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Raphael Breines, Senior Planner  
Physical & Environmental Planning  
University of California, Berkeley  
300 A&E Building, Berkeley, CA 94720-1382

Re: Scoping Comments: UC Berkeley Hill Campus Wildland Vegetative Fuel Management Plan

Dear Mr. Breines:

These comment are submitted by myself and Mr. Michael Graf, Esq. on behalf of the Claremont Canyon Conservancy (“Conservancy”), a 501(c)(3) nonprofit membership organization, in response to the University of California Regents’ Notice of Preparation (“NOP”) and Initial Study (“IS”) for the above-referenced plan. We appreciate the opportunity to submit these comments, which enlarge upon comments made by the two of us at the public scoping meeting held on December 2, 2019.

### **Background**

The Project at issue in the NOP/IS is the Wildland Vegetative Fuel Management Plan (WVFMP or Plan) for the UC Berkeley Hill Campus (Plan Area or Hill Campus). The purpose of the Plan is to reduce wildfire risk and diminish or avoid the harmful effects of wildfire on people, property, and natural resources within the Hill Campus, as well as in neighboring areas.

Under the Plan, UC Berkeley proposes to implement three vegetation treatment types within the Hill Campus: 1) evacuation support treatments, 2) fire hazard reduction treatments, and 3) fuel break treatments.

As part of the scoping process, UC has prepared an initial study, which identifies a number of potentially significant impacts from the Project, necessitating an EIR.

The fire hazard reduction (FHR) projects include three specific vegetation treatment projects - in Strawberry Canyon (Strawberry FHR Project), Claremont Canyon (Claremont FHR Project), and on areas along Frowning Ridge (Frowning FHR Project). These specific projects are collectively referred to as the “Identified Treatment Projects.” The NOP/IS also indicates that additional projects will be initiated later, but that discussion of such projects in the EIR will be at a programmatic level, with further project-level environmental review when those projects are considered for approval.

Section 2.4.1 of the Initial study describes the three vegetation treatment types proposed to be implemented within the 800-acre Plan Area to reduce wildfire risk and increase wildfire resiliency. These include evacuation support treatments, fuel breaks, and fire hazard reduction treatments. These treatment types would be implemented at various locations in the Plan Area based on the conditions and objectives of treatment at a given site, local assets at risk, ecological conditions, and other factors.

Evacuation support treatments are described as roadside treatments that are proposed along emergency evacuation routes throughout the Hill Campus including these major emergency access routes within and bounding the Plan Area. Roadside treatments involve vegetation removal, focusing on trees regardless of species, and are conducted along the strip of land up to 100 feet from the edge of pavement on both sides of designated roadways and trails. The purpose of these treatments is to protect evacuation routes from the Plan Area that would be utilized in the event of a wildfire so that they may be safely used and evacuation routes will not be made inaccessible due to fire or related events (e.g. falling trees or burning material blocking a roadway).

Fuel break treatments are described as strategically-located linear strips where vegetation has been treated or removed to aid in the containment of a fire and reduce the likelihood of crown fire transition. To implement fuel break treatments under the Plan, UC Berkeley would either remove understory vegetation and select trees (i.e., shaded fuel breaks) or remove all tree and shrub vegetation in the fuel break area, leaving only some herbaceous vegetation (i.e., non-shaded fuel break) to minimize fire intensity if ignited by a wildland fire. This treatment would also alter the structure of the forest to inhibit torching and ember distribution.

Fuel breaks would serve the dual purpose of 1) creating a non-burnable area that would stop the spread of fire and 2) creating defensive positions that would enable effective firefighting and fire-retardant application. Fuel break treatments in the Plan Area could be up to 200 feet wide and installed on ridgelines or other areas naturally low in vegetation to limit the spread of fire from trees between canyons.

