desired rural environment, the very first part of the "Introduction" of the General Plan states.

"La Habra Heights is a unique community in the greater Southern California metropolitan area because of its rural community character. This community character is not an accident, but reflects the intentional efforts and commitment of residents over the past 75 years. ... These sensory inputs begin with the larger scale views of rolling hills dominated by vegetation with homes only partially visible from any vista and the absence of any significant linear features."

As articulated in the General Plan, the City specifies twelve goals. Fully half of these goals (listed below) are violated by the Proposed Checklist:

Goal 1. Protect, preserve, and enhance the residential rural character and individualistic lifestyle of La Habra Heights.

Goal 2. Minimize alteration of the natural terrain.

Goal 3. Preserve scenic views.

Goal 4. Preserve existing water courses, scenic beauty, mature trees, and vegetation...

Goal 7. Require that future residential development continues the present variety and diversity of structural design and appearance, maintains residents' privacy with large distances between houses, and is harmonious with natural settings.

Goal 8. Allow and encourage agricultural uses, including but not limited to, citrus and avocado groves and tree farms."

III. THE PROPOSED CHECKLIST VIOLATES THE CITY'S MUNICIPAL CODE

Certain of the Proposed Checklist items are in direct conflict with the existing Chapter 7.12 of the La Habra Heights Municipal Code, entitled "Landscaping Standards". Specifically, the La Habra Heights Municipal Code includes the following numerous appearance and landscaping requirements which are incapable of being met under the Proposed Checklist:

"7.12.30 Performance Standards for Landscaping

All new development and specified remodeling must adhere to the City's landscaping performance standards designed to maintain community character, privacy, views and public health and safety.

A. View Enhancement and Protection. Landscaping plans for residential development shall be required to ensure that the visual impact of new structures is softened by providing screening, privacy for adjoining structures, and preservation of the rural appearance of the community. ...

D. Landscaping on Graded Surfaces. Landscaping shall be adequate to prevent grading-induced erosion and to restore the look of the natural terrain.

E. Landscaping for Screening. Landscaping must be used to screen all retaining and other walls, parking areas, and other hardscape areas. Landscaping shall screen obtrusive structures, provide privacy and soften the impact of new development.

F. Preservation of Significant Trees. Existing significant trees shall be preserved whenever possible.

7.12.40 Development Standards for Landscaping

The following sections implement the City of La Habra Heights General Plan goals and policies related to landscaping as a means to protect views, privacy, and community and neighborhood character. ...

B. Minimum Landscaping Requirements. Landscaping that screens the residence and all other structures from the street and neighboring residences must be provided in the front and other yards. Landscaping shall be provided in the following locations:

- 1. All required setback areas pursuant to the requirements of Chapter 7.11, except where a required setback is occupied by the access portion of a driveway, shall be landscaped.*
- 2. Those areas used for fire control and/or erosion control more than five (5) feet from the edge of pavement of the adjacent streets shall be landscaped and maintained.*

D. Use of Landscaping for Screening. On-site landscape materials must provide at least fifty percent (50%) screening, as certified by a licensed landscape architect, of all elevations of all structures and fences and retaining walls visible from the street and from other parcels ... (refer to Exhibits 7-6 and 7-8).



Exhibit 7-6. Use of Landscaping for Screening

E. Arrangement of Shrubs. Shrubs visible from adjacent private and public properties shall be arranged in broad, informal masses to produce a mounded, textured slope surface (refer to Exhibit 7-7).

F. Arrangement of Trees. Tree plantings visible from adjacent private and public properties shall be placed on the property in a random (non-formal) manner in locations where they will be most effective in softening the impact of construction (refer to Exhibit 7-7)



Exhibit 7-7



Exhibit 7-8 Landscaping and Obstruction of Significant Views

J. Landscaping for Erosion Control. All graded areas must be landscaped to control erosion and restore the look of the natural terrain. Landscaping, which may include trees, shrubs, and ground covers, shall be utilized immediately or before the next rainy season after grading to stabilize and hide all graded areas. All landscaping used for erosion control must be maintained and irrigated. Measures other than landscaping may be used for temporary erosion control prior to completion of construction.

