



# A WILDLAND FIRE HAZARD ASSESSMENT OF BEVERLY HILLS

## ABSTRACT

This assessment looks at categorizing wildfire hazard at a 30 x 30 meter level for areas north of Sunset Boulevard within and adjacent to the City of Beverly Hills. The assessment also evaluates how a wildfire might affect portions of the City based on three simulated wildland fire scenarios. Recommendations are provided that will assist the Fire Department to maintain its current FireWise Community USA designation.

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## INTRODUCTION

At the request of the Fire Chief, an assessment has been completed of the existing fire hazard for the areas north of Sunset Boulevard within the administrative boundary of the City of Beverly Hills. This assessment also considered lands within a two mile buffer of the City, but not under its jurisdictional control. The buffer includes lands within the City of Los Angeles, as well as unincorporated areas of Los Angeles County and lands managed by the National Park Service. This buffer area outside of the City was included in the assessment as it represents a potential wildfire threat to Beverly Hills.

In addition to the hazard assessment, an analysis of the number of structures within the City which could be impacted by wildfire was conducted using three different wildfire modelling scenarios; two evaluating strong off shore winds typically associated with Santa Ana weather conditions, and a third scenario modeled using 97<sup>th</sup> percentile weather conditions as determined from twenty years of weather data from the Beverly Hills Remote Automated Weather Station (RAWS). This third modeling scenario uses the dominant southerly winds recorded by the RAWS.

## FIRE MODELING BACKGROUND

The assessments use two fire models developed by the Missoula Fire Laboratory of the United States Forest Service. The fire hazard assessment uses FlamMap, a fire mapping and analysis program that describes potential fire behavior for constant environmental conditions. Fire behavior is calculated for each 30 x 30 meter pixel within a digital landscape of the analysis area. Outputs from this model are well-suited for landscape level comparisons of potential wildfire behavior under similar weather conditions. The outputs from the model can be used to identify where on the landscape an elevated level of wildfire intensity can be anticipated given the existing fuel and topographic conditions. ([www.firelab.org/project/flammap](http://www.firelab.org/project/flammap)).

The fire damage potential assessment uses FARSITE as the fire model of choice. FARSITE is a fire growth modeling system that uses geo-spatial information on topography and fuels, along with weather and wind data provided by the user to produce simulated fire spread across the landscape. The program incorporates existing models for surface fire, crown fire, spotting, post-frontal combustion, and fire acceleration into a 2-dimensional fire growth model ([www.firelab.org/project/farsite](http://www.firelab.org/project/farsite)). FARSITE allows fire managers an opportunity to look at potential wildfire spread based on a specific ignition location and burning conditions.

The digital landscape used in the fire models was obtained from the LANDFIRE program. LANDFIRE is a shared program between the wildland fire management programs of the U.S. Forest Service and U.S. Department of the Interior, and provides landscape scale geo-spatial products to support cross-boundary planning, management, and operations. Digital data from LANDFIRE is current as of 2014 ([www.landfire.gov/about.php](http://www.landfire.gov/about.php)).

While LANDFIRE data is more than four years old at the time of this assessment, Christopher Balassanian, Beverly Hills Fire Systems Integrator, stated during a phone call that no significant landscape changes had occurred within the analysis area since LANDFIRE data was last issued. A site visit conducted on June 9, 2018 verified that the spatial data from LANDFIRE generally coincided with the current fuel conditions.

Finally, weather data used in the assessments was obtained from the archives of the Western Region Climate Center ([www.wrcc.dri.edu/](http://www.wrcc.dri.edu/)). Weather data from the Beverly Hills RAWS (Station 045442) for

the years 1997 through 2017 was downloaded and analyzed using FireFamily Plus (FFP). FFP is part of the National Fire Danger Rating System (NFDRS) and computes the indices and components of the system from current weather and climatology data. The program can be used to analyze past weather information to develop fire modelling inputs ([www.firelab.org/project/firefamilyplus](http://www.firelab.org/project/firefamilyplus)).

### WILDFIRE HAZARD ASSESSMENT

The State of California (CAL FIRE) classifies all locations north of Sunset Boulevard within the City of Beverly Hills as a *Very High Fire Hazard Severity Zone* (Figure 1). This classification, while useful from a policy and planning perspective, does not provide the level of detail requested by the Fire Department to support a finer-grained hazard assessment. In order to address the needs of the Department, fire hazard as derived from modeled wildfire intensities is presented at a 30 x 30 meter scale.

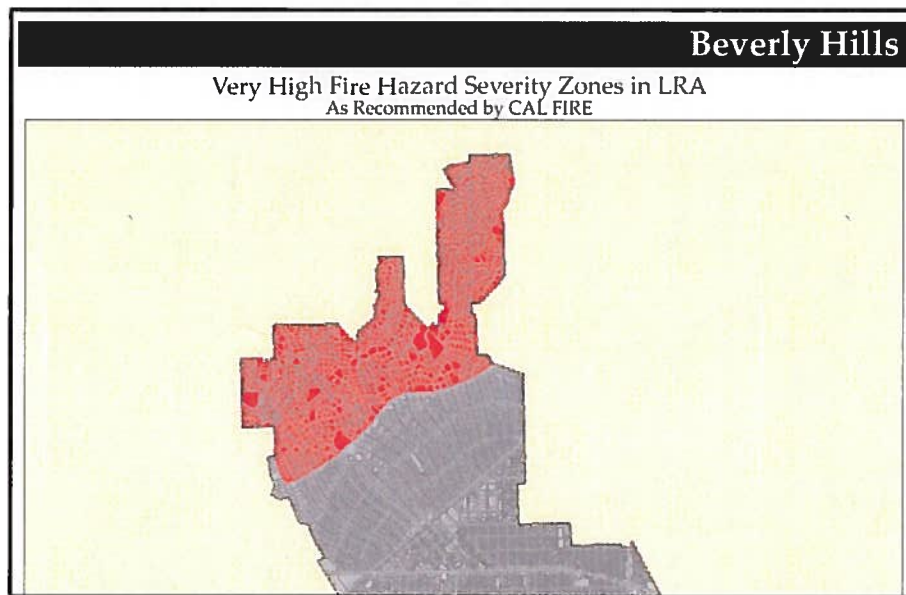


Figure 1. CAL FIRE classification Fire Hazard Severity Zones of the City of Beverly Hills. The red highlight indicates locations of Very High Fire Hazard Severity. Source: CAL FIRE Fire Resource and Assessment Program.

For this assessment, wildfire hazard is classified in five categories (Low – Extreme), based on the modeled flame length outputs from FlamMap. The categories used in the assessment are based on the ability of firefighters to successfully suppress the flaming front of a wildfire (Table 1).

The *Extreme* rating category used in the assessment was added in order to better identify locations where modeled fire intensity are well in excess of the ability of ground based firefighters to successfully suppress a fire.



Flame Length (feet)	Fire Hazard Rating	Interpretations
0 – 4	Low	Fires can generally be attacked at the head or flanks by persons using hand tools. Handline should hold the fire.
4 – 8	Moderate	Fires are too intense for direct attack on the head by persons using hand tools. Handline cannot be relied on to hold fire. Equipment such as dozers, engines, and retardant aircraft can be effective.
8 – 11	High	Fires may present serious control problems—torching out, crowning, and spotting. Control efforts at the head of the fire will probably be ineffective.
11 - 20	Very High	Crowning, spotting, and major runs are common. Control efforts at the head of the fire are ineffective.
20+	Extreme	Crowning, spotting, and major runs are common. Control efforts at the head of the fire are ineffective.

**Caution:** These are not guides to personal safety; fires can be dangerous at any level of intensity.

Source: NWCG Fireline Handbook, Appendix B Fire Behavior, April 2006.

Table 1. Beverly Hills site specific wildfire hazard rating guide. Modeled flame length from FlamMap are used to classify fire hazard into five categories. An "Extreme" hazard class was added to account for flame lengths greater than 20 feet.

**Assessment 1.** The first hazard assessment is based on 97<sup>th</sup> percentile weather and fuel moisture conditions as developed from FireFamily Plus. Twenty years of weather data from the Beverly Hills RAWS were used to determine the percentile thresholds for each of the required inputs into the fire model. The weather data set was trimmed to represent the time period June 1 through December 15 to better represent conditions that occur during the summer and fall fire season. Table 2 shows the 97<sup>th</sup> percentile values used in this assessment.

97 <sup>th</sup> Percentile Weather Values – Beverly Hills RAWS, June 1 - December 31						
Dry Bulb Temperature	Minimum Humidity	Wind Speed	1-hour Fuel Moisture	10-hour Fuel Moisture	100-hour Fuel Moisture	Live Fuel Moisture
103°F	8%	13 mph	2%	2%	5%	60%

Table 2. 97<sup>th</sup> percentile weather condition derived from FireFamily Plus based on 20 years of historic weather data from the Beverly Hills Remote Automated Weather Station.

The wind direction used in the assessment is based on daytime conditions to account for the normal onshore winds which influence the City's weather. Data from the RAWS indicates that the analysis area is most often be influenced by southerly winds (Figure 2).

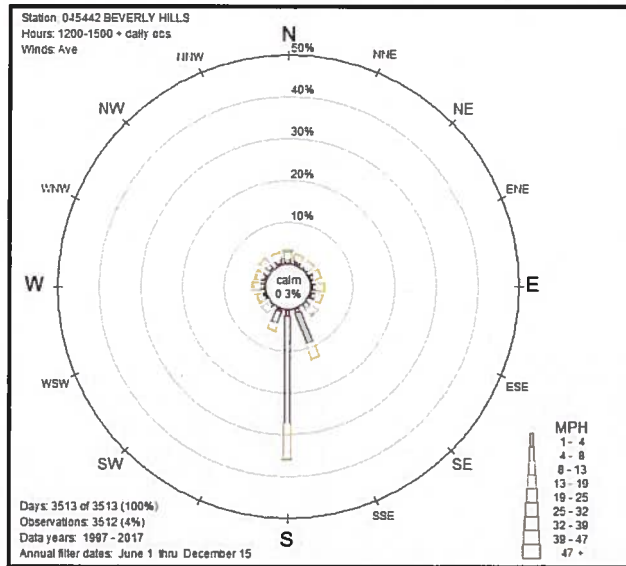


Figure 2. Wind Rose showing the dominant wind direction at the Beverly Hills RAWS. Source: FireFamily Plus

Knowledge of the specific locations of elevated fire hazard can allow fire managers or private property owners to develop hazard mitigations plans to address these localized conditions. Table 3 summarizes the 97<sup>th</sup> percentile hazard classifications.

Modeled Flame Length (feet)	Hazard Rating	Percent of City	Percent of Buffer
0	-	91.43%	55.62%
0.1 - 4	Low	4.88%	17.81%
4.1 - 8	Moderate	3.31%	16.50%
8.1 - 11	High	0.08%	1.83%
11.1 - 20	Very High	0.07%	2.21%
20.1 +	Extreme	0.23%	6.04%

Table 3. Breakdown of the hazard classification for 97th percentile weather conditions.

**Assessment 2.** The second hazard assessment is designed to represent a Santa Ana wind event, where strong northerly winds affect wildfire behavior. At the request of the Fire Chief to develop a “worst case” assessment, a search of the weather records from the RAWS was conducted to identify the strongest winds recorded in the twenty year analysis period. Records indicate that the strongest 10-minute average winds recorded at the RAWS were 32 mph on April 12, 2007, however the RAWS does not archive wind gust data, so no information was available for that criterion. An article in the Los Angeles Times did indicate that wind gusts of 61 mph occurred in Beverly Hills during a winter storm on January 31, 2016. (L.A. Times, 2016). While the winds referenced in the article were associated with an El Niño supported winter storm, they are used in the hazard assessment as a basis for establishing an upper threshold for wind speed in this “worse case” scenario.

The wind direction used in this assessment was based on data recorded at the Beverly Hills RAWS during the 2017 Skirball fire. During the fall of 2017 a large scale Santa Ana event affected much of southern California and the wind direction recorded at the RAWS during the Skirball fire provides an indication of how Santa Ana winds potentially blow through the City. For the assessment winds used in the model

Based on the user specified inputs and inputs obtained directly from the LANDFIRE landscape file, FlamMap generates spatial data which can be used in a Geographic Information System, to develop a map of the classified fire hazard at a resolution of 30 meters x 30 meters (100' x 100'). The assessment shows the primary fire hazard is located on lands outside but adjacent to the City (Appendix A-1). Portions of the City immediately east of Franklin Canyon Reservoir, and the Trousdale neighborhood east of Carla Ridge Road, are exposed to the highest hazard. This hazard rapidly decreases within the built environment and irrigated landscape of the City.