Fire hazard reduction treatments would focus on reducing hazardous fire conditions in the Plan Area to help promote landscape resiliency and fire-resistance as well as restoring and/or improving native species plant habitats. Fire hazard reduction treatments are less refined than the ongoing defensible space treatments used around structures in that grasses are not mowed and there is no requirement to prune trees. Additionally, shrubs are retained in clumps. Fire hazard reduction treatment would therefore have greater habitat value than would defensible space treatments, as well as requiring less intensive maintenance. Treatments could involve a variety of activities, including manually and mechanically removing high fire hazard vegetation and trees, applying herbicides, and replacing fire-prone vegetation with more fire-resistant trees and shrubs. In some limited cases, irrigation could be installed to support the new fire-resistant vegetation, at least initially. UC Berkeley would evaluate trees and shrubs for vertical and horizontal spacing; remove tall, unhealthy, structurally unsound or highly flammable trees that are likely to torch and distribute embers; and remove short understory trees that could serve as fuel ladders. Criteria for tree removal would include consideration of tree health, structure, height, potential for failure, flammability/fire hazard, high fuel volume production of small diameter fuels, and competition with other trees (including for water, space, and light). Criteria for retention of trees includes

consideration of whether its removal would facilitate the spreading of invasive plant species and inhibit growth of surface fuels, improve habitat within the understory, encourage nesting and improve flight patterns of raptors, and prevent erosion.

Trees that are cut would be chipped and distributed throughout the treatment area, or kept as logs. In unusual circumstances where the added volume of the tree is insignificant (i.e. where trees are sparse and shrub cover is thick), trees would be bucked, (i.e., cutting a felled and de-limbed tree into logs) and the tops cut into lengths no longer than 24 inches and placed beneath the shrub canopy to accelerate decomposition. Trees would be typically cut using a mechanized fellerbuncher and hand tools.

To prevent resprouting, an herbicide would be applied to eucalyptus and acacia stumps (which are most prone to resprouting) within 3 minutes of cutting by a licensed California Qualified Applicator. Felled trees would be skidded by rubber-tired or tracked vehicles along skid trails to landings. At landings, trees would be stored or chipped using a grapple-fed chipper or a tracked chipper. Chips would be both spread onsite and transported to a gasifier to supply electricity directly to the campus. Near roads, trails and buildings, lower limbs of trees would be pruned, understory vegetation shortened, and grass mowed. Completion of fire hazard reduction treatments would typically take up to 10 weeks at a time but could take longer depending on the size of a planned fire hazard reduction project.

The Initial Study describes three specific proposed fire hazard reduction projects: the Strawberry FHR Project, the Claremont FHR Project, and the Frowning FHR Project. Together, they would be implemented on approximately 124 acres within the Plan Area. Treatment activities used to implement these projects would include a combination of manual and mechanical treatments to remove vegetation, followed by the use of herbicides to prevent resprouting.

The Claremont FHR Project would be implemented on approximately 30 acres in the southeastern portion of the Plan Area. Four existing landings that are adjacent to existing fire trails or paved roads in the Claremont Canyon FHR Project would be used for equipment staging, fueling, and maintenance during project implementation. Some minor grading may be required to reestablish existing landings for use; however, no import or export of soil would occur.

Temporary closure of Claremont Avenue may be required for a few hours to allow equipment to move and move off the site. UC Berkeley would coordinate with adjacent facilities and local fire departments to plan emergency access or alternative access to the areas served by the road.

### **IS Presentation of Wildfire Risk**

The initial study identifies Wildfire Risk as a potentially significant impact due to slope, prevailing winds, and other factors that exacerbate wildfire risk and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The initial study states:

The Plan Area is located within a Very High FHSZ. Plan implementation would require the temporary and periodic use of offroad vehicles and mechanical equipment within vegetated areas. Heat or sparks from vehicles or equipment activity (e.g., chainsaws and chippers) could ignite dry vegetation and cause a fire, exposing people or structures in the vicinity to risk of wildland fires. However, UC Berkeley would integrate measures into treatment design to reduce the risk of uncontrolled spread of wildfire from treatment activities and comply with applicable regulations. The Conservancy would note that such mitigation measures should include use of weather forecasts to avoid scheduling vegetation control activities that involve a risk of causing ignitions at times when the fire risk is high, especially times when Diablo wind conditions are forecast (e.g., “red-flag alerts”).

### **IS Presentation of Impacts to Biological Resources.**

With respect to impacts to Biological Resources, the initial study asks whether the project will have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or specialstatus species, or have a substantial adverse effect on any riparian habitat or other sensitive natural community.