Every one of the above requirements in the La Habra Heights Municipal Code violates the Proposed Checklist for the following reasons (See attached Exhibit 1 for numbering):

1. In contravention to proposed item 5, there is not "space between shrubs and trees".
2. In contravention to proposed item 6, there are "continuous tree or bush canopies".
3. In contravention to proposed item 7, there are "adjacent plants" that have not removed.
4. In contravention to proposed item 8, there are "trees and shrubs within 30 feet of a structure".

5. In contravention to proposed item 10 and 18, trees are not “planted a minimum of 200 feet from any structure and on the bottom two-thirds of any slope below a structure”.
6. The Proposed Checklist provides no meaningful consideration for the avoidance of erosion and landslides.

IV. THE PROPOSED CHECKLIST EXCEEDS THE APPROPRIATE REQUIREMENTS ALREADY CONTAINED IN THE MUNICIPAL CODE

If enforced, the Municipal Code already provides appropriate guidance for fire protection. However, the Municipal Code provides instructions and authority that is different than contained in the Proposed Checklist. For example, if the Municipal Code is the fire safety benchmark at the Park (See Section I), then the Park need not be modified.

For starters, the distances in the Proposed Checklist are contained in Article 4.4.70 of the Municipal Code. However, the Municipal Code requires (i) specific, more limited, fire prevention requirements, and (ii) does not require the across-the-board destruction of whole classes of bushes and trees. Specifically:

“Fuel Modification Zones. Specific zones of a property are subject to fuel modification requirements with regard to the planting of vegetation. These fuel modification requirements are designed to lessen the potential for wildfire. Fire fuel modification zones will be installed and maintained around all structures pursuant to the following fuel modification zone requirements and as shown in Exhibit 4-1:

1. *Zone A extends to a minimum of thirty (30) feet from any structure. This zone is the fuel modification “wet zone” requiring fire resistant vegetation and irrigation systems. Land within this zone must be free of debris, dead wood, branches touching the ground, and other dry or dead vegetation.*
2. *Zone B extends from Zone A to a minimum of one hundred (100) feet from any structure, regardless of where such structure is located plus any area within twelve (12) feet of the edge of the pavement on any public road or private residential access road. This zone requires either fire resistant and irrigated landscaping or other plant materials (including native species) thinned by a minimum of fifty (50) percent. Land within this zone must be free of debris, dead wood, branches touching the ground, and other dry or dead vegetation.*
3. *Zone C extends from Zone B to a minimum of two hundred (200) feet from any structure, regardless of where such structure is located. This zone requires either fire resistant and irrigated landscaping or other plant materials (including native species) thinned by a minimum of thirty (30) percent. Land within this zone must be free of debris, dead wood, branches touching the ground, and other dry or dead vegetation.”*

Let’s examine what these three zones provide.

1. Zone 1 does not require that the 30-foot “wet zone” be denuded or partially denuded, as a possible reading of the vague Proposed Checklist items 5, 6, 7, 8, 10, 11, and 18 might suggest.¹ Instead, Zone 1 simply requires that a yard be responsibly gardened and cleaned.

¹ Since 30 feet (Zone 1) and 100 feet (Zone 2) are also within 200 feet, the requirements of items 10 and 18 also apply to Zones 1 and 2.

2. Zones 2 and 3 do not require that (i) trees, (ii) native plants that want to grow adjacent to one another, (iii) certain unnamed "common garden plants" and (iv) other "problems" (for which we know only examples) be eliminated. In Zones 2 and 3, the resident has the choice of whether to eliminate entire plants as part of a fuel reduction program, or to lighten the fuel load by pruning the plants that the resident wishes to remain. The requirement to lessen fuel loads can be avoided entirely if the areas are irrigated and landscaped.