A small number of enclaves within the City generated Very High or Extreme hazard ratings.

were set at 61 mph from the northwest (330° azimuth). The 97<sup>th</sup> percentile fuel moisture data were used to populate the remainder of the model inputs.

Table 4 summarizes the outputs from the model and shows the breakdown of the hazard classes for both the City and the surrounding buffer. Increases in fire hazard can be seen across the landscape as wind speed increases, but the areas identified as the highest hazard in the previous assessment continue to show the greatest potential fire hazard as the winds increase and change direction (Appendix A-2).

Modeled Flame Length (feet)	Hazard Rating	Percent of City	Percent of Buffer
0		74.40%	41.46%
0.1 - 4	Low	17.72%	17.45%
04.1 - 8	Moderate	1.23%	5.64%
08.1 - 11	High	1.83%	9.58%
11.1 - 20	Very High	3.31%	12.38%
20.1 +	Extreme	1.52%	13.50%

Table 4. Breakdown of the hazard ratings for the offshore wind hazard assessment.

### CROWN FIRE AND SPOTTING

**Crown Fire** - Crown fire is defined as a fire that advances from top to top of trees or shrubs more or less independent of a surface fire ([www.nwcg.gov/glossary](http://www.nwcg.gov/glossary)). FlamMap has the capability to determine the potential of a crown fire developing at any point on a landscape by evaluating surface fire intensity and the crown base height and crown bulk density of the trees above the surface fire. Lower crown base heights facilitate ignition of the crown fuels by the surface fire, while crown bulk density is used to determine the development and spread of crown fires (Smith, 2013) (Figure 3). A canopy bulk density of less than 0.11kg/m<sup>3</sup> is the threshold within the model where crown fire spread does not develop (Frame, 2011).

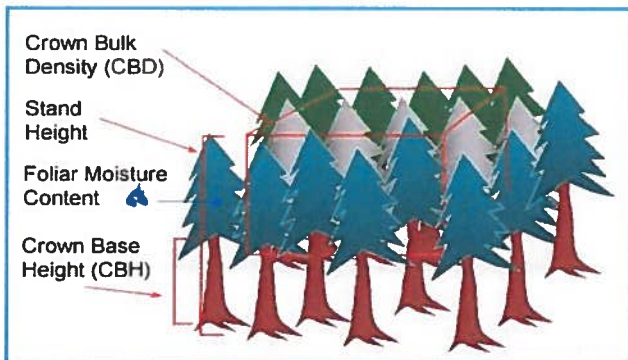


Figure 3. Canopy characteristics used to assess crown fire potential.

FlamMap classifies crown fire into three categories; surface fire, passive crown fire and active crown fire. A *surface fire* classification indicates that canopy vegetation will not support fire, while *passive crown fire* indicates that canopy vegetation may become involved with fire, but will not spread independent of the surface fire. This is commonly referred to as "torching". Finally, *active crown fire* has the potential to move independently of the surface fire's supporting heat.

An evaluation of the crown bulk density within the administrative boundary of the City shows that very few locations exceed the threshold for crown fire initiation (Appendix A-3) and therefore crown fire potential within this portion of the analysis area is minimal. Table 5 shows the total number of acres of the analysis area that are capable of supporting crown fire, while Appendices A-4 and A-5 spatially display where crown fire was modeled to occur within the analysis area. Virtually no active crown fire (less than 0.2 acres) was modeled within the analysis area.



<b>Crown Fire Potential – 97<sup>th</sup> Percentile Weather</b>	<b>Acres</b>	<b>Percent</b>
<b>Inside Beverly Hills City (N of Sunset)</b>	<b>1,289.27</b>	<b>100%</b>
No fire	953.50	73.96%
Surface Fire	335.62	26.03%
Passive Crown Fire	0.15	0.0%1
<b>Outside Beverly Hills Administrative Boundary (2mi buffer - N of Sunset)</b>	<b>10,572.36</b>	<b>100%</b>
No fire	4,261.28	40.31%
Surface Fire	6,293.52	59.53%
Passive Crown Fire	17.40	0.16%
Active Crown Fire	0.15	0.0%
<b>Crown Fire Potential – Offshore Winds</b>	<b>Acres</b>	<b>Percent</b>
<b>Inside Beverly Hills City (N of Sunset)</b>	<b>1,289.27</b>	<b>100%</b>
No fire	955.18	74.09%
Surface Fire	323.75	25.11
Passive Crown Fire	10.34	0.80
<b>Outside Beverly Hills Administrative Boundary (2mi buffer - N of Sunset)</b>	<b>10,572.36</b>	<b>100%</b>
No fire	4,281.88	40.50%
Surface Fire	6,071.10	57.42%
Passive Crown Fire	186.50	1.76%
Active Crown Fire	32.88	0.31%

Table 5. Modeled crown fire potential for both 97th percentile weather conditions and offshore winds.

**Spotting** – The Maximum Spotting Distant feature of FlamMap was used to evaluate how spot fires might impact the analysis area. The spotting feature of FlamMap tends to under predict spot fires as the underlying models used in FlamMap were developed primarily for forest fuel types. Because of this bias in the model, spotting distances from shrub dominated fuel types are often under represented, as spotting occurs only in timber dominated fuel types where passive or active crown fire is modeled (McHugh, 2012).

Given the limited amount of crown fire activity modeled for the analysis area, it is not unexpected that spotting is also limited. Appendix A-5 displays where spotting from overstory vegetation has a probability of occurring, while Table 6 displays the maximum spotting distances derived from the model.



Max Spotting Distance - 97th Percentile	Percent
<b>Inside Beverly Hills City (N of Sunset)</b>	
0 ft.	100.00%
<b>Outside Beverly Hills Administrative Boundary (2mi buffer) (N of Sunset)</b>	
0 ft.	99.90%
01-200 ft.	0.02%
201-400 ft.	0.07%
401-600 ft.	0.01%
Max Spotting Distance – Offshore Winds	Percent
<b>Inside Beverly Hills City (N of Sunset)</b>	
0 ft.	99.99%
801-1,000 ft.	0.01%
<b>Outside Beverly Hills Administrative Boundary (2mi buffer) (N of Sunset)</b>	
0 ft.	99.35%
01-200 ft.	0.00%
201-400 ft.	0.08%
401-600 ft.	0.17%
601-800 ft.	0.11%
801-1,000 ft.	0.11%
1,401-1,600 ft.	0.03%
1,601-1,800 ft.	0.01%
1,801-2,000 ft.	0.00%
1001-1,200 ft.	0.07%
1201-1,400 ft.	0.05%

Table 6. Maximum spotting distances for 97th percentile weather conditions and off shore wind conditions. The Maximum Spotting Distance feature in FlamMap has a bias that under predicts spotting from shrub dominated fuel types.

A different method of looking at spotting is to use the Maximum Spot Distance feature of Behave Plus, a non-GIS based fire model. Behave Plus allows for spotting distances to be calculated from wind driven surface fires, which is more representative of shrub dominated fuel types. However, since the program is not GIS based, it cannot provide insights into where firebrands may be generated or where they are likely to land. Table 7 displays the maximum spotting distances for a variety of wind speeds. Inputs used in the model assumed 20-foot flame lengths and the environment conditions found near the intersection of Carla Ridge Road and Loma Vista Drive in the Trousedale area of the City.

Wind Speed (mph@20-feet)	Maximum Spotting Distance (miles)
20	0.7
30	0.9
40	1.1
50	1.3
60	1.4

**Note:** During the 2017 Thomas fire in Montecito, the maximum spotting distance identified was 0.75 miles (Kolden, 2018). The 10-minute average wind speeds at the Montecito #2 RAWS on December 16, 2017 ranged between 11 and 36 mph. Stronger gusts were probable, but not recorded by the RAWS.

Table 7. Maximum spotting distances obtained from Behave Plus, a non-GIS based fire model.

## FIRE DAMAGE POTENTIAL

Three separate fire simulations were run using FARSITE, a fire spread simulation model, in order to provide some insight into the potential impacts that a wildfire may cause within the City of Beverly Hills. Based on information from the hazard assessment, it was determined that the greatest threat to the City is from a fire burning into the community from the north. For that reason, two simulations were run with ignition points north of the City. A third simulation was run with an ignition point within the City using onshore winds and 97<sup>th</sup> percentile weather conditions. This third simulation should be considered the most representative of summer burning conditions.

**Simulation 1 - Lake Drive and Franklin Canyon Drive.** This simulation focuses on the west side of the community. At the request of the Fire Chief, winds were increased above speeds recorded at the Beverly Hills RAWS during the 2017 Skirball fire and are more representative of the winds that were occurring on the Thomas fire near Montecito at this same time. Winds used during the 16-hour simulation ranged from 25 to 38 mph, while wind direction was varied from northwest to northeast. Fuel moistures used in the simulation are the 97<sup>th</sup> percentile moistures from the hazard assessment.

**Outcomes** – The fire begins to interact with the built environment of the City within the first 2-hours after ignition, with over 30% of the total acres burned occurring within this first two hours period. (Appendix - A-6). Very little lateral spread occurred as the fire was directed by the strong northerly winds. As the simulation moved the fire into the City, fire spread slowed as the continuous fuels outside of Beverly Hills gave way to unburnable roads and irrigated landscapes. The final fire simulated fire size was 655 acres with Table 8 showing the fire growth over the duration of the simulation. For comparison purposes, the 2017 Skirball fire was contained at 422 acres.

Franklin Canyon and Lake Drive Ignition Point - 16-hour Fire Simulation			
Elapsed Time (hours)	Acres Burned	Elapsed Time (hours)	Acres Burned
2	185	10	419
4	247	12	476
6	307	14	555
8	344	16	633

Table 8. Modeled acres burned during the Franklin Canyon and Lake Drive fire simulation

**Simulation 2 – Mullholland Drive and Hazen Drive.** This simulation focuses on the Trousdale area of the City. The same input data as simulation 1 is used.

**Outcomes** – In this simulation more than 6-hours passes before the fire begins to effect the built environment of the City. As with Simulation 1, very little lateral spread occurred given the controlling

influence of the northerly winds. In this simulation the fire skirts the west side of the Trousdale neighborhood, seeking continuous fuels to support fire spread. The final fire size was 242 acres, with Table 9 showing the fire growth over the duration of the simulation. Appendix A-6 shows the simulated fire perimeter.

Mullholland Drive and Hazen Drive Ignition Point - 16-hour Fire Simulation			
Elapsed Time (hours)	Acres Burned	Elapsed Time (hours)	Acres Burned
2	11	10	160
4	54	12	215
6	95	14	232
8	119	16	242

Table 9. Modeled acres burned during the Mulholland Highway, Haven Road fire simulation

**Simulation 3 – Hillcrest Road and Barrie Drive** – This simulation looks at the effects on the community of a fire starting within the City under elevated summer fire season conditions. Wind speeds used in the model follow diurnal patterns, with up canyon south and southwest winds modeled during the daylight hours, and down canyon winds modeled in the evening and early morning hours. Wind speeds are based on 97<sup>th</sup> percentile data from the Beverly Hills RAWs and vary between 5 and 13 mph during the simulation. Fuel moistures used in the simulation are the 97<sup>th</sup> percentile moistures from the hazard assessment.

**Outcomes** – Given the proximity of the ignition to the built environment of the City, the fire quickly begins to effect improvements. However, even under elevated summer burning conditions the fire shows little ability to spread through the urban and irrigated landscape (Appendix A-6). While fire spread is controlled by the urban environment surrounding the ignition, this does not mean that localized damage to improvements is not possible. As with most fires in the urban environment, ember cast represents the greatest threat to structures. A single ember from a wildfire landing on a receptive fuel or finding an entry point into a building can lead to the loss of that structure.

Table 10 shows fire growth during the 16-hour simulation.

Hillcrest Drive and Barrie Road Ignition Point - 16-hour Fire Simulation			
Elapsed Time (hours)	Acres Burned	Elapsed Time (hours)	Acres Burned
2	3	10	23
4	14	12	23
6	19	14	24
8	21	16	24

Table 10. Modeled acres burned during the Hillcrest Drive, Barrie Road fire simulation

## IMPLICATIONS OF THE URBAN FOREST

The City maintains an inventory of nearly 24,000 trees that are the responsibility of the City for care and maintenance (City of Beverly Hills, 2018). These trees, as well as those found on private property create the urban forest that contributes in-part to the environmental setting which makes Beverly Hills such a desirable community. The City's urban forest is primarily associated with roadways and City owned open spaces. The vast majority of these areas are irrigated and are maintained in a state such that the hazard assessment indicates only a low potential for crown fire development.

According to the Fire Department a concern has been raised from some community members that the presence of certain species of trees within the City represents an elevated fire risk and therefore should be removed from the landscape. Species of *Pinus*, *Eucalyptus*, *Cupressus*, and *Acacia* have been identified as the trees of greatest concern.

