

Southern California Edison
**WSD-001 – Resolution WSD-001 to Establish Procedures for the Wildfire Safety Division's
Review of 2020 Wildfire Mitigation Plans Pursuant to PUC Sections 8386 and 8386.3**

DATA REQUEST SET Cal Advocates - SCE - 2020 WMP - 04

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Response Date: 9/23/2020

Question 004:

In response to SCE-14, SCE provided Table 26 “Known Risk Attributes.” These attributes are used in the HTMP Tree Risk Calculator, and hazard tree mitigation is based on the risk score produced by the calculator.

- a) Please provide more detail on the Tree Risk Calculator. Does the calculator weigh each of the 12 attributes in Table 26 evenly when producing a risk score? Please include a table of weights for each attribute, or a justification for even weighting.
- b) What is the scale for each attribute? For example, are trees ranked on a binary basis (low risk/high risk) or on a 1-10 scale? Are the scales consistent for all 12 attributes?

Response to Question 004:

SCE would like to clarify that Table 26 “Known Risk Attributes” are not the same list of risk attributes used in the HTMP Tree Risk Calculator. The attributes contained in Table 26 are a list of conditions that are used to categorize “at-risk” tree species. Hazard tree mitigation is guided by the risk score produced by the calculator, which takes into consideration the risks posed by at-risk tree species, when applicable. Although Table 26 and HTMP Tree Risk Calculator defect lists are not the same, both account for tree risk factors.

a. As clarified above, the HTMP Tree Risk Calculator does not use the exact list of species risk attributes identified in Table 26; however, it uses a more comprehensive list which includes derivatives of risk attributes listed in Table 26. The risk score is derived from Tree Defects (reference list below) and also includes consideration of Site Conditions. The target (SCE utility lines) may add a slight scoring adjustment based on the voltage and construction type. Mitigation measures then take into consideration, where applicable, the inherent tree risks posed by any particular species.

The Tree Risk Assessor (ISA Certified Arborist) evaluates these tree defects and site conditions and enters the conditions into the “risk calculator.” Common arboriculture conditions were populated in drop down categories for the tree assessors to select the most appropriate condition(s), as applicable. Applying a score to each selection (and setting a ceiling for each category) allows a standardized process for subject tree evaluation. Each of the standardized drop-down selections are weighted with scores as agreed upon by SCE’s Utility Arborists. The final scoring results can range from 1-100 (100 being the highest risk score) which determines whether mitigation is required. The Certified Arborist then provides the mitigation recommendation based on professional experience and judgement of the observed overall conditions.

Categories that are factored into the risk calculator include: HFRA, Voltage/Line Type, Overall

Tree Condition, Tree Defects, Site Conditions, Tree Lean, Tree Height, Likelihood of Impact. HTMP “Tree Defect” Risk attributes are not evenly weighted, and a list of tree defects contained in the calculator are provided in the table below.

<u>Tree Defects</u>	<u>Score</u>
Small codom top (top 1/4 of tree height)	1
Moderate codom top (1/2-3/4 of tree height)	3
Large codom top (1/4 to 1/2 tree height)	7
Multiple trunks, very low codom (bottom 1/4 of tree height)	10
Nuisance insect or mistletoe	1
Moderate insect or mistletoe	10
Severe insect or mistletoe infestation	20
Dead branches/dead top	5
Dieback of twigs or branches	10
Fungal fruiting bodies	15
Minor rot	5
Moderate rot	20
Prevelant rot	35
Major rot	50
Minor included Bark	10
Major included Bark	25
Poor Pruning Practices	1
Weak, unsound branch attachments	10
Species prone to failure	10
Early stages of serious disease	10
Prevelant signs of serious disease	30
Epicormic sprouts	1
Minor exposed or girdling roots (<25%)	5
Moderate exposed or girdling roots (25-50%)	20
Serious exposed or girdling roots (>50%)	40
Crack in trunk	20
Major cracks	50
Seams/ribs	5
History of branch failure	10
History of trunk failure	20
Tree dead	50
Basal wound	5
Bleeding/resinous	1
Live crown ratio <50%	20
Structurally unsound trunk/poor taper	5

b. There is no scale applied to 12 attributes in Table 26. Specific mitigations or prescriptions are not associated with these attributes. They are used as guidance for SCE’s employees and contractors to make appropriate inspection and prescription judgments. The total count of each attribute by species would indicate the riskiest species within proximity to SCE’s facilities. For example, Eucalyptus has 8 of the 12 attributes, and Palm has 7 of the 12, identifying these as two of the riskiest species.