



Barg Coffin Lewis & Trapp, LLP
600 Montgomery Street, Suite 525
San Francisco, CA 94111
www.bargcoffin.com

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Jodie Gerhardt
Palo Alto Planning and Development
Services Department
285 Hamilton Avenue, Suite 100
Palo Alto, California 94301

Emily Foley
Palo Alto Planning and Development
Services Department
285 Hamilton Avenue, Suite 100
Palo Alto, California 94301

Re: Environmental Review of 575 Los Trancos Road Residential Project

Dear Ms. Gerhardt and Ms. Foley:

The Sierra Club Loma Prieta Chapter (“Sierra Club”) submits this letter to the City of Palo Alto Planning and Development Services Department requesting that the Mitigated Negative Declaration (“MND”) for the Los Trancos Residential Project (“Project”) be revised and recirculated for public comment consistent with the California Environmental Quality Act (“CEQA”), Pub. Res. Code, §§ 21000 et seq., and its implementing regulations, the “CEQA Guidelines,” Cal. Code Regs., tit. 14, §§ 15000–15387.

I. The Project

The Project is the development of a 7,245-square-foot single-family residence, a 734-square-foot attached garage, an 895-square-foot accessory dwelling unit, a swimming pool, access roads, and other amenities in the flat, western portion of a 5.38-acre parcel of undeveloped open space (the “Site”) in the City of Palo Alto (“Palo Alto”).

The Site is dominated by oak woodland, riparian woodland, and a meadow of non-native grasses. Los Trancos Creek runs through the site. (MND, p. 4.) The Creek is designated critical habitat for steelhead trout under the Endangered Species Act. (16 U.S.C. § 1531 et seq.) The Project is located between open space areas in Palo Alto (Foothills Park), and Portola Valley (Hawthorns property of Midpeninsula Regional Open Space District), and its development has the potential to impact the creek and its riparian corridor, and disrupt wildlife movement through a key wildlife corridor.

On September 19, 2022, Sierra Club commented on the Project’s potential to impact biological resources due to its encroachment on Los Trancos Creek, its lack of bird-safe glazing treatment on windows and the presence of unrestricted nighttime lighting. Sierra Club emphasized the need for further design modifications and mitigations. Sierra Club brought its concerns to the Palo Alto City Council (“Council”) on January 23, 2023.

II. Palo Alto City Council Appropriately Declined to Approve the Project.

At the January 23, 2023 meeting, the Council considered the proposed Project and evaluated the MND, reaching the conclusion that based on the evidence before it, it could not reasonably conclude that the Project's adverse environmental effects had been sufficiently mitigated. On that basis, the Council remanded the Project to the Planning and Development Department to evaluate further design modifications to meet the following objectives:

- (a) Evaluate a Project design that provides for approximately a 50-foot setback from the top of the bank;
- (b) Evaluate effective bird-safe glazing treatment of all glass surfaces achieving the American Birds Conservancy Threat Factor rating of 15;
- (c) Eliminate fencing that could impede wildlife movement along the creek;
- (d) Minimize nighttime lighting along the riparian corridor and allow only minimal lighting in all other locations. Lighting should not interfere with wildlife movement through the landscape, and all outdoor lighting should be limited to a Correlated Color Temperature of 2700K or less and extinguished at 11 pm; and
- (e) Pool should be covered and fenced in a way that ensures that small animals, such as amphibians and reptiles cannot enter the swimming pool.

The Council also requested that staff return to Council with a plan and timeline and amend the Zoning Code Comprehensive Plan Policy N.3.3 and Program N.3.3.1.

Sierra Club supports the Counsel's action remanding the MND for further consideration for the reasons explained below.

III. CEQA Requires That the MND Must Be Revised and Recirculated for Public Comment.

In light of the Council's action, Sierra Club requests that the MND be revised to address the design changes, and be recirculated for public comment prior to reconsideration by the Planning and Development Department and Council. (See Pub. Res. Code, § 21092.1; CEQA Guidelines, §§ 15088.5, 15073.5; *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 447.)

Where an MND is "substantially revised" after public notice, but prior to adoption, the lead agency is required to recirculate it for public review. (See CEQA Guidelines, § 15073.5(a).) CEQA Guidelines clarify that a "substantial revision" means: (1) a new, avoidable significant effect is identified and mitigation measures or project revisions must be added in order to reduce the effect to insignificance, or (2) the lead agency determines that "the proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new

measures or revisions must be required.” (*Id.* at § 15073.5 (b)(1)-(2).) Courts have held that recirculation is generally required when the addition of new information would deprive the public of a meaningful opportunity to comment on substantial adverse project impacts. (*Id.*; see also *Laurel Heights Improvement Ass’n v Regents of Univ. of Cal.* (1993) 6 Cal.4th 1112.)