The ability to transfer fire from surface fuels into the canopy of a tree has been shown to be a factor of the height of the live crown above the surface, the intensity of the surface fire and the foliar moisture of the needles or leaves of the tree. In 1977 Canadian fire researcher C.E. Van Wagner published the first study on the initiation of crown fire. His model still underpins the *Crown Fire Potential* model in both FlamMap and FARSITE.

By using the modeled flame length from the hazard assessment as a representative of surface fire intensity and a foliar moisture of 110% or greater to account for the foliar moisture of irrigated landscapes, Figure 6 can be used to determine the height that the live crown of trees could be pruned to mitigate the potential of a fire transitioning from the surface into the canopy of a tree. The crown fire initiation model does not address any impact on the health of trees should pruning be undertaken and a certified arborist should be consulted to determine the impacts on specific tree species.

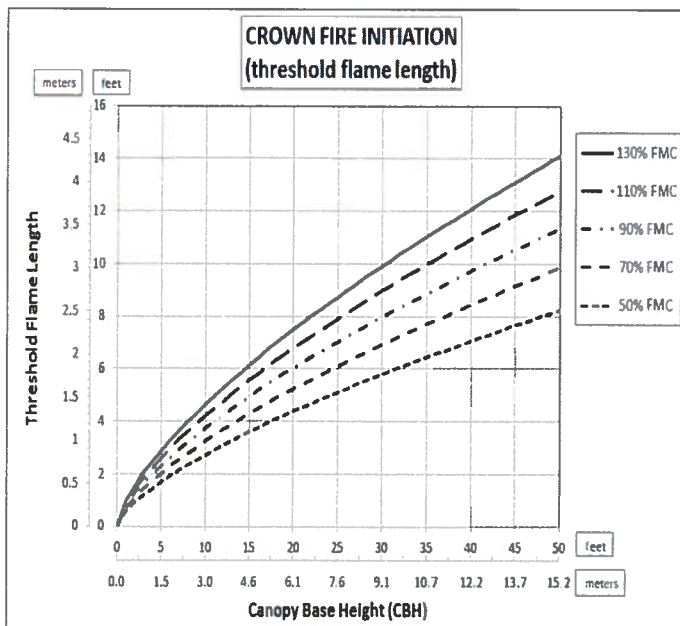


Figure 4. Van Wagner's (1977) crown fire initiation model.

may burn during a wildfire, and that no vegetation is fire-proof in all cases. In a 2005 publication, *Protecting and Landscaping Homes in the Wildland Urban Interface*, it is stated that “*There are no fire proof plant materials. Landscape maintenance and plant care (pruning and watering) is far more important than the selection of fire-resistive versus fire-prone plant materials*” (Barkley, Schrempf, Cohen, 2005).

The following are characteristics of the four identified tree types which make them less desirable in areas prone to wildfires.

## TREES OF CONCERN

At the request of the City, a review of the street trees under their management was conducted to determine if certain species which may be considered fire propagators exists within the City's tree inventory. Four primary genus of tree, *Pinus*, *Eucalyptus*, *Cupressus* and *Acacia*, widely considered to be undesirable within the Home Ignition Zone (100' of a building or structure) and along primary travel routes used as evacuation corridors were identified. As the City conducts tree maintenance, or considers an update to the Street Tree Master Plan, these particular trees may be considered for replacement over time.

It is important to note that all vegetation, including ornamental landscaping and trees



***Pinus spp. (Pines)*** - Of the 1,553 trees of the genus *Pinus* north of Sunset Boulevard within the City with Aleppo Pine and Canary Island Pine dominating the tree inventory. Both species are native to Mediterranean counties, are drought tolerate and can tolerate pruning to lift the live canopy base (Martin, 2018).



Figure 5. Canary Island pine along Lago Vista Drive off of Coldwater Canyon

Canary Island Pine is one of few pines that reproduces by buds. This characteristic can be seen along Coldwater Canyon, where budding is occurring at locations where lower branches have been pruned. Many latent buds survive just under the bark and will grow when stimulated by pruning of the old wood (Hodel, D.R., UC Cooperative Extension, <http://ucanr.edu/sites/UrbanHort/files/80132.pdf>). This budding characteristic requires ongoing maintenance to keep the live crown lifted above surface fuels.

In general pines, (and nearly all conifers), have many characteristics that contribute to increased flammability when compared to most broad-leaf trees. Junipers, pines spruces and firs are resinous and highly flammable (University of California Department of Agriculture and Natural Resources, 2007). The oil from fallen needles and shade from the canopy of pines can also suppress the growth of native plants. Species of pines are noted for their extreme flammability in part due to, fine fuels, and/or volatile resins within the leaves and wood and are not recommended for planting in areas of high fire hazard (Knutson-Pederson, 2005).

The San Diego County Department of Planning and Land Use and Fire Safe Marin both classify pines of any species as undesirable in fire prone locations. Santa Barbara City Ordinance 5779 prohibits the planting of any *Pinus* species within their identified high fire hazard areas. This guidance from other jurisdictions should be considered when the City updates the Street Tree Master Plan in the future.

***Eucalyptus spp. (Eucalyptus)*** – The City identifies 435 *Eucalyptus* north of Sunset on their tree list, with Blue Gum and Desert Gum Eucalyptus comprising 82% of this total. Generally viewed as a wildfire hazard, fire researchers in Australia found that live blue gum leaves were somewhat resistant to combustion, but that dead leaves and surface debris were highly flammable and the most energy-rich component of the tree. (Dickerson, Kirkpatrick, 1985).



Figure 6. A well-managed small stand of *Eucalyptus* west of Carla Ridge Road.

The implication for the City and property owners concerning *Eucalyptus* trees is that maintenance of the understory debris and litter cast is important to managing the fire risk. Well maintained and irrigated individuals or small groups of *Eucalyptus* do not necessarily present a fire risk simply by their presence in the landscape (Figure 5). However, trees left in an unmanaged condition can present an elevated fire hazard.

That being said, Eucalyptus is a tree widely considered undesirable in wildfire prone locations. The Los Angeles County Fire Department, Forestry Division, will not accept fuel modification plans that retain Eucalyptus on the landscape. Both Fire Safe Marin and the San Diego County Department of Planning and Land Use list these trees as undesirable species. The California Invasive Plant Council consider blue gum and red gum eucalyptus invasive species in the South Coast Region of California. For these reasons the City may consider removing these trees from Very High Fire Severity zones over time.

***Cupressus spp. (Cypress)*** - Believed to be a propagator of wildfire, Cypress is a common landscape tree in Beverly Hills, with the City identifying 30 trees under their management north of Sunset. A native of Mediterranean countries, Italian Cypress as used in landscaping, traditionally retain their full live canopy which extends to the ground. The full-length canopy of Italian Cypress does not provide a separation of the canopy from the surrounding surface fuels. This characteristic can easily lead to fire being transferred from the ground to the crown of the tree (Figure 7). The tight, compacted growth form of the tree also allows for the retention of dead material in the canopy, which is more likely to ignite than live canopy vegetation. For these reasons Italian Cypress has been identified as a tree which is not acceptable in any Fuel Modification Plan submitted to the Los Angeles County Fire Department (County of Los Angeles, 2018). The City may wish to consider removing these trees over time, especially within non-irrigated landscapes and within the Very High Fire Severity Zone.

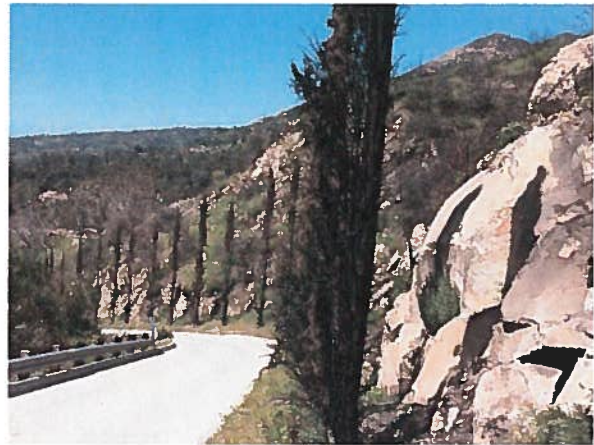


Figure 7. Burned Italian Cypress line a driveway along Park Lane in Montecito following the Thomas Fire, 2017

***Acacia spp. (Acacia Tree)*** The City maintains 92 Acacia trees, representing six different species of the genus with Black Acacia the dominant species on the City's tree inventory. Identified as a weed tree of "limited" concern by the California Invasive Plant Council, Acacia in other regions where it has colonized can form dense stands and is known to burn fiercely (Queensland Government, 2011). The University of California Division of Agriculture and Natural Resources states that several woody invaders such as salt cedar, acacia and eucalyptus "readily burn and recover shortly after fire".

The City of Santa Barbara in Ordinance 5779 prohibits the planting of Acacia species in high fire hazard areas and Fire Safe Marin as well as the County of San Diego Planning and Land Use both list Acacia species as undesirable in a fire prone landscape.

## FIREWISE COMMUNITY RECOMMENDATIONS

Beverly Hills is currently recognized as one of more than 1,500 FireWise USA communities nationally. The FireWise USA program recognizes municipalities that have taken actions that minimizes the potential of home loss during a wildfire and places requirements on recognized communities to continue their proactive stance in enhancing the wildfire resiliency of their community. As part of the program, FireWise USA requires an updated community wildfire hazard assessment every five years. This hazard assessment meets the program's requirement.

Beyond the wildfire hazard assessment, FireWise USA also requires the development of an implementable Action Plan that addresses the susceptibility of a community to wildfire. What follows

are recommendations that the Fire Department and community leaders may consider as part of any action plan to address the wildfire hazards identified in this assessment.

1. Work to develop fuel treatment partnerships with jurisdictional fire agencies bordering Beverly Hills. These agencies include Los Angeles City Fire Department, Los Angeles County Fire Department and the National Park Service.

The hazard assessment indicates that the greatest threat to the City is from a wildfire burning into the community from another jurisdiction. By treating fuels adjacent to the City it is possible to increase the potential survivability of structures within the City during a wildfire. The primary fire hazard areas adjacent to the City are the lands east and north of Franklin Canyon Reservoir and lands west of Carla Ridge Road in Trousedale. Through partnership with other agencies the City could enhance the defensibility of structures near these jurisdictional boundaries.

2. Conduct site specific evaluations of parcels within the City where the offshore wind hazard assessment indicates flame lengths in excess of 11 feet. This level of fire intensity represents a threshold where firefighters have a reduced potential to successfully suppress a wildfire. Following an evaluation of these locations by a fire professional; work with the property owner to design vegetation treatments which will allow the owner to reduce the wildfire intensity at these locations.

3. Evaluate the Greystone Mansion public use areas, including the parking facilities to reduce the potential of an accidental ignition and to mitigate potential fire behavior (Figure 8). Actions may include clearing dry grasses, chipping dead and down vegetation, pruning low branches from trees and reducing the horizontal continuity of shrubs within areas of native vegetation.



Figure 6. Parking lot at Greystone Mansion.

4. Evaluate City owned properties for potential fuel treatments which can serve as a demonstration areas for wildfire hazard mitigation work. Demonstration areas provide residents an opportunity to see how they might implement actions on their private property to reduce the fire hazard.
5. Develop educational material for property owners on how they can manage their landscape trees to be more fire resilient. This educational material should focus on maintaining tree health and vigor and creating a separation of tree canopies from surface fuels. These action should help mitigate the potential of individual trees becoming involved in fire during a wildfire. Consider making an arborist or wildfire specialist available for consultation with residents interested in maintaining a more fire resilient landscape.