The initial study finds that both of these impacts are potentially significant as treatment activities implemented under the Plan could result in a substantial adverse direct and indirect effects to specialstatus species, such as the Alameda whipsnake, including injury, mortality, habitat modification, and disturbance. The initial study also finds that the plan area includes riparian habitat and other sensitive natural communities, and that [t]reatment activities that require vegetation removal could degrade or remove these habitats.

The Conservancy concurs that fire hazard reduction measures could result in impacts to biological resources, and believes that the EIR should, where feasible, identify designs for Plan activities to avoid or minimize such impacts. However, the Plan must be designed with protection of human health and safety as its top priority, and some impacts to biological resources may be found significant and unavoidable, in which case those impacts will need to be justified by a statement of overriding considerations.

The Conservancy would note that the removal of vegetation should not, in itself, be considered a significant impact. The EIR needs to consider both short-term and long-term impacts, and a temporary, short-term impact from removal of vegetation may not necessarily be significant, especially if the Plan calls for prompt replacement of the removed vegetation or phased removal and replacement over time, and the substitute vegetation will have significantly lower fire risk while having at least comparable value as wildlife habitat.

### **The EIR Must Adequately and Stably Describe the Project.**

One of the main purposes of an EIR is to identify the significant impacts of a project and then determine whether there are feasible alternatives or mitigation that will avoid or substantially lessen those impacts. Pub. Res. Code § 21002

The NOP and IS do not distinguish between two fundamentally different

treatment types, one focusing on the removal of non-native eucalyptus and Monterey pine and other highly-flammable plant species and the other focusing on thinning projects intended to reduce the overall available fuel but that do not preferentially remove eucalyptus and pine or other highly flammable species.

The EIR must evaluate the effects of these two very different treatment types, both under “normal” conditions – i.e., when temperatures are near seasonal averages humidity levels are moderate, and winds are from the west at low to moderate speeds – and under Diablo wind conditions – i.e., when temperatures are higher than normal, humidity is low to very low, and winds are from the northeast and range from high to very high speeds. These latter conditions, while they have been relatively infrequent, have tended to occur in the early autumn, when fire risk is at its highest – i.e., no rain for several months and vegetation dry with maximum flammability – and have resulted in the largest and most severe wildfires that have happened in recent years.

In particular, the EIR must consider, for both weather conditions and both treatment types: 1) the speed of fire spread and the consequent ability of fire fighters to be able to establish effective fire lines and create a defensive perimeter to the fire; 2) the ability of firebreaks to slow or stop an advancing fire; 3) the likelihood a fire spreading and becoming a “crown” fire by climbing fire ladders of vegetation and debris from shrubs close to the ground up to the tree crowns; and 4) the likelihood of the fire spreading through firebrands released from a crown fire, including the distance such firebrands might travel and the likelihood of crown-to-crown fire transmission.

The EIR, as an analysis of a long-term plan, must evaluate both short-term and long-term effects and impacts of the Plan and its implementation. Both the Plan’s short-term and long-term goals should be identified and discussed, including associated benefits, impacts, and a reasonable range of alternatives.

### **The Project**

The EIR must include as part of its project description a clear explanation of the treatments that would be utilized for different project alternatives, particularly with respect to fire risk and impacts to biological resources.

Under CEQA, the EIR must include a detailed project description that provides adequate information to the public and decision makers on critical differences in treatment approaches with respect to environmental impacts. Recent case decisions hold that an EIR’s project description must adequately inform the public as to specifics of the project as well as the alternatives that may be considered. See *Stopthemillenniumhollywood.com v. City of Los Angeles (“Millennium”)* (2019) 39 Cal. App. 5th 1 17, (“failure to identify or select a project at all impairs the public’s right and ability to participate in the environmental review process.”)

In *Millennium*, the project description had failed to describe the siting, size, mass, or appearance of any building proposed to be built at the project site. *Id.* at 18. The draft EIR did not describe a building development project but instead presented different conceptual scenarios that Millennium or future developers might follow for the development of this site. *Id.* The court found that the open-ended description did not meet the requirement of a stable or finite proposed project, as it provided the public and decision makers little by way of actual information regarding the ‘design features’ or the

'final development scenario.' *Id.* See also *id.* at 30 ("The technical characteristics of the construction projects such as was provided in South of Market were not provided here. The draft EIR did not contain site plans, crosssections, building elevations, or illustrative massing to show what buildings would be built, where they would be sited, what they would look like, and how many there would be.")

