



# City of Palo Alto

## City Council Staff Report

(ID # 9442)

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**Report Type: Consent Calendar**

**Meeting Date: 8/20/2018**

**Summary Title: Determination of potential risk of wildfires cause by electric lines**

**Title: Approval of Mitigation Measures Minimizing Risk of Wildfires From Overhead Electrical Lines Within the Foothills Area West of Highway 280**

**From: City Manager**

**Lead Department: Utilities**

### **Recommendation**

Staff recommends, pursuant to a 2017 state law related to electric utilities and wildfires, that Council take the following actions:

1. Determine that the area within City limits west of Highway 280 is at significant risk of catastrophic wildfire resulting from electric lines, and
2. Approve mitigation measures presented in this report which the City's Public Works and Utilities Departments will undertake to minimize the risk of overhead electric lines causing wildfires.

### **Discussion**

In 2017, a new law<sup>1</sup> mandated that the governing boards of local publicly owned electric utilities make a determination regarding wildfires risk in certain geographic areas. Specifically, governing bodies are to determine whether any portion of an area within its jurisdiction has a "significant risk of catastrophic wildfire" resulting from the utility's electrical lines and equipment. This determination is to be made based on historical fire data and local conditions and in consultation with entities responsible for controlling wildfires, such as fire departments.

The timing of the new law works well with current staff efforts. For many months, Utilities staff has worked with stakeholders, including various City Departments such as Fire and Public Works as well as state agencies, on a statewide effort to map all areas in California considered an elevated fire risk. This effort first began years ago by the State's firefighting agency, and initially identified areas with an elevated hazard for fast spreading fire due to strong winds, abundant dry vegetation, and other environmental conditions. As part of the State's mandated project to update the California fire map,

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<sup>1</sup> [Public Utilities Code 8387](#), created from SB 1028 (Hill). The law also requires investor-owned electric utilities to make the same determination and approve mitigation plans for affected areas.

local utilities assisted in developing territory-specific maps for incorporation into the larger statewide map.

While the State’s goal for this project was to produce an updated fire map of California, City staff also used the data to produce our own local assessment. Through analysis developed for the State project as well as Palo Alto-specific historical data, fire and fuel models, vegetation management practices, and with assistance from a company experienced in fire science, Utilities staff determined that the area west of Highway 280 meets the definition of an area at significant risk of catastrophic wildfire resulting from contact with overhead electrical lines and equipment.<sup>2</sup> This area is generally known as the Foothills and is shown in the visual here as the area to the left of the orange line (Highway 280), outlined in black.

Therefore, to meet the new legal requirement of a formal Council determination and as a result of months of collaborative work assessing wildfire risks, staff recommends that Council determine the following: The area of Palo Alto west of Highway 280 is at significant risk of catastrophic wildfire resulting from our electric utility’s electrical lines and equipment.



Once a determination is made, the law mandates a second step: Council approval of mitigation efforts

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<sup>2</sup> This area is also the only area within Palo Alto that met the State’s threshold of a “high fire threat area” for map inclusion.

that the electric Utility “intends to undertake to minimize the risk of its overhead electrical lines and equipment causing a catastrophic wildfire.” Council may determine how often it receives a report of such measures. City staff began preparing general Foothill wildfire mitigation efforts years ago. For example, the City prepares a Foothills Fire Mitigation Plan<sup>3</sup> and Fire Department staff held a Wildland Training Drill in Foothill Park in June 2017. Indeed, the City has known for years that the area west of Highway 280 is a particularly fire-prone area, and has prepared for such events. The following is a list of the mitigation measures in effect now, as well as two measures under investigation for implementation if needed:

1. Public Works Urban Forestry staff will trim trees to increase the minimum clearance areas between vegetation and power lines from 18 inches to 48 inches. The minimum trimming requirement will also increase from 4 feet to 12 feet.
2. Utilities staff will increase the frequency of inspection of overhead electric facilities from once every two years to once per year.
3. Utilities staff will ensure the protection equipment on the distribution system is sufficient.
4. Utilities staff will investigate additional measures such as adding extra insulation on wires where trees might touch and changing the configuration of how electric wires attach to poles.
5. And in the near future, Utilities staff will examine criteria for shut-off of power under specific criteria, such as high wind and fire warnings.

Full implementation of all of the above efforts is expected by June 2019, with the exception of one measure already taken: elimination of the automatic reclosing operation in the Foothills. A recloser is a switch that shuts power off when it detects a problem on electric lines. It then automatically tests the line to determine if the trouble is resolved, and if so, restores power. By eliminating the automatic restoration function to the most fire-prone area of the City, staff is able to first inspect and ensure the risk of fire is fully reduced before manually restoring power to the lines.

It should be noted that the increased vegetation clearances are an extremely important aspect of the mitigation efforts. Trees touching electric lines are the determined cause of four of last year’s California fires, underscoring the importance of proper vegetation management.<sup>4</sup> The City understands this specific risk, and is taking ameliorative steps now.

To fulfill the second portion of the new law, staff recommends Council approve the above mitigation measures, and direct staff to again seek Council acceptance whenever such efforts are significantly modified.

## **Resource Impact**

There is no resource impact associated with this legally required action, in that no specific activities will begin as a result of Council’s determination. Any needed action has already begun.

## **Environmental Review**

The Council’s adoption of this item is not a project requiring California Environmental Quality Act review, because it is an administrative governmental activity which will not cause a direct or indirect physical change in the environment.

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<sup>3</sup> Council adopted this Plan on October 26, 2009 (CMR 326:09). The Plan was last [updated in 2016](#).

<sup>4</sup> See the CAL FIRE [press release](#) of May 25, 2018