Municipal Code Article 4.4.60 provides additional fire requirements. However, when compared to the Proposed Checklist, these requirements again require (i) specific, more limited fire prevention requirements, and (ii) do not require the across-the-board destruction of whole classes of bushes and trees. Specifically:

*"4.4.60 Live Vegetation Control Measures
The following requirements shall apply:*

- A. Removal of Flammable Vegetation. All flammable vegetation must be removed from gutters, roof areas, and eaves.*
- B. Tree limbs must be trimmed for a minimum distance of ten (10) feet from any chimney or stovepipe. Any dead limbs or vegetation hanging over roofs must also be removed.*
- C. Wooden or Combustible Fences. All flammable materials must be removed within ten (10) feet of any wooden or combustible fence. ..."*

The City's weed abatement program, of which this checklist is apparently intended to be a part, has a more limited scope than contained in the Proposed Checklist. Notably, the program is intended to address "weeds, refuse, rubbish and dirt", and not the across-the-board destruction of whole classes of trees and bushes. Article 4.4.50 of the Municipal Code includes:

"4.4.50 Weed Abatement

- A. Property Owner Responsibilities. Every person who owns or is in possession of any property within the City of La Habra Heights shall, at their own expense, maintain their property free from any growth of weeds that constitutes a fire hazard. ...*
- C. Abatement Procedures. In order to reduce fire hazards and nuisances associated with weeds, refuse, rubbish and dirt upon or in front of private property, the City Council may conduct proceedings pursuant to Article 2 of Chapter 13 of Part 2 of Division 3 of Title 4 of the California Government Code (Section 39560 et seq.). Such proceedings may include requiring abatement of fire hazards throughout the City, entering upon property and performing abatement where the private property owner does not abate, and placing a lien on the property to recover costs. Without notice, the Fire Chief may also summarily abate weeds and hazardous growth on private property that in any way hinders emergency access, and charge the property owner for the costs of the abatement."*

The definitions section of the Municipal Code delineates what is covered by "Weed Abatement" and related "Abatement Procedures". "Refuge", "rubbish" and "dirt" are not defined in the Municipal Code, but the standard dictionary definitions of these terms certainly do not include whole classes of living bushes and trees. The Municipal Code does define "weeds", but the definition is much more limited than what the Proposed Checklist wishes to control. Specifically:

"Weeds include any of the following:

- A. Weeds which bear seeds of a downy or wingy nature.*
- B. Sagebrush, chaparral, and any other brush or weeds which attain such large growth as to become, when dry, a fire menace to adjacent property.*

- C. *Weeds which are otherwise noxious or dangerous.*
- D. *Poison oak and poison ivy when the conditions of growth are such as to constitute a menace to the public health.*
- E. *Dry grass, stubble, brush, litter, or other flammable material which endangers public safety by creating a fire hazard."*

The new requirements contained in the Proposed Checklist are not necessary. The three Zones and additional fire-related requirements specified above maintain the needed balance with competing objectives. The Proposed Checklist has no such balance. The existing Municipal Code provides an adequate means of addressing legitimate fire concerns, and should be enforced as is.

V. THE PROPOSED CHECKLIST CONTAINS INACCURATE STATEMENTS REGARDING MULCH

Throughout this section, we refer to the California Master Gardener Handbook, publication 3382, published by the University of California, Division of Agriculture and Natural Resources. This publication is peer reviewed for technical accuracy by University of California scientists and other qualified professionals, and is widely considered the leading authoritative text in California gardening matters. However, the matters contained herein are further supported by practically every learned book and treatise covering these subjects.

The notion that "mulch" causes spontaneous combustion is hyperbole at its worst. What the checklist should be addressing is "compost". According to the California Master Gardener Handbook²:

*"Composting is the process in which organic substances are reduced from large volumes of rapidly decomposable materials to small volumes of materials that continue to decompose slowly. ... One of the many benefits of adding compost to the soil is that the nutrients in compost are released slowly into the soil and are then available to the plants."*³

Compost piles in a residential setting will not spontaneously combust. We spent literally hours on the internet attempting to find evidence of small compost pile spontaneously computing, and found no examples, and no meaningful warnings. While there have been numerous examples of fires with compost piles, these all involve municipal or industrial piles that are often times as large as a house.

*"An optimized compost pile is about 3 to 4 feet square. Larger piles tend to hold moisture better and decompose faster."*⁴

If mulch were used more widely, the fire department's needs for weed abatement would lessen considerably and the overall fire risk of the City would decrease. However, mulch depth needs to be greater than what the Proposed Checklist allows. Specifically:

*"Organic mulches can be very effective for controlling annual weeds. The courser the material, the deeper the mulch needs to be. ... The mulch depth should be 1 to 3 inches for finer materials such as sawdust or grass clippings, and 3 to 6 inches for coarser materials such as bark, straw, or shredded plant matter."*⁵

² Pittenger, Dennis R (editor), California Master Gardner Handbook (2002), University of California Division of Agriculture and Natural Resources, ISBN 1-879906-54-6.