*Millennium* concludes by rejecting the argument that a specific project description is not necessary if the EIR analyzes the worst case impact scenario:

"[A]ppellants erroneously assert that so long as the worst case scenario environmental effects have been assumed, analyzed, and mitigated, and so long as no development takes place that exceeds those mitigation measures, CEQA's purpose has been fully satisfied. That argument was made and roundly rejected in *County of Inyo and Washoe Meadows*. CEQA's purposes go beyond an evaluation of theoretical environmental impacts. >If an EIR fails to include relevant information and precludes informed decisionmaking and public participation, the goals of CEQA are thwarted and a prejudicial abuse of discretion has occurred."

*Id.* at 28. See also *Washoe Meadows Community v. Department of Parks & Recreation* (2017) 17 Cal. App. 5th 277, 287-288 (draft EIR which presented five different alternatives for addressing the Upper Truckee River's contribution to the discharge of sediment into Lake Tahoe, and indicated that following a period for public comment, one of the alternatives, or a variation thereof, would be selected as the project, found to be inadequate under CEQA.) *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 198 ("[C]urtailed, enigmatic or unstable project description draws a red herring across the path of public input.")

The Conservancy has concerns about the IS's presentation of this issue for purpose of informing the preparation of an EIR for the project. The EIR must go beyond the IS to consider the extent to which different treatment options may actually exacerbate the wildfire risk, particularly between treatment options that remove highly flammable non-native tree species, particularly eucalyptus and Monterey pine, versus treatments that rely instead on thinning these non-native species. In addition, the EIR must consider the benefits, both in terms of affected biological resources and wildfire risk to the treated landscape as part of preferred treatment alternative, of replacing high fire risk non-native and invasive tree species by native vegetation.

Consistent with the recent *Millennium* decision discussed above, the EIR must choose a project in this case that is adequately described in its treatment approach, in particular with respect to the removal of non-native eucalyptus and pine, in order to provide a clear discussion of the hazards posed by the project as well as the biological benefits and reduction in fire risk gained by restoring the native vegetated landscape that existed before that landscape was removed and eucalyptus and pine were planted there.

The EIR should also distinguish to what extent the Project is actually a long-range program, and to what extent it is an actual project. E.g., the EIR should discuss the specific FHR Projects identified in the NOP and IS in sufficient detail that the public can intelligently comment on the Projects' potential impacts, mitigation measures to reduce the level of such impacts, and alternatives that might avoid significant impacts.

On the other hand, for parts of the Plan Area where specific projects are not being proposed at this time, the EIR should discuss treatments and potential impacts at a more general program level, with the understanding that more detailed and specific analysis may be needed when specific projects are proposed. In any such discussion, the Plan and the EIR should explain how the Plan will prioritize creating and implementing additional projects within the Plan Area so as to maximize the benefits from reducing fire risk while minimizing impacts on biological resource value.

The EIR needs to state clearly which parts of its analysis are project-level and programmatic, and where each level of analysis would apply. Ideally, the Plan should include identification of both treatments and treatment priorities for the entire Plan Area, and the EIR should evaluate, at a programmatic level, the impacts that would result, as well as alternatives that might identify different priorities for treatment implementation.

## **UC Must Choose a Preferred Alternative.**

As part of the EIR process, UC must choose a preferred Project alternative, including associated treatments, which should then be compared to other alternatives. In doing so, the Conservancy believes that UC should choose a eucalyptus-pine removal approach as the preferred treatment alternative in the preferred Plan alternative presented and analyzed in the EIR.