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## APPENDIX A – Map Products

**A-1 – Potential Flame Lengths Associated with 97<sup>th</sup> Percentile Weather Conditions**

**A-2 – Potential Flame Lengths Associated with Offshore Weather Conditions**

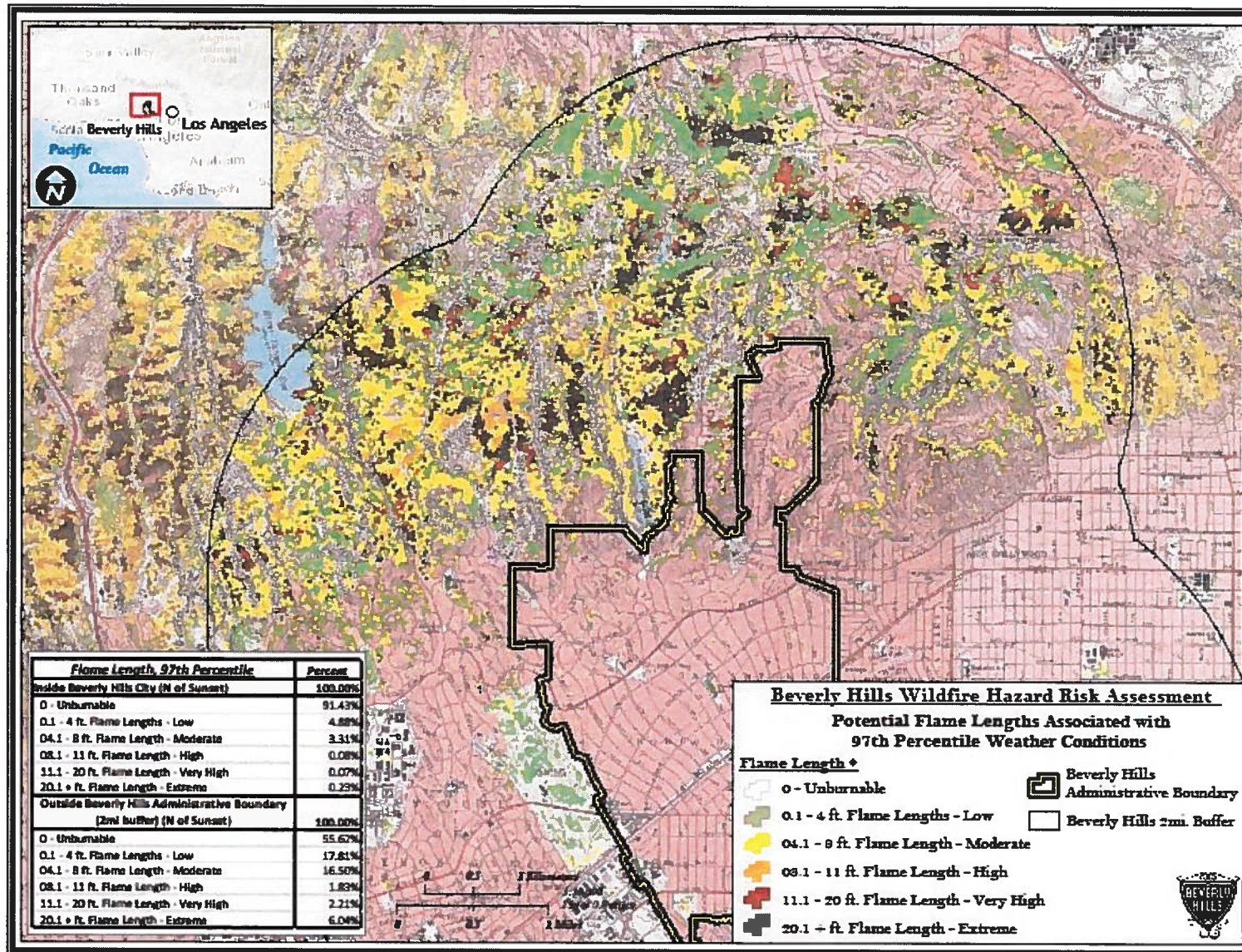
**A-3 – Canopy Bulk Density - 0.11 kg/m<sup>3</sup> and greater**

**A-4 – Potential Crown Fire Associated with 97<sup>th</sup> Percentile Weather Conditions**

**A-5 – Potential Crown Fire Associated with Offshore Weather Conditions**

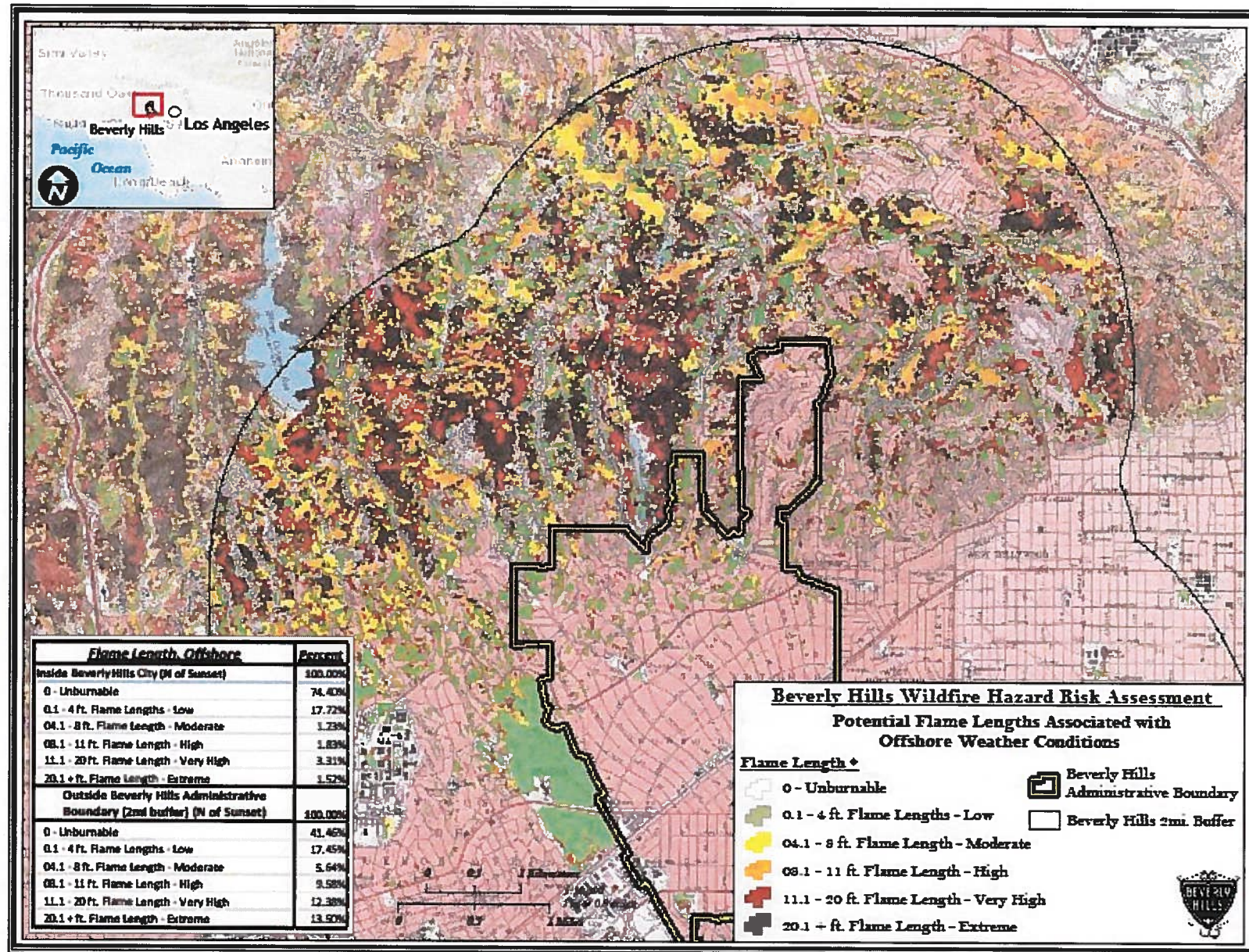
**A-6 – Time of Arrival – Three fire modeling scenarios**