³ Ibid. Page 43

⁴ Ibid, Page 43

⁵ Ibid, Page 238

Avocado trees require organic mulch to be healthy. Mulch provides significant advantages to all subtropical fruit trees, including avocado and citrus. Specifically for avocados:

"Maintaining leaf litter or an organic mulch on the soil surface reduces ET [evapotranspiration], helps maintain adequate soil moisture where needed, and reduces soil temperature. Therefore, do not remove the natural leaf litter (mulch) from your avocado tree. Take advantage of it."⁶

The University of California Division of Agriculture and Natural Resources devotes an additional two textbook pages to the need for mulch with avocados, and related explanations of why this is true. Brief excerpts follow:

"Mulches have numerous benefits in the cultivation of avocado trees, including the suppression of Phytophthora cinnamomi, the cause of avocado root rot, the most serious avocado disease worldwide. Yard waste (wood chips, grass clippings, and leaves), straw, (grain or bean), wood shavings, alfalfa meal or any inexpensive organic material can be used for mulching. ...

Control of Avocado Root Rot Disease

Thick mulches applied to the soil surface can create conditions harmful to pathogenic soil organisms ... Mulching increases the population of soil microbes that can compete with or inhibit fungal pathogens. ... Mulches create a natural litter favoring the proliferation of tree roots and disfavoring Phytophthora infection. The interface of soil surface and mulch is a natural microenvironment where roots grow well but where Phytophthora cannot survive. ...

Reduction of Weed Problems ...

Conservation of Water

Mulches can conserve water by reducing evaporation from the soil, reducing runoff and erosion, increasing the permeability of the soil surface, and increasing the water holding capacity of the soil. At field capacity, mulched soils with high organic matter will have more water available to the trees.

Improvement in Soil Physical Properties ...

Improvement in Nitrogen Fertility

... The long-term benefit of decomposed mulch is the slow and increased release of nitrogen to the soil. Organic mulches also supply several other essential plant nutrient elements, in part because they increase the soil's cation exchange capacity, which increases the availability of many nutrients elements to plant roots.

Improvement on Soil Temperature

Mulches can reduce wide fluctuations in soil temperature by reducing the soil's absorption of heat. This is beneficial to root growth, especially in young trees and in areas where summer temperatures are very high. Lower temperatures are also less favorable to Phytophthora."⁷

A similar but customized long discourse on the benefits of mulch is provided for citrus trees. However, the discussion of citrus-related mulch makes the following additional point:

"One of the most compelling reasons to use yard waste as a citrus mulch is that it contributes to solving the problem of urban waste disposal. About 20 percent of solid waste dumped in landfills is

⁶ Ibid. Page 602

⁷ Ibid. Pages 605 - 607

*estimated to yard (green) waste. California's Integrated Waste Management Act mandates a significant reduction in the amount of waste that each county and city sends to landfills."*⁸

Avocado trees trunks must be protected from the sun, or they will sunburn. Avocado trees do this naturally by growing a drooping canopy of foliage. But the proposed fire city checklist would have more aggressive pruning of avocados to avoid branches reaching the ground. The University of California's instructions include:

*"Most avocado trees require no pruning. Whenever possible, allow trees to grow naturally. ... Prune avocado trees cautiously. An abundance of foliage, which manufactures food (photosynthate) for the tree, keeps fruiting vigorous."*⁹

VI. THE PROPOSED CHECKLIST'S APPARENT SOURCE DEMONSTRATES ITS MISUSE HERE

The language of the Proposed Checklist comes nearly verbatim from the County of Los Angeles Fire Department in an informational article.¹⁰ Note the following:

1. The article is informational only, and not intended as a regulation. To the best that we can tell, no other city in Los Angeles uses this checklist as the basis to (i) write up a citation, (ii) require the homeowner to comply with the citation, and then (iii) enforce the citation by going onto the premises to physically remove (at the homeowner's expense) whatever the resident has not done to the fire department's satisfaction.
2. At the risk of being obvious, La Habra Heights takes great pride in being different than the rest of the urban areas of Los Angeles. If La Habra Heights wishes to maintain its distinct rural environment, it must do something other than imitate the rest of Los Angeles's urban rules.