As described in the August 27, 2019 report of Professor Joe McBride:

“All areas of eucalyptus plantations in the study area should be converted to naturally occurring vegetation types to reduce the fire hazard and the potential for firebrand production (Map 4). This recommendation is based on studies of fire management in eucalyptus by Hodgson (1967), Cheney (2012) and the experience of the author. Thinning of eucalyptus plantations may eliminate fuel ladders but it does not stop the accumulation of eucalyptus litter (leaves, bark and small branches) both on the ground and hanging from tree branches. The University of California has not been able to properly manage the maintenance of eucalyptus litter in their eucalyptus plantations in the past. Funding for such maintenance operations will be costly and will continue as long as the thinned eucalyptus stands occur in Strawberry and Claremont canyons. Furthermore, eucalyptus canopies in thinned stands are still functionally continuous in Diablo winds and hanging leaves and bark can produce fire brands that can carry for 3 to 1 mile.”

Professor McBride also found that conifer plantations present serious fire hazards because of fuel loading, stand structure, and the potential for firebrand production. During period of high-velocity Diablo winds from the northeast, Firebrands produced by conifer trees along ridges will be propelled by high wind velocities to rain down into the canyons. Many spot fires both in the interface vegetation and on structure are likely to be ignited. Because of this potential, Professor McBride’s recommendation is that all portions of conifer plantation occurring within 200 feet of ridges tops should be converted to either oak woodland or grassland.

In considering this preferred alternative, the EIR must provide detail on the impacts of the alternative, including a comparison between a treatment approach that preserves and enhances native grassland, shrub and oak woodland/bay habitat versus one that perpetuates non-native tree species in perpetuity, potentially requiring regular elimination of understory vegetation and new tree seedlings, saplings, and suckers as well as leaf and bark debris (including hanging bark) such that basically all usable understory wildlife habitat is eliminated.

Such comparison should consider the feasibility of each approach as different alternatives, as well as which alternative best avoids or substantially lessens the potentially significant impacts of the Project. This is required under CEQA. See *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 516-519; *Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 514, 515 (EIR must include sufficient detail to enable those who did not participate in its preparation to understand and to consider meaningfully the issues the proposed project raises.)



## **Interaction between Climate Change and the Plan**

The EIR needs to consider how the effects of future climate change will interact with the Plan and its implementation, including consideration of whether that interaction would result in new or different impacts from the Plan and its implementation. Under a “business as usual” scenario, average temperatures are now projected to rise 3.5 degrees Celsius (approx. 6.3 degrees Fahrenheit) by 2100. Such a temperature shift will significantly alter the area’s ecology, especially if it is accompanied, as is now predicted, by wetter winters and dryer summers. The result is likely to be more growth of annual grasses and shrubbery, but drier conditions in late summer and early fall. How will this affect the plant and animal species living in the Plan Area? How will the Project, in turn interact with the altered landscape and species habitat? How will the Project need to change in response to the changed climate, and how will the impacts change from these alterations?

For example, if climate change means hotter, drier summers and early falls in the East Bay Hills, how will the current tree species fare. Will they be able to adapt, or will they become more disease-prone and subject to drought symptoms and early death? If so, when should they be removed and what should be planted in their stead? Should some species be removed and replaced in anticipation of these changes to reduce occurrence of fire-prone conditions? These questions need to be addressed in relation to a plan expected to extend over 30 years.

### **Cumulative Impacts**

The EIR must consider the cumulative impact of the Project, in conjunction with other past, present, and reasonably foreseeable future projects, including projects on adjoining and nearby vegetated or developed areas of the East Bay Hills. In particular, the EIR needs to consider the cumulative impact of the Plan in conjunction with current or planned managements plans for areas in the East Bay Hills owned or managed by the Cities of Oakland and Berkeley, the East Bay Regional Park District, and the East Bay Municipal Utilities District.

To the extent plans for management of any of these areas would result in a foreseeable risk of wildfire ignition or spread, UCB should be working with those agencies to jointly mitigate that risk. The Plan should call for such coordination, and the EIR should evaluate the resulting risk depending on whether such coordination is effective or not.

If the coordination is not effective, the Plan should take into account the additional risk created by how neighboring lands are managed, and should be modified accordingly (e.g., by enlarging proposed fire break areas, creating additional fire break areas, modifying fire hazard reduction projects in terms of the nature and priority of treatments, etc.) to reduce the cumulative fire risk and impacts.

Thank you for the opportunity to present these comments. Please keep me, the Conservancy, and Mr. Graf informed of the progress of the Plan’s environmental review.

Most sincerely,

Stuart M. Flashman