**A-7 – Fire History with Fire Ignitions – 1975 - 2017**

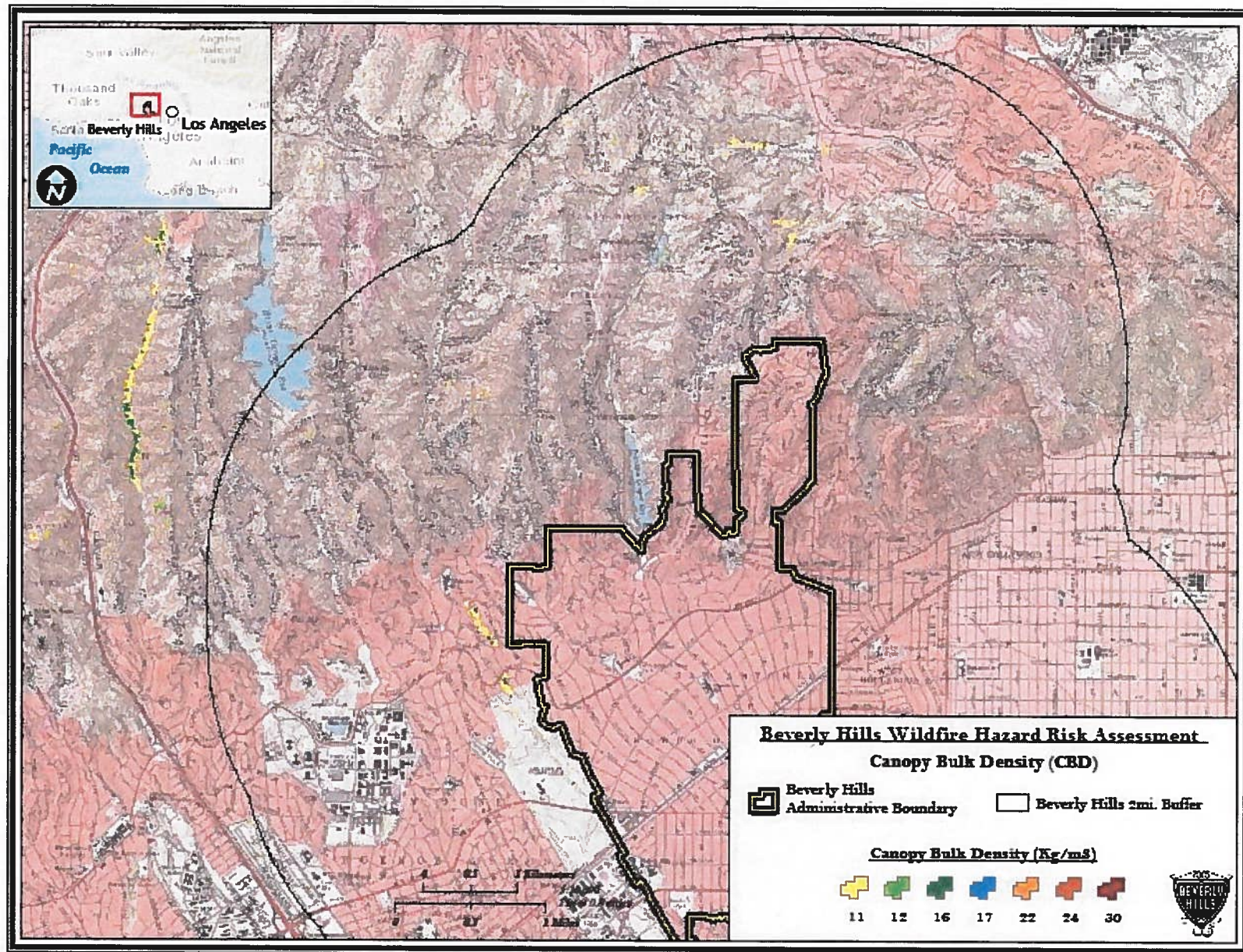


A-1

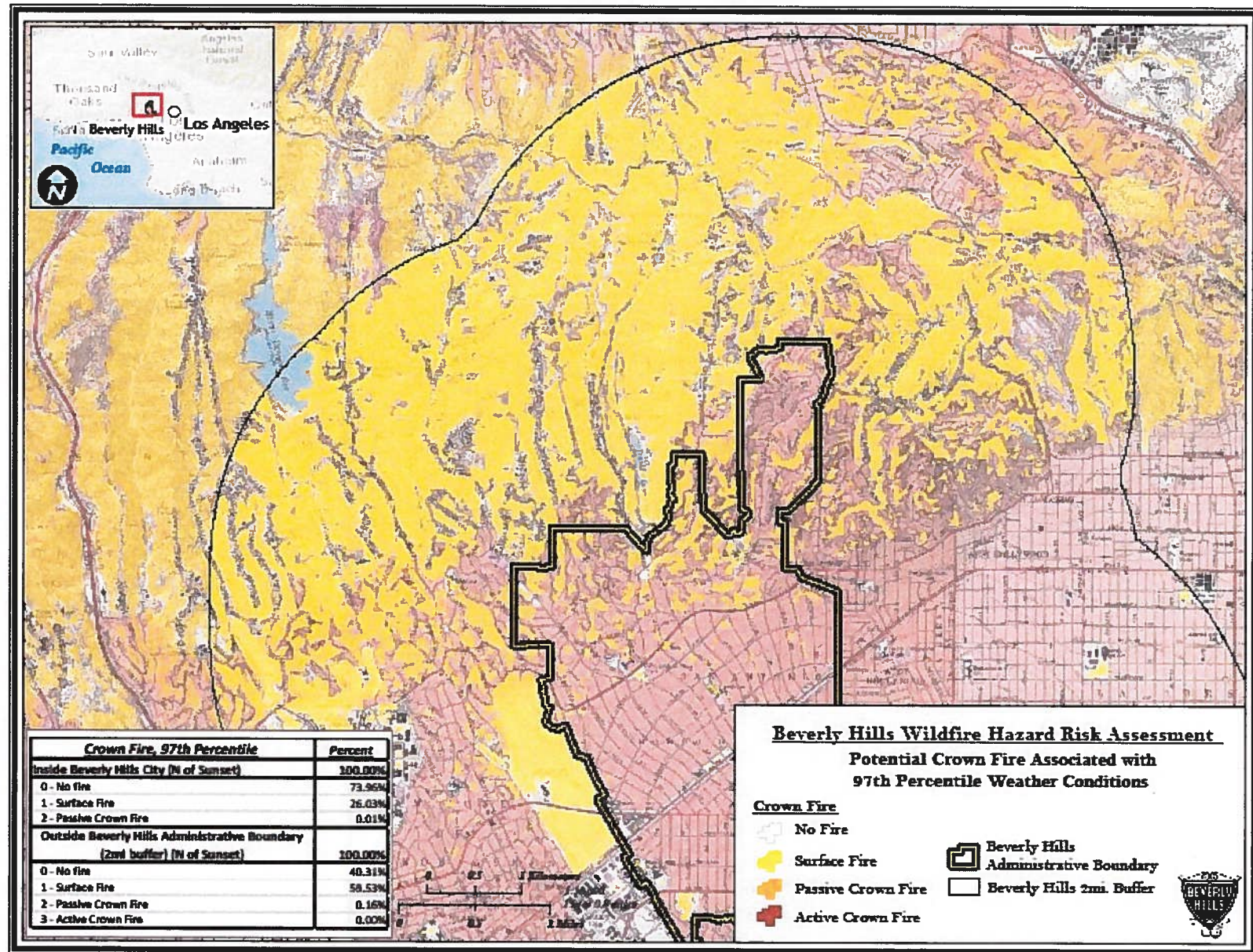




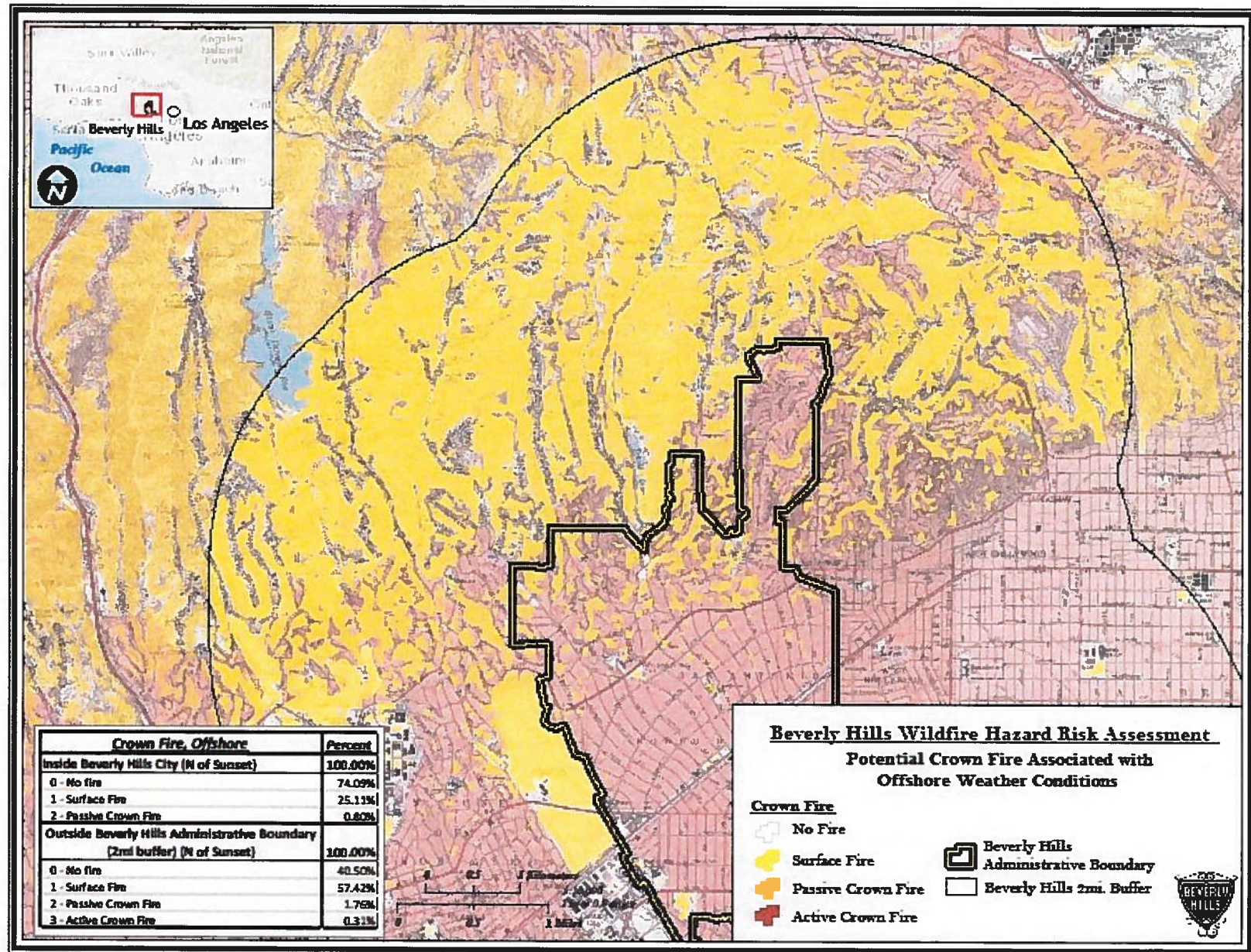




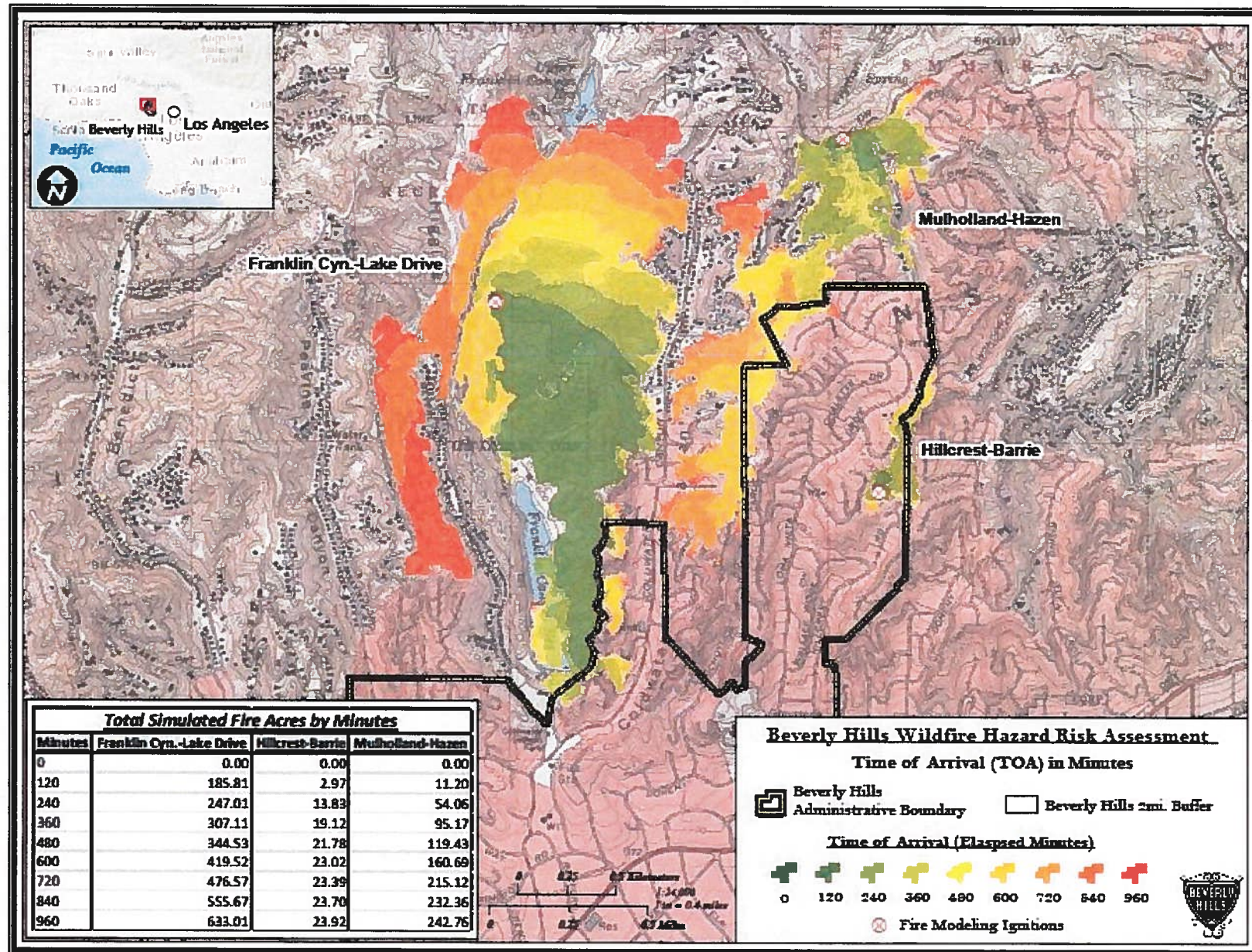
















## **Attachment 2**

# View Restoration Guidelines

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- 1. PURPOSE**
- 2. ALTERNATIVE DISPUTE RESOLUTION**
  - A. Private Agreements**
  - B. Binding Arbitration**
- 3. KEY TERMS**
- 4. TROUSDALE VIEW RESTORATION PROCESS OVERVIEW**
- 5. VIEW RESTORATION PROCEDURES**
  - A. Safe Harbor Exemption**
  - B. Initial Neighbor Outreach**
  - C. Mediation**
- 6. CONTINUATION OF VIEW RESTORATION PROCESS AFTER AGREEMENT**
- 7. PERMIT REQUIRED FOR REMOVAL OF CERTAIN TREES**
- 8. CITY ADVISORY OPINION**
- 9. TROUSDALE VIEW RESTORATION PERMIT PROCESS (Public Hearing)**
- 10. LANDSCAPE STANDARDS FOR TROUSDALE ESTATES**

## **ATTACHMENTS**

- 1. Trousdale View Restoration Ordinance**
- 2. Private Agreement Form**
- 3. Glossary of Terms**
- 4. Initial Neighbor Outreach: Notice (4a) and Affidavit Templates (4b)**
- 5. Mediation: Notice (5a), Information Form (5b) and Affidavit Template (5c)**
- 6. Tree Removal Permit Application**
- 7. City Advisory Opinion: Application**
- 8. View Restoration Permit Application: Application (8a) and Findings (8b)**
- 9. Restorative Actions**
- 10. Fees**
- 11. Enforcement**



# View Restoration Guidelines

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## 1. Purpose

The Trousdale View Restoration Ordinance was adopted by the City Council on December 6, 2011 (**Attachment 1**). The intent of the ordinance is to encourage Trousdale neighbors to reach early resolution when addressing restoration of views that have been substantially disrupted by foliage growth on neighboring properties. The purpose of the View Restoration Guidelines is to assist Trousdale property owners in understanding and using the Trousdale View Restoration Ordinance. The Guidelines provide a step-by-step guide to the view restoration process adopted in the City's ordinance. Neighbors may find compromise solutions outside of the City's view restoration process; however, if a property owner wishes to preserve the opportunity to apply to the City for a decision in a view restoration case, the City's view restoration process must be followed. A public hearing is considered a last resort to resolve view blockage issues, in part because of increased cost and time for all property owners. To encourage early resolution of disputes, the process is set up so that Foliage Owners do not incur any cost if they participate in the early steps of the process, but Foliage Owners do incur cost if a View Owner is granted a View Restoration Permit by the Planning Commission.

Neighbors are advised that while the ordinance is intended to help restore views, the ordinance also acknowledges a balance between views and the importance of residential privacy and security, maintaining the garden quality of the City, insuring the safety and stability of the hillsides, and trees and vegetation in the City as an integral part of a sustainable environment. Neighbors are advised to be mindful of other neighbors' concerns, to be cordial, and are encouraged to find compromise solutions.

The ordinance applies to foliage that meets the following criteria:

- located on a property in Trousdale within 500 feet of a View Owner's property
- alleged to block a view of the Los Angeles area basin. (This includes city lights and views toward the ocean but does not include ridges or canyons not located in a line of sight to the Los Angeles area basin.)
- growing above the Safe Harbor Exemption Area (See page 6).