But much more important, in the very same article, the County of Los Angeles Fire Department provides important guidance that is entirely missing in the Proposed Checklist. This additional guidance places important perspective and limitations on the Proposed Checklist that is entirely missing in what the City Council is being asked to approve. The additional important guidance includes:

"Fire Hazard vs. Erosion Control

The Los Angeles County Department of Public Works requires that slopes be planted to prevent erosion. ... Indiscriminate clearing of vegetation has resulted in past erosion problems. Fire hazard reduction and erosion control are compatible, however there must exist a compromise....

Soil Erosion Hazard Checklist

Maintain as much of the canopy as possible. Fuel reduction can be accomplished by thinning tree or shrub canopies. This maintains the same area of ground cover yet reduces the amount of fuel available to burn. The existing canopies absorb the energy of the falling raindrops, which are responsible for the displacement of the soil particles. ...

Brush cut at the site can be chipped and spread over the bare soil to protect against erosion. These chips will also help to keep weeds and grass from growing in these areas. Chips should be large

⁸ Ibid. Page 568

⁹ Ibid. Page 605

¹⁰ See <http://www.fire.lacounty.gov/Forestry/VegetationManagementMiscTopics.asp#FHvsEC>

enough so that they don't blow around in a strong wind and should be spread to a thickness of not more than 6 inches."

The last item on the Proposed Checklist demonstrates that this entire document was simply lifted from a something created for another purpose. Recommendations for future planting should not be part of an enforcement checklist. Additionally, there are much more complete sources available for fire resistant and drought tolerant plants.

VII. INSTEAD OF ASKING A VOLUNTEER FIREMAN TO MAKE JUDGMENTS THAT WILL ULTIMATELY CAUSE EVEN GREATER DISPUTE, MORE OBJECTIVE GUIDANCE IS NEEDED.

Certain portions of the Proposed Checklist lack performance standards or measurements that make the checklist unusable as an authoritative document. If approved with the current vague or non-existent measurements, those enforcing the guidelines will have an impossible task of justifying decisions made in the field. Disputes and possibly litigation are inevitable. The ambiguity and vagueness includes the following: (see Exhibit 1 for numbering):

1. In item 3, in the context of a rural environment, what is meant by "clean" and "litter"? As described in Section V above, leaf litter is a required part of the biology of avocado trees (as well as numerous other species, such as our venerable oaks). Practically all plants benefit from mulch, yet someone who is focused solely on fire retardation might view the mulch as something that is not "clean". Exhibit 1 provides suggested performance measures based on the authoritative guidance cited in Section V.
2. In proposed number 5, "Leave space between shrubs and trees to prevent fire spread" provides no guidance as to how much space is necessary. In proposed number 6, "Avoid continuous tree or brush canopies" has a similar challenge. If the space is sufficient "to prevent fire spread" in even a light wind, then it will be impossible to have any (i) orchard, (ii) park-like setting, or (iii) landslide protection anywhere in La Habra Heights. Because the need to maintain a rural environment and the need for slope protection are both quite important, the proposed items 5 and 6 should be deleted.
3. In item 7, what measurement is intended by "adjacent"? One meaning of adjacent is "neighboring". This entire item should be eliminated for other reasons, but a performance measure is certainly required if this item survives.
4. In proposed number 8, the word "limit" has no fixed meaning. Some might interpret this word to mean that nothing is allowed; meaning, the limit is zero. Others might accurately state that 100 trees and shrubs is a limit; after all, 100 trees and shrubs is less than a "limit" of 200 such plants.
5. In item 10, is this recommendation a requirement that will generate City enforcement action and related property liens? If the City intends to place a lien on a resident's property for the cost of removing trees, this becomes far more than a recommendation.
6. In item 11, it is "possible" to remove any tree. This was noted in the illustration at the beginning of this document with respect to the Park. At what practical point will the mere possibility of removing a tree generate City enforcement action and related property liens?
7. In item 11, what is the full list of "problem trees", since these three tree families are only examples? How is a "problem" species of tree to be determined?