The Sierra Club raised legitimate concerns that the Project’s mitigation measures will not reduce the Project’s impacts to biological resources reliant on the Los Trancos Creek riparian corridor to below the level of significance. The Council found that the MND as presented on January 23, 2023, could not be approved, without further modifications. The Council’s deferral of approval of the MND underscored the Sierra club’s concerns that the Project, without additional design modifications, may adversely impact biological resources.

Because design modifications are necessary to avoid adverse effects on biological resources, the requirement for recirculation of this MND is met. (CEQA Guidelines, § 15073.5 (b)(1)-(2).) This MND must be “substantially revised” because “new measures or revisions” are required to eliminate adverse impacts to biological resources. (CEQA Guidelines, § 15073.5 (b)(1)-(2).) The purpose of recirculation—to give the public and other agencies an opportunity to evaluate the new data and the validity of conclusions drawn from it—is also compelling given public concern regarding the Project. (See *Spring Valley Lake Ass’n v City of Victorville* (2016) 248 Cal. App.4th 91, 108.) As lead agency, the Planning and Development Department must revise and recirculate the MND in order to ensure that additional measures taken by the Planning Department will be sufficient to avoid Project impacts to the Creek.

A. The 20-Foot Creek Setback is Inadequate To Avoid Significant Impacts.

At the Site, Los Trancos Creek exists in a natural state. (MND, p. 4 [“undeveloped... dominated by oak woodland, riparian woodland.”]) Riparian zones, like Los Trancos Creek, contain both aquatic and terrestrial plant and animal species and unusually high species diversity. Riparian zones are also important migratory corridors. A continuous, wide buffer for a riparian ecosystem is essential to protect water quality, reduce erosion, and provide migratory and wildlife corridors and a wide riparian ecosystem is also important to provide shading and buffer fish spawning and nursery areas.

The Project includes only a 20-foot setback from Los Trancos Creek in reliance on Palo Alto’s outdated Stream Corridor Protection Ordinance (“SCPO”). (See Palo Alto Municipal Code § 18.40.140.) Compliance with SCPO, however, does not ensure that direct and indirect impacts to biological resources will be avoided and in fact further design modifications are necessary to mitigate the impacts of the Project to below a level of significance.

The MND asserts that no direct impacts to aquatic habitat would occur (MND, p. 29), however, it acknowledges the likelihood of indirect impacts from runoff or erosion which could impact water quality and significantly impact steelhead designated critical habitat. (*Id.*) It seeks to mitigate them through imposition of Bio-3, which prevents ground disturbance within 20-feet of the Creek and requires Best Management Practices be developed for grading and construction. (MND, pg. 30.) In order to minimize the likelihood of these impacts, a wider riparian buffer is needed.

First, reliance on SCPO's 20-foot riparian setback is outdated and based on recommendations which some regulatory agencies have discarded in favor of more recent scientific studies showing that effective buffer distances are between 50 and 100 feet. (See Sierra Club Comment Letter, pg. 3 [citing San Francisco Regional Water Quality Control Board's ("SFRWQCB") "Local Government Riparian Buffers in the San Francisco Bay Area"].) The SFRWQCB Report cites several studies showing the importance of adequate riparian corridor building setbacks.¹ The SFRWQCB regulates construction near streams, and imposes significant buffers, especially in open space areas like this Project site. (See Sierra Club Comment Letter, pg. 3.)

Similarly, other agencies recognize the importance of imposing buffers from waterways. Santa Clara County and the Santa Clara Habitat Agency require buffers of 150 feet from waterways in locations with waterways in a predominantly natural state similar to this Project siting. (See Santa Clara County General Plan Policy R-RC 37.) Its General Plan states, "[l]ands near creeks, streams, and freshwater marshes shall be considered to be in a protected buffer area consisting of...150 feet from the top bank on both sides where the creek or stream is predominantly in its natural state" as it is here to protect creeks. Nearby, Stanford University's Community Plan Policy RC-7, addresses buffer zones along creeks, and contains a cross-reference affirming the policy of Santa Clara County General Plan R-RC 37.