The Guidelines reference sections of the Trousdale View Restoration Ordinance which is part of the Beverly Hills Municipal Code (BHMC), Sections 10-8-101, *et seq.*, and available online at the City's website, [www.beverlyhills.org](http://www.beverlyhills.org). The City's website includes a webpage for the Trousdale View Restoration Ordinance and all applicable documents, all of which can be accessed at [[include web link here for View Restoration web page](#)].

## View Restoration Guidelines

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### 2. Alternative Dispute Resolution

**Private Agreements.** Neighbors are encouraged to resolve view obstruction issues among themselves. Neighbors may agree to allow foliage to grow higher than the limits set in the Trousdale View Restoration ordinance so long as there are no health and safety issues (e.g. maintaining trees that are diseased and unstable or foliage that blocks traffic visibility) and so long as the foliage is not maintained in violation of other City codes, such as the City's hedge height regulations, so that it negatively impacts neighbors. **Attachment 2** to the Guidelines is a private agreement template neighbors may use and modify to suit their needs. The City would not be a party to private agreements and would not monitor or enforce such agreements.

To encourage private agreements, the ordinance allows a View Owner who enters into a private agreement with a neighboring Foliage Owner pursuant to the Initial Neighbor Outreach or Mediation steps, to resume the City's view restoration process if the private agreement proves unsuccessful (see Section 6. "Continuation of View Restoration Process after Agreement").

**Binding Arbitration.** Neighbors have the option, at any time, to agree to binding arbitration as an alternative to the City view restoration process. Additional information on the arbitration process (alternative dispute resolution) is available through the following source:

Los Angeles County Superior Court - <http://www.lasuperiorcourt.org/adr/forms/LAADR005.pdf>

## View Restoration Guidelines

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### 3. Key Terms

The Guidelines use a number of terms defined in the Trousdale View Restoration Ordinance (Section 10-8-102). Two key terms are defined below and the most commonly referenced terms are included in a Glossary as **Attachment 3** to the Guidelines.

**VIEW OWNER:** Section 10-8-102 (Q) of the View Restoration ordinance define View Owner as follows:

VIEW OWNER: Any owner or owners of real property in Trousdale Estates that has a protectable view and who alleges that the growth of foliage located on a property within five hundred feet (500') of their property is causing substantial disruption of a protectable view. "View Owner" shall include one or more owners of the same property.

The terms "foliage" and "protectable view" are defined in Attachment 3. As stated in the definition above, the foliage alleged to disrupt the view must be located on a property within 500 feet of the View Owner's property. The 500-foot distance is measured from the edge of the View Owner's property. Even if only a small portion of a neighboring property is within 500 feet of the View Owner's property, foliage on all parts of that neighboring property may be subject to the ordinance. A View Owner may need professional assistance to determine if particular foliage blocking a view is located on a Trousdale property with 500 feet of the View Owner's property.

**FOLIAGE OWNER:** Section 10-8-102 (E) of the View Restoration ordinance define Foliage Owner as follows:

FOLIAGE OWNER: An owner of real property in Trousdale Estates upon which is located foliage that is subject to an action filed pursuant to this article and which property is within five hundred feet (500') of a view owner's property. "Foliage owner" shall reference one or more owners of the same property.

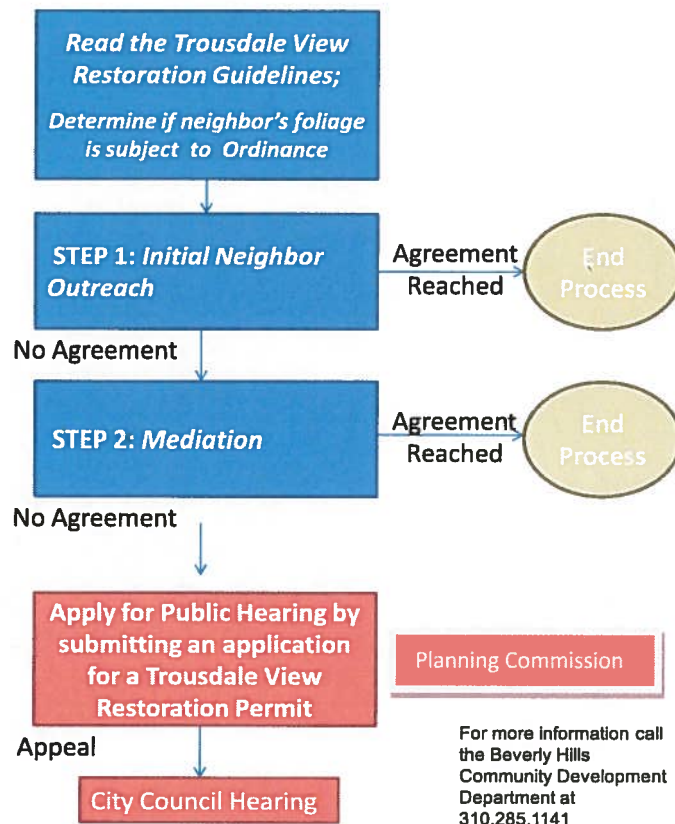


## View Restoration Guidelines

### 4. Trousdale View Restoration Process Overview

#### View Restoration Process Flow Chart

BHMC Title 10, Chapter 8



**Enforcement:** The Trousdale View Restoration Ordinance provides for one-time enforcement of a City View Restoration Permit decision. The first step in City enforcement, the Administrative Penalty process, would be conducted at no charge to the View Owner; however, if enforcement escalates to a City prosecution process, the City's prosecution costs would be paid by the View Owner. The cost could be substantial to the View Owner if the Foliage Owner declines to comply with the City's decision. (See Attachment 11 for additional information.)

**Litigation:** The Trousdale View Restoration Ordinance includes indemnification language that requires an applicant to pay the City's litigation costs if a City decision made on behalf of that applicant is litigated. This cost could be substantial for all parties. It is noted that the City Council is reviewing ways to reduce the financial burden of this requirement on applicants.

## View Restoration Guidelines

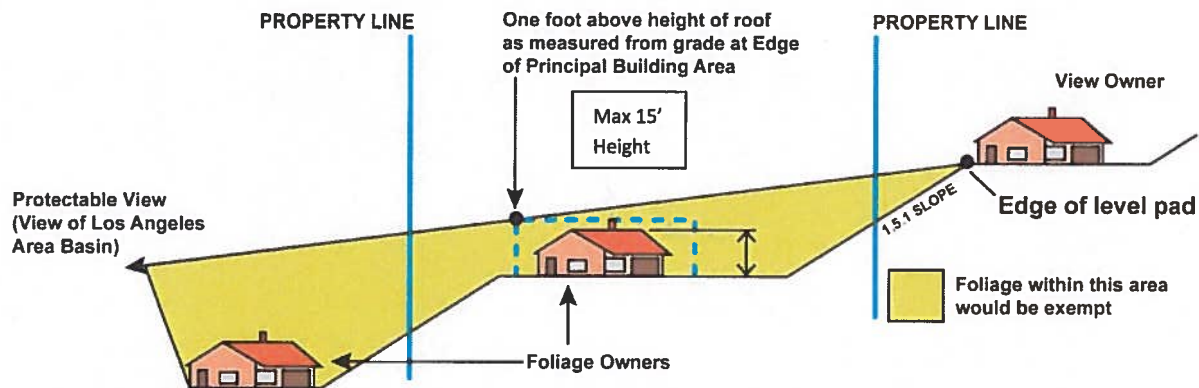
### 5. View Restoration Procedures

Determine if neighbor's foliage is subject to the ordinance

#### 5 A. Safe Harbor Exemption

Not all foliage is subject to the Trousdale View Restoration Ordinance. To create more certainty for property owners, the ordinance defines an area on each property, called the "Safe Harbor Area," where foliage is exempt from the Ordinance. (See illustration below)

#### Safe Harbor Area



Prepared by the Community Development Department

In the illustration above, the View Owner is at the upper right and all foliage growing in the green area is exempt from the Trousdale View Restoration Ordinance, as it relates to the pictured View Owner. The intent was to exempt foliage that is unlikely to substantially disrupt a View Owner's view.

See **Attachment 3** (Glossary) for definitions of "Safe Harbor Plane" and "Safe Harbor Area."

It is the responsibility of the View Owner to pay for any surveys necessary to determine the Safe Harbor Area. A Safe Harbor Survey will be required as part of an application to the Planning Commission for a Trousdale View Restoration Permit.

## View Restoration Guidelines

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### Step 1: Initial Neighbor Outreach

Property owners who wish to use the City's view restoration process must complete Initial Neighbor Outreach and Mediation, before an application may be made for a City public hearing.

#### **5 B. Initial Neighbor Outreach** (See **Attachment 4** for related forms)

Initial Neighbor Outreach consists of the following steps:

##### **1. Contact Foliage Owner(s)**

View Owners are encouraged to contact Foliage Owner(s) by telephone or in person, if possible; however, if agreement is not reached through informal contact, the View Owner must send a notice by certified mail to the Foliage Owner(s) and the View Owner must maintain a return receipt. The notice must be sent to the Beverly Hills street address for the particular property. In addition, the notice must be sent to the official mailing address as represented on the Los Angeles County Assessor's rolls. A View Owner may contact the City at 310.285.1141 for assistance in determining a Foliage Owner's official mailing address so long as the View Owner is able to identify on a map the property on which the foliage is located. It is noted that a View Owner may need professional assistance to determine if particular foliage blocking a view is located on a particular Trowsdale property and whether that property is located within with 500 feet of the View Owner's property.

##### **2. Notice to Foliage Owner(s)**

The Initial Neighbor Outreach notice shall be on the City's form or in a substantially similar format (Notice Template is **Attachment 4a**). The notice must be signed by the View Owner or the View Owner's authorized representative. The notice shall contain the following:

- General description of the View Owner's claim of disruption of a protectable view (identify direction of the view, the foliage alleged to block the view)
- Remedy sought by the View Owner (foliage to be trimmed, removed, etc.; any proposal to replace foliage)
- A good faith estimate of the cost of the remedy and an offer to pay that cost.<sup>1</sup>
- An offer to meet with the Foliage Owner.

It is also recommended that the View Owner provide photographs to the Foliage Owner that illustrate the alleged view disruption.

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<sup>1</sup> This requirement was included because an early offer to pay by the View Owner is an incentive to the Foliage Owner to cooperate at this step to come to a mutually agreeable solution.



## View Restoration Guidelines

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### 3. Foliage Owner's Response

A Foliage Owner's participation in Initial Neighbor Outreach is voluntary. Each Foliage Owner shall have 30 calendar days from service of written notice to respond to the View Owner unless the Foliage Owner either requests a ten business day extension in writing or a different response period is determined by mutual agreement of the View Owner and Foliage Owner.

### 4. Agreement Reached

If a Foliage Owner responds to an Initial Neighbor Outreach notice, the View Owner and Foliage Owner should engage in discussion in an attempt to reach a mutually agreeable solution. If agreement is reached, it is recommended that the parties prepare a private written agreement. See page 3 of the Guidelines regarding "Private Agreements."

### 5. Apportionment of Cost

- **Procedural Costs.** Any costs associated with obtaining information, mailing the required notice, or preparing an agreement shall be borne by the view owner. The view owner shall pay the cost of a view restoration property survey or tree survey if such a survey is completed.
- **Restorative Action.** The cost of restorative action agreed upon by the View Owner and the Foliage Owner shall be borne by the View Owner unless otherwise agreed to by the Foliage owner.
- **Maintenance Cost.** The cost of subsequent maintenance of foliage on the Foliage Owner's property shall be allocated as agreed upon by the parties.

### 6. Non-Response or Agreement Not Reached

If the View Owner and a Foliage Owner are unable to resolve the matter, or if a Foliage Owner fails to respond to the notice during the response period, the View Owner may proceed to Step 2: Mediation. To proceed to Step 2, the View Owner shall provide an affidavit, signed under penalty of perjury, indicating either: that the Foliage Owner participated in the initial neighbor outreach that did not conclude in an agreement between the parties; or, non-response of the Foliage Owner (Affidavit is also attached as **Attachment 4b**).

## View Restoration Guidelines

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### Step 2: Mediation

Property owners wishing to continue with the City's view restoration process but unsuccessful in resolving a dispute through the Neighbor Outreach process, must offer to have the dispute mediated. View owners should maintain a copy of the Initial Neighbor Outreach certified letter sent to the Foliage Owner(s), return receipt, and the affidavit attesting to lack of agreement or non-response of the Foliage Owner at the Initial Neighbor Outreach step. These documents will be required if the View Owner eventually applies for a View Restoration Permit hearing before the Planning Commission.

#### **5 C. Mediation** (See **Attachment 5** for related forms)

Mediation consists of the following steps:

##### **1. Contact Foliage Owner(s)**

View Owners must send a notice by certified mail to the Foliage Owner(s). The notice mailing requirements are the same as for the Initial Neighbor Outreach step (see page 7, "Contact Foliage Owners"). The View Owner must maintain a return receipt.