8. In item 18, what are the specific "common garden plants that have proven particularly flammable"? Since the listed plant groups are only examples, what other plant species must be removed?

The Proposed Checklist faces the additional challenge of grouping all species within a family or group of families together. In doing this, desirable plants are labeled as undesirable. Although numerous other examples could be provided, the Coast Redwood (of which several wonderful specimens are in La Habra Heights) is a conifer, and hence is on the "remove" list contained in the Proposed Checklist. However, the U.S. National Park Service describes redwoods as being one of the least flammable of trees, as follows:

*"Remarkably fire-resistant, a redwood will be killed only by the most savage inferno. It is saved by three things: its heavy layer of insulating bark, often more than a foot thick on a mature tree; the considerable water in the wood itself; and the absence of pitch, the flammable substance that ignites readily in other conifers."*¹¹

Similarly, the nearby Los Padres National Forest describes the Coast Redwood's fire resistance as follows:

*"... the fire resistant bark of the coast redwood can be up to 12 inches thick, acting as a shield against fire. This is why many of the coast redwoods you see have black scars running far up their trunks, having endured many fires throughout their long lives. In addition, its wood does not contain the flammable resins that cause many other conifers to burn easily."*¹²

It is important to base one's conclusions on research, and not rely on unexplained lists compiled by casual observation. For example, *Acacia spp.* is sometimes identified as a highly flammable tree. Acacia are commonly sold and planted in this area. Yet, research performed by Bert Wilson¹³ of Las Pilitas Nursery demonstrated that *Acacia spp.* had remarkably slow burn rates.¹⁴

The tests of flammability generally indicated that the real culprit in wildland fires are small dry plants that grow among larger plants. Specifically:

"This experiment really points out that weed control and garden hygiene are as important, or more important, than plant choice or irrigation practices. ... if you have weeds in brush, you get a very fast, erratic, spotty, and hot fire. "

The flammability results by species are summarized as follows:

"... the more drought tolerant the plant, the poorer it burns, the smaller the leaf, the poorer it burns, and the wider spaced leaves are very hard to ignite. For the most part, unwatered natives did better than watered non-natives. ...

Mulch is ok as long as it doesn't run right up to within about a foot of the house. The trade off is the mulch can smolder and cause some heart burn, but the plants will have better moisture retention and be less likely to burn."

¹¹ <http://nationalparkinformation.org/redwood-national-park/>

¹² <http://lpfw.org/about/critters/coastredwood.htm>

¹³ At the time of this quoted publication, Mr. Wilson was a volunteer firefighter for San Louis Obispo County fire for 14 years, and fought over a hundred wildland fires. He has grown and installed landscapes of California native plants for 35 years.

¹⁴ http://www.laspilitas.com/classes/fire_burn_times.html

When applied to La Habra Heights' fire issues, the inspectors should focus on the removal of (i) dead wood, and (ii) dense patches of dry small plants, and not the removal of grown trees. As noted previously, this is what the Municipal Code already requires.

VIII. SUMMARY OF REASONS FOR SUGGESTED CHANGES

Because of the length of this document, the following summary helps to identify why changes are needed in each provision of the Proposed Checklist. Numbers refer to the attached Exhibit 1.

1. No change suggested.
2. No change suggested.
3. Leaf litter is not the issue. Leaf litter will actually improve fire conditions by providing healthier plants that retain water better. Dead wood must be removed.
4. No change suggested.
5. Proposal is vague. Even if defined, the proposal will require the unnecessary removal of plants that (i) are well trimmed, (ii) do not cause inappropriate risk, (iii) might be necessary for erosion and landslide prevention, and (iv) preserve the rural atmosphere of the City. Additionally, this conflicts with Article 7 of the Municipal Code.
6. Same as item 5, although the language of this point is not vague.
7. Same as item 5.
8. Same as item 5.
9. No change suggested.
10. Same as item 5.
11. Same as item 5.
12. No change suggested.
13. See Section V regarding composting and mulch.
14. See Section V regarding composting and mulch.
15. No change suggested.
16. No change suggested.
17. No change suggested.
18. Same as item 5.
19. New provision added to address an issue not in the Proposed Checklist.
20. New provision added to address issues not in the Proposed Checklist.
21. Eliminated. This is a holdover from the original document created for an entirely different purpose.