##### **2. Notice to Foliage Owner(s)**

The Mediation notice shall be on the City's form or in a substantially similar format (Notice Template is **Attachment 5a**). The notice must be signed by the View Owner or the View Owner's authorized representative. The notice shall contain the following:

- An offer to meet with the Foliage Owner and a mediator.
- General description of the View Owner's claim of disruption of a protectable view (direction of the view, generally identify the foliage alleged to block the view)
- Remedy sought by the View Owner (foliage to be trimmed, removed, etc.; any proposal to replace foliage)
- A good faith estimate of the cost of the remedy.

It is also recommended that the View Owner provide photographs to the Foliage Owner that illustrate the alleged view disruption.



## View Restoration Guidelines

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### 3. Foliage Owner's Response

A Foliage Owner's participation in Mediation is voluntary. Each Foliage Owner shall have 30 calendar days from service of written notice to respond to the View Owner unless the Foliage Owner either requests a ten business day extension in writing or a different response period is determined by mutual agreement of the View Owner and Foliage Owner failure to respond shall be considered refusal by the Foliage Owner to participate in mediation.

### 4. Mediation Session

Each mediation session may involve one or more View Owners and one or more Foliage Owners at the discretion of the parties involved. If Mediation is agreed to by a View Owner and one or more Foliage Owners, each party to the Mediation must provide the following materials to the mediator:

- View Restoration Mediation Information Form (**Attachment 5b**)
- Photos of the Properties:

For View Owners: Photos showing the alleged view, the area on the View Owner's property from which the view is observed, and any other areas or features the View Owner chooses to present.

For Foliage Owners: Photos showing the sight line up to the View Owner's property, photos of the foliage in question, and any other areas or features the Foliage Owner chooses to present.

Photographs should reflect the entire view of the Los Angeles area basin from the View Owner's property as would be seen by the natural eye. Photographs should not be taken with fish eye lenses, zoom lenses or other equipment that distorts the view as seen by the natural eye.

- Any other reports or documents the parties wish to present.

A View Owner who wishes to use the City-sponsored mediator (a mediator under contract to the City) shall contact the mediator and submit to the mediator proof of the Initial Neighbor Outreach in the form of a copy of the certified letter sent to the Foliage Owner(s), return receipt, and the affidavit attesting to lack of agreement or non-response of the Foliage Owner. This allows City staff to track use of the City's contract mediator and ensures that parties using the City's contract mediator are bona fide view restoration applicants. Alternatively, the View Owner may use any mediator mutually agreed to by the View Owner and Foliage Owner(s).

The mediator shall not have the power to issue binding orders for restorative action but shall strive to enable the parties to resolve their dispute.

## View Restoration Guidelines

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### 5. Agreement Reached

If an agreement is reached between the parties as a result of mediation, the mediator will encourage the participants to prepare, and can assist in the preparation of, a private agreement for the parties to sign. See page 3 of the Guidelines regarding "Private Agreements."

### 6. Apportionment of Cost

Unless otherwise agreed to by the parties, costs shall be apportioned according to the following:

- **Procedural Costs.** Any costs associated with obtaining information, mailing the required notice, or preparing an agreement shall be borne by the view owner. The view owner shall pay the cost of a view restoration property survey or tree survey if such a survey is completed.
- **Restorative Action.** The cost of restorative action agreed upon by the View Owner and the Foliage Owner shall be borne by the View Owner unless otherwise agreed to by the parties.
- **Maintenance Cost.** The cost of subsequent maintenance of foliage on the Foliage Owner's property shall be allocated as agreed upon by the parties.

### 7. Non-Response or Agreement Not Reached

If the View Owner and a Foliage Owner are unable to resolve the matter through mediation, or if a Foliage Owner fails to respond to the mediation notice or to participate in the mediation process, the View Owner may proceed to file for a View Restoration Permit. To proceed to a View Restoration Permit application, the View Owner shall provide an affidavit, signed under penalty of perjury, indicating either: participation by the Foliage Owner in mediation but lack of agreement; or, non-response of the Foliage Owner (Affidavit is also attached as **Attachment 5c**).

## View Restoration Guidelines

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### **6. Continuation of View Restoration Process after Agreement**

To encourage private agreements, the ordinance allows a View Owner who enters into a private agreement with a neighboring Foliage Owner pursuant to the Initial Neighbor Outreach or Mediation steps, to resume the City's view restoration process if the private agreement proves unsuccessful.

A View Owner may resume the City's View Restoration process at the next step after which a private agreement was entered into, provided that less than two years have passed since the date of the private agreement. For example, if neighbors reach agreement at the Initial Neighbor Outreach step and that agreement is not maintained, the View Owner may proceed to the Mediation step so long as the View Owner can show completion of the Initial Outreach step.

### **7. Permit Required For Removal of Certain Trees**

Please note that trees in the City are protected by the City's ordinance regulating the removal or damage of certain trees on private, single-family residential property. Before any trees are damaged or removed, please consult Beverly Hills Municipal Code Section 10-3-2901. A copy of the City's Tree Removal Permit Application for the removal of protected trees is attached and includes a summary of the City's tree preservation regulations (**Attachment 6**). This application must be completed and submitted to the City's Building Department if any protected trees may be damaged or removed pursuant to an Initial Neighbor Outreach or Mediation process. One of the permitted reasons for removing a protected tree is that "The protected tree proposed for removal is obstructing an existing view of the Los Angeles area basin from a habitable building on the property where such tree is located."



## View Restoration Guidelines

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### **8. City Advisory Opinion** (See **Attachment 7** for forms)

A View Owner has the option to request a non-binding view restoration Advisory Opinion from City staff for a fee. A non-binding opinion is for information purposes only and would not affect any subsequent City decisions regarding a view restoration case. This may be an option for View Owners who are unsure if they have a protectable view that is being substantially disrupted and would like an impartial opinion. It may also be an option for View Owners who do not wish to go through a public hearing process. In both cases, the view owner would gain additional information that may be helpful in working with neighbors to resolve view issues.

The fee for a City Advisory Opinion is included on the list of fees attached (**Attachment 10**). This is the minimum required to cover the City's cost to provide a written opinion to the View Owner. Please note that City fees change each year, usually on July 1.

The request for a City Advisory Opinion would be made on a form provided by the City. It is noted that the written opinion would be a public document available to anyone who requests it.

If a view owner requests and receives a City Advisory Opinion, the View Owner must wait one year (12 months) to apply for a View Restoration Permit. During this 12-month period, the View Owner may complete the Initial Neighbor Outreach and Mediation steps and, if there is no resolution, complete a View Restoration Permit application; however, the application may not be submitted until 12 months have elapsed from the date of the City Advisory Opinion.

## View Restoration Guidelines

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### 9. Trousdale View Restoration Permit Process

Please See **Attachment 8**, the Trousdale View Restoration Permit Application, for forms.

#### **Submitting an Application**

If a View Owner completes the Early Neighbor Outreach and Mediation steps without resolving the view problem, and the View Owner wishes to proceed with a public hearing process, the View Owner may complete and submit a View Restoration Permit application form (**Attachment 8a**) to the Community Development Department with the appropriate filing fees (**Attachment 10**). An application may be submitted by only one View Owner but the application may name one or more Foliage Owners. The addition of foliage owners to an application will increase the application fee as more staff time is involved.

#### **Once a Complete View Restoration Permit Application has been Submitted**

##### **1. Assigned to Planner/Complete Application**

The application is assigned to a planner. The planner determines if the application is complete.<sup>2</sup> The planner will contact the applicant and indicates if the application is complete or incomplete. If incomplete, the planner provides the applicant a list of missing information in writing. Incomplete applications will not be processed until the application is complete. If the applicant does not submit the necessary information and the application remains incomplete for six (6) months, the City shall administratively withdraw the application and return the application materials to the applicant.

Once an application is deemed complete, the following steps shall occur to process the application and prepare for a Planning Commission hearing.

##### **2. Notification of Foliage Owner(s)**

Staff notifies the Foliage Owner(s) in writing, that a formal request for a View Restoration Permit hearing has been filed with the City, attaching a copy of the application, a copy of the View Restoration Guidelines and an authorization form that would allow staff and the Planning

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<sup>2</sup> A View Restoration Permit application is not for a development project and is not subject to the Permit Streamlining Act.

## View Restoration Guidelines

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Commission to visit the Foliage Owner's property. Staff or City officials may visit a Foliage Owner's property only with the Foliage Owner's written authorization. The signed authorization may be emailed to staff by the Foliage Owner.

### **3. Site Visits**

Staff schedules and conducts site visits to the View Owner and Foliage Owner properties. If a Foliage Owner does not permit access to his/her property, the Planning Commission shall review the case using other information as may be available, including information provided by the View Owner. Although a Foliage Owner has discretion as to whether to allow staff or City officials onto his/her property, lack of access to the Foliage Owner's property may make it difficult for staff and the Planning Commission to evaluate issues raised by the Foliage Owner when considering an application.

### **4. Public Notice**

Staff prepares and mails notices to all property owners within 500 feet of the View Owner's property at least 30 days prior to the hearing, using the address labels submitted by the View Owner with the application.

It is noted that pursuant to Planning Commission and City Council direction, it is expected that is public notice requirement will be revised in the near future to include only the parties to the View Restoration Permit application.

### **5. Staff Report**

Staff prepares a staff report to the Planning Commission that includes the following:

- a. Application
- b. Information on each property involved.
- c. Staff analysis of the findings that must be made to issue a View Restoration Permit.
- d. Photos (also included in surveys required in application).
- e. Staff recommendation.

The staff report is distributed to the Planning Commission, applicant and Foliage Owner(s) the week prior to the public hearing date.

### **6. Public Hearing**

Planning Commission public hearings are held on the second and fourth Thursdays of each month. A View Restoration Permit hearing will be preceded by a bus tour, to which members of



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the public are invited. The tour is for the Planning Commission to review the sites involved in the case, and is not an opportunity for interested parties to provide testimony to the Commission.

The Planning Commission may, at its discretion, require the review of any case by a qualified soils engineer, arborist, landscape architect or other appropriate professionals based on the specific conditions of the case. The applicant shall be responsible for these additional costs. Staff will advise the applicant of the estimated cost for additional expert information. If the applicant refuses to pay for that expense, the application will be withdrawn by staff.

After all public testimony has been heard from any interested parties, the Planning Commission closes the public hearing and deliberates. Planning Commission decisions must be supported by substantial evidence in the record before the Commission. The Planning Commission reaches a decision by reviewing the required findings that must be made as set out in the ordinance (Section 10-8-106(I)). All of the findings must be made by the Planning Commission before a View Restoration Permit may be granted. (See **Attachment 8b** for the findings.)

When the Commission reaches a decision, a resolution approving or denying the permit is prepared by staff reflecting the Commission's decision. Resolutions may be prepared in advance of the Planning Commission hearing and revised at the meeting pursuant to Commission direction or may be prepared after the meeting and returned to a subsequent Planning Commission meeting for approval.

### **7. Resolution: Restorative Action**

If the Planning Commission is able to make the required findings and approves a View Restoration Permit, the resolution will include conditions of approval that specify the Restorative Actions that must be taken to restore the view. This includes specifying foliage, including trees, that need to be trimmed or removed. This may include a long-term foliage maintenance schedule to be incorporated into the conditions of approval. (See **Attachment 9** for Restorative Actions.)

Determination of restorative actions would usually be made based on the tree survey that was part of the application, the site visits and testimony at the hearing. All restorative action must be performed by a licensed and bonded tree or landscape service unless otherwise mutually agreed upon by the parties.

Restorative action may include trimming, culling, lacing, removal or removal and replacement of foliage including trees. The resolution will indicate the period of time within which the restorative actions must be completed taking into consideration the health of the foliage and common nesting seasons.

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### **8. Notice of Decision**

Once the Planning Commission makes a decision and adopts a resolution, staff shall mail a written notice of decision within five days of the decision to the applicant and each Foliage Owner named on the application. Copies of the final resolution will be attached to the notice of decision.

### **9. Completion of Restorative Action & Apportionment of Cost**

It will be the responsibility of the View Owner and Foliage Owner to ensure the Restorative Actions are performed pursuant to the resolution. The responsibility for the cost of the Restorative Action will be specified in the resolution, pursuant to the ordinance:

(1) Procedural Costs. View owner shall bear the cost of application fees and other application costs including the View Restoration Property Survey and Tree Survey and the cost of any other information requested by the reviewing authority.

(2) Restorative Action.

(a) The Foliage Owner shall pay one hundred percent (100%) of the cost of Restorative Action if the Foliage Owner did not participate in mediation and the reviewing authority finds Restorative Action is required.