Fire protection certainly is important. However, the Proposed Checklist fails to balance fire-related goals with goals of (i) enjoyment of natural beauty and a rural atmosphere, (ii) landslide prevention, (iii) California-mandated landfill reduction requirements, (iv) and preservation of water resources. The Proposed Checklist should be modified as set forth in the attached Exhibit 1.

Certainly, the City can educate its residents about the fire-related choices that they are making. The County of Los Angeles used the Proposed Checklist for this (but only for this) purpose. However, if this education tool is morphed into a regulatory requirement to be enforced by firemen, the results will be disastrous.

Thank you for carefully considering these issues. Best regards,



David Nolte



Kathryn G. Nolte

EXHIBIT 1

Suggested Changes to the "La Habra Heights FIRE HAZARD REDUCTION CHECKLIST"

The following is the text of the Proposed Checklist. Suggested deletions are marked with strikethroughs. Underlines indicate suggested additions.

Most importantly, the entire checklist should be based entirely on the Municipal Code. Consequently, even items that have not been modified herein should preferably be eliminated if not part of the Municipal Code. Item 20 suggests the checklist be designed in this manner.

La Habra Heights is in a very high fire hazard severity zone. Although it's not possible to eliminate every fire hazard, the following checklist should be adhered to:

1. Remove needles, leaves, or other vegetative material from the roof of any structure.
2. Remove or trim all vegetation (including live vegetation) a minimum of ten feet from chimneys or stovepipes.
3. ~~Keep landscape and acreage clean: remove litter under trees and shrubs;~~ Prune out all dead wood.
(Note: Will have to say something about avocado leaves being exempt)
4. Remove dead and dried portions of ground covers and succulents.
5. ~~Leave space between shrubs and trees to prevent fire spread.~~
6. ~~Avoid continuous tree or brush canopies.~~
7. ~~Separate native shrubs by removing adjacent plants.~~
8. ~~When planting, limit the number of specimen trees and shrubs within 30 feet of any structure.~~
9. Tree crowns should not overhang the roof and should be pruned high enough to avoid ignition by a ground fire.
10. ~~It is recommended that trees be planted a minimum of 200 feet from any structure and on the bottom two thirds of any slope below a structure.~~
11. ~~Where possible, remove problem trees such as eucalyptus, palms and pines.~~
12. Remove dead limbs, litter, pine cones, dead fronds and loose bark from the ground as well as from the trunks of eucalyptus, palm and pine trees.
13. ~~Mulch is responsible for 1000s of fires in the United States each year due to spontaneous combustion therefore it should be layered in the landscape area no deeper than 3 six (6) inches. and kept at least 18 inches from residential buildings, wooden fences, or any other area susceptible to fires.~~
14. Individual compost piles should not be any taller than six (6) feet, and more than three (3) cubic yards in volume. Mulch or compost that is not actively decomposing (as measured by an internal temperature of less than 100 degrees Fahrenheit) may be stored without size limitation. Do not create or store mulch in piles. Mulch can harbor fires for many days before the fire reaches the surface and becomes apparent to the homeowner.
15. Use pea gravel or other fire-safe types of mulch near barbeques, electrical wiring, and around gas meters.
16. Ensure that all decorative garden and other lighting near the ground is safe for landscape lighting purposes.
17. Store hay at least 30 feet from any residential structure.
18. ~~Within 200 feet of structures, remove common garden plants that have proven particularly flammable due to high brush buildup and foliage oils such as Cypress, Fountain Grass, Large Juniper, Eucalyptus, Pines, and other Conifers.~~
19. Smaller dry plants (aka weeds) should be either (i) mulched and moved to Zones 2 and 3, or (ii) removed entirely.
20. [Add language from the existing fire inspection checklist and the existing Municipal Code. This language is contained in the accompanying letter.]
21. ~~Consider planting the following fire resistant and drought tolerant plants from the Bewaterwise.com web site: (Please note, these plants may not be effective for slope stabilization)~~