(b) The View Owner and Foliage Owner shall each pay fifty percent (50%) of the cost of Restorative action if the foliage owner participated in mediation and the reviewing authority finds restorative action is required.

Once the restorative work is performed, staff will document compliance with the resolution with digital photographs. Staff will provide copies of these images to the View Owner and Foliage Owner(s) and will maintain copies with the final resolution in the City's files.

### **10. Maintenance After Initial Restorative Action**

The Foliage Owner shall ensure ongoing compliance with the Resolution and shall pay for subsequent maintenance of the foliage consistent with the View Restoration Permit.

### **11. Non-Compliance with View Restoration Permit/City Enforcement**

If, after a period of time specified in the resolution, the restorative work is not performed, the applicant may request, in writing, that the City proceed with enforcement of the resolution. (See **Attachment 11** for letter template to request City enforcement).

The first step in City enforcement, the Administrative Penalty process, would be conducted at no charge to the View Owner; however, if enforcement escalates to a City prosecution process, the City's prosecution costs would be paid by the View Owner. Once the City has confirmed that a view has been restored pursuant to a View Restoration Permit, any further dispute regarding a

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Foliage Owner's compliance with a View Restoration Permit may be resolved by a civil action initiated by the View Owner. (See Ordinance section 10-8-108.) In other words, after initial City enforcement, if foliage grows back and disrupts the view in violation of a View Restoration Permit, the View Owner may sue the Foliage Owner to gain compliance but the City will not be involved in enforcement of the View Restoration Permit at this point.

### **12. Limit on Number of Hearings Annually**

Pursuant to the adopted ordinance, the Planning Commission shall conduct no more than ten (10) View Restoration Permit hearings per calendar year. This does not include potential appeals to the City Council. The City will track this figure so applicants and potential applicants are aware of potential waiting periods for a hearing.

### **13. Appeal to City Council**

A decision of the Planning Commission on a view-related permit may be appealed to the City Council within 14 days of the Planning Commission's decision. Appeal forms are available in the City Clerk's office which may be contacted at 310.285.2400. The form must be submitted to the City Clerk within 14 days of the decision with the required fee (See **Attachment 10** for fees). The public hearing process before the City Council would be substantially the same as the public hearing process before the Planning Commission. After considering the written and oral testimony at the appeal hearing, the City Council may take one of the following actions:

1. Affirm the decision of the Planning Commission or make a different decision based on the findings that must be made;
2. Refer the matter back to the Planning Commission to conduct further proceedings.

### **14. Decisions Intended to Run With the Land (Section 10-8-107)**

Decisions regarding view restoration shall be binding on all current and future owners of view owner's property and foliage owner's property, and such decisions must be disclosed by each owner to subsequent owners of the property.



### 10. Landscape Standards for Trousdale

The following information regarding appropriate and inappropriate landscaping for Trousdale Estates is intended to assist property owners in planting trees and shrubs that will not result in current or future obstruction of neighbors' views. Nothing in this section should be construed to apply to City trees.

The City recommends that trees meeting the following criteria should not be newly planted in Trousdale:

- Grows rapidly and exceed a 14-15 foot height at maturity;
- Cannot be topped or easily and repeatedly pruned to maintain appropriate heights;
- A known fire hazard.

Following is a list of trees considered nuisance trees that meet the above criteria that should not be newly planted in Trousdale Estates. This list is not intended to capture all tree species that may not be appropriate for Trousdale Estates. Specific sites, conditions and irrigation needs may require site-specific landscaping solutions.

#### Nuisance Trees/Foliage:

- Eucalyptus
- Pine
- Italian Cypress
- Ficus
- Canary Island Date Palm
- King Palm
- Queen Palm

#### Recommended Trees

Recommended trees are those that meet the following criteria:

Grow to a maximum size that would not likely result in disruption of a view (maximum height of 14-15 feet);

Can be easily and repeatedly pruned to maintain appropriate heights;

Are appropriate to the climate and water conditions of Beverly Hills and would not negatively impact to slope stability.

Examples of appropriate trees include the following:

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- Western redbud
- Dwarf fruitless olive

### **Planting New Trees**

Property owners should consider the following when planting new trees or large shrubs:

### **Views**

**Location:** Will the planting location potentially be in a neighbor's line of sight to a view of the Los Angeles Area Basin?

**Landscape Type:** Would it be more appropriate to plant a shrub or a small tree so as not to block a neighbor's view now or in the future?

### **Fire Safety and Prevention**

**Location and Landscape Type:** Will the planting location be in close proximity to structures? Are the plants of a fire retardant type? (Please see the City's Fire Department web page regarding the City's Brush Clearance Program for additional direction).

### **Slope Stability/Erosion Control**

If located on a slope, are the plants appropriate for slope conditions in a naturally arid environment? If the plants on a slope require a great deal of water, could watering potentially destabilize the slope?

### **Landscape Maintenance**

It is a property owner's responsibility to maintain foliage located on his/her property. This includes regular pruning of plants if necessary to maintain appropriate size.

**NOTE:** If you are unfamiliar with landscaping, you may wish to contact a professional for assistance such as a landscape architect or designer or a nursery that offers plant selection assistance.

# **Attachment 3**





**City of Santa Barbara  
Fire Prevention Bureau  
High Fire Hazard Area Landscape Requirements  
*Ordinance #5779***

To incorporate fire resistant landscaping on all parcels within the high fire hazard area the following landscape requirements must be utilized. These requirements meet the Fire Department High Fire Hazard Area Defensible Space Requirements, per City Ordinance #5779, as outlined in Chapter 49 of the California Fire Code, 2016 Edition. These standards apply to all parcels within the high fire hazard area. Fire resistant landscaping with proper plant spacing and maintenance can impede the progress of a wildfire, reduce its intensity, and provide a safe buffer to protect a structure.

Incorporation of the High Fire Hazard Area Landscape Requirements into the review process will assist the City in complying with existing regulations for vegetation modification, balance the aesthetic beauty of our area, protect our resources, and reduce the risk associated with wildfire and habitat resources.

Vegetation installed within the high fire hazard area without an approved landscape plan shall be removed if in the opinion of the fire code official, it is capable of being ignited and endangering property.

**Requirements**

Landscape plans submitted for review shall include the following:

- A vegetation plan that details existing native vegetation with species name and locations.
- Vegetation shown on the plan that will be removed or retained.
- The method that will be used to remove vegetation (exp. mechanical or hand cutting).
- Must include new plantings with the species name and the specific location of the plantings to scale.
- Recommendations for plant placement must be followed as outlined in Table 1.
- The City of Santa Barbara, Fire Department uses a four zone fire landscape concept. Landscape plans must delineate landscape zones around all structures based on the required defensible space for your property. Landscape zones are as follows:
  - Zone 1 - (0-30 feet from structure)
  - Zone 2 - (30 to 50 feet from structure)
  - Zone 3 - (50 to 70 feet from the structure)
  - Zone 4 - (70 to 100 feet from the structure in the Foothill Zone or 70 to 150 feet in the Extreme Foothill Zone)

Landscape plans are reviewed based on High Fire Hazard Area Defensible Space Requirements as follows;

Coastal Interior Zone	30 to 50 feet defensible space required from structure
Coastal Zone	50 to 70 feet defensible space required from structure
Foothill Zone	100 feet defensible space required from structure
Extreme Foothill Zone	150 feet defensible space required from structure

Slopes over 30% are at increased risk from wildfire, therefore the Fire Department may require additional vegetation modification for a total distance of 150-300 feet from any structure. If required vegetation modification methods must be addressed on the plan.

All plantings along driveways and street access areas (on or adjacent to the property) must be shown on landscape plans and are required to have vegetation planted or trimmed to provide a vertical clearance of 13 feet 6 inches and a 10 foot horizontal clearance.

Vines and climbing ornamental plants on structures are prohibited within the high fire hazard area.

Rooftop gardens and landscaped roofs, also known as vegetated roofs, are prohibited in high fire hazard areas.

All landscape plant species must be fire resistant (See enclosed Desirable Qualities for Fire Resistant Landscape Plants, Table 2). Certain plant species shall not be planted in the high fire hazard area landscape. The enclosed list of Unacceptable Plant Species (Table 3) should not be planted within 150 feet of any structure, unless listed otherwise.

Many homes in the high fire hazard area do not have the space surrounding their property to obtain Defensible Space Requirements. Using the above zone concept becomes critical on these properties.

**Table 1: Recommendations for Plant Placement**

<p><b>ZONE 1</b> 0 – 30 feet</p>	<p>This area is closest to a structure. It provides the best protection against the high radiant heat that result during a wildfire. Plants should be low growing, irrigated plants. Focus should be on ground covers not more than 12 inches in height or succulents. Use non-flammable materials for paths, patios, and mulch. Trees (when the canopy is fully grown) shall not be planted closer than 15 feet from a structure. No plantings shall be connected or trellised to the structure.</p>
<p><b>ZONE 2</b> 30 – 50 feet</p>	<p>Maintain a reasonably open character in this area. Plant low growing ground covers and succulents resistant to fire. Shrubs up to 3 feet can be planted but should have at least 18 feet spacing between other shrubs or other trees. Shrubs can be planted in clusters not more than 10 feet in diameter, but should have at least 18 feet between clusters. Do not plant shrubs underneath canopy of trees. Trees should be spaced at least 30 feet apart to prevent crowns from touching once fully grown.</p>

ZONE 3 50 – 70 feet	This area should have native and Mediterranean plantings that require irrigation and should not be higher than 4 to 6 feet. Shrubs should be spaced at least 18 feet away from each other. Shrubs can be planted in clusters not more than 10 feet in diameter, but should have at least 18 feet between clusters. Trees should be spaced at least 30 feet apart to prevent crowns from touching once fully grown.
ZONE4 70 – 150 feet	This zone is furthest from the structure. Plantings once established need no irrigation. There is no limit to height. Shrubs planted in this area should have 18 feet spacing or be planted in clusters with at least 18 feet spacing. Trees can be planted in groups or with individual spacing at least 30 feet from other trees.
SLOPES>30%	If additional vegetation modification is required on slopes over 30% vegetation should be reduced through thinning of existing plants, pruning, removal of dead material, and removal of fire ladders (Fire ladders exist if a fire's flames can spread from the ground into shrubs and trees up to a house).

**TABLE 2 - Desirable Qualities for Fire Resistant Landscape Plants**

Plant qualities that are desirable for fire resistant plants are:

- Ability to store water in leaves or stems.
- Produces limited dead and fine material.
- Extensive root systems for controlling erosion.
- Plant has high levels of salt or other non-resinous compounds within its tissues that can contribute to fire resistance.
- Ability to withstand drought.
- Plants that are low growing in form.
- Ability to withstand severe pruning.
- Low levels of volatile oils or resins.
- Ability of plant to sprout after a fire.

**Table 3: Unacceptable Plant List**

Specific plants are considered to be unacceptable in the landscape due to their flammable characteristics. These characteristics include; large amounts of dead material retained within the plant, rough or peeling bark, production of profuse amounts of litter and the presence of volatile substances such as oils, resins, wax, and pitch. Certain native plants species contain these characteristics.

Plants with these characteristics shall not be planted in high fire hazard areas. They are referred to as target species since their partial or complete removal is a critical part of hazard reduction. The following is a list of plants that are not allowed to be planted within the high fire hazard area as defined in Table 1.



### Unacceptable Plant Species

Natives	Domestics
<i>Adenostoma fasciculatum</i> – Chamise	<i>Acacia</i> species
<i>Adenostoma sparsifolium</i> – Red Shank	<i>Casuarina</i> species – Beefwood
<i>Artemesia californica</i> – California Sagebrush	<i>Cortadera</i> species – Pampas Grass
<i>Baccharis</i> species (low growing form OK)	<i>Cupressus</i> species – Cypress
<i>Eriogonum fasciculatum</i> – Common Buckwheat	<i>Eucalyptus</i> species – Eucalyptus
<i>Olneya tesota</i> - Iron wood	<i>Juniperous</i> species – Juniper (except species which grow less than 1 foot)
	<i>Pennisetum</i> - Fountain Grass
	<i>Pinus</i> species – Pine

Other plants may be considered undesirable because of their ability to naturalize and become a pest. These types of plants should be avoided, especially in sensitive riparian or coastal areas where they could become established and compete with native vegetation.

On steep slopes care should be taken to avoid erosion problems created or enhanced by vegetation removal. Deep rooted ground covers and landscape plants should be utilized to hold soil in place. Avoid shallow rooted ground covers. For example, ice plant while an effective ground cover on flat surfaces would be undesirable on a steep slope because its shallow rooted nature may increase erosion when the root zone becomes saturated during heavy rains, exposing bare soil. In areas where target species make up the total area of vegetation, partial removal is recommended to obtain Fire Department “Defensible Space Requirements”.