Finally, according to the MND, the Project will excavate approximately 280 cubic yards of soil (80 cubic yards for the house and 200 cubic yards for the pool), which will "be dispersed evenly throughout the site and would not be exported." (MND, p. 8.) Yet, the MND fails to identify the precise plan for this excavated and redeposited soil, such as where the excavated soil will be dispersed, whether it will be deposited close to the Creek, and how much buffer area from the Creek will be undisturbed by the soil. In addition, the MND does not analyze the impact to biological resources of depositing excavated soil on natural areas, including the Creek and existing plants and animals – nor does it analyze whether placing this dispersion of soil will be likely to increase erosion and sedimentation into the Creek. Without

¹ See "Buffer Distances Estimates of effective buffer distances for sediment and nutrient filtration vary, but most of the scientific studies suggest distances between 50 and 100 feet for this purpose." (See Sierra Club Letter, p. 3 [citing Jones & Stokes 2002].)

this information, the public cannot meaningfully evaluate the adverse impacts to biological resources.

B. The Project Should Utilize an Updated Stream Corridor Protection Ordinance.

Palo Alto's SCPO is outdated, and overdue for revision. Back in 2017, over five years ago, the City of Palo Alto updated its General Plan Policy and recommended that the Stream Corridor Protection Ordinance should be strengthened. As a result, compliance with this Ordinance alone does not ensure the Project will adequately protect biological resources. On January 23, 2023, the City Council directed the Planning Department to address the lengthy delay and propose a timetable for its revision.

Palo Alto Comprehensive Plan Policy N3.3 Program N3.3.1 seeks to update this ordinance, expressing a desire for a 150-ft buffer in locations like the Project site, which is west of Foothill Expressway:

Program N3.3.1--Update the Stream Corridor Protection Ordinance to explore 150 feet as the desired stream setback along natural creeks in open space and rural areas west of Foothill Expressway. This 150-foot setback would prohibit the siting of buildings and other structures, impervious surfaces, outdoor activity areas and ornamental landscaped areas within 150 feet of the top of a creek bank. Within the setback area, provide a border of native riparian vegetation at least 30 feet along the creek bank

Since the City Council ordered the Planning Department to present a timetable for the revision of the SCPO, this Project should adhere to the revised Stream Corridor Protection Ordinance, or at the very last, comply with the setbacks in surrounding communities.

C. The MND is Unclear Whether the Project Meets the Minimum 20-Foot Setback Requirement.

Finally, the MND is unclear whether the Project as presently configured even meets the substandard 20-foot setback required under the current Ordinance because the MND is unclear how and from what points the measurements were obtained. SCPO specifies development at "20 feet landward from the top of bank or to a point measured at a ratio of 2:1 (horizontal: vertical) landward from the toe of bank, whichever is greater." This confusion should be addressed and clarified in a revised MND so the public can better understand the potential impacts to the Creek.

D. Bird Safety is Also Threatened by the Project and Can Easily be Protected.

The 20-foot setback also means that outdoor lighting cannot achieve the ambition of Program N3.3.3 which states:

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For all creeks, update the Stream Corridor Protection Ordinance to minimize impacts on wildlife by requiring careful design of lighting surrounding natural riparian corridors to maximize the distance between nighttime lighting and riparian corridors and direct lighting away from the riparian corridor. A wider setback should help achieve this goal.

Bird collisions with glazed surfaces are especially frequent in riparian corridors, and many jurisdictions have regulations in place to reduce and mitigate this hazard within 300-ft of riparian corridors and/or open space.

The American Bird Conservancy advises that the following elements are especially critical near habitat areas such as water bodies and open space: (1) minimizing the use of glass; (2) placing glass behind screening; (3) using glass with inherent properties that reduce collisions, such as fritting or using bird safety glazing treatments on glass surfaces.

Palo Alto requires bird friendly design for commercial buildings, but not for homes. Bird collisions, however, occur primarily (99%) at homes and low rise buildings. The proposed project is likely to contribute to cumulative impact on birds and should be required to apply bird safety measures.

IV. Conclusion

Sierra Club respectfully requests that the Planning and Development Department of the City of Palo Alto substantially revise the MND for the Proposed Project and recirculate it for public comment, consistent with CEQA and its implementing guidelines.

Very truly yours,


JAMIE JEFFERSON



To: Mayor Kou and Palo Alto City Council

January 22, 2023

Re: 575 Los Trancos Road Residential Project

Dear Mayor Kou and Council Members,

The Santa Clara Valley Audubon Society (SCVAS) and the Sierra Club Loma Prieta Chapter (SCLPC) are environmental organizations that work to protect natural resources and promote the enjoyment of nature. We provided comments on the draft IS/MND for the 575 Los Trancos Project, and we remain concerned after reading the responses to our comments. We maintain that a “fair argument” exists that the Project will significantly impact the environment. (*League for Protection of Oakland’s Historic Resources v. City of Oakland* (1997) 52 Cal. App.4th 896, 904.) A public agency must prepare an EIR whenever substantial evidence supports a fair argument that a proposed project “may have a significant effect on the environment.” (*Protect Niles v. City of Fremont* (2018) 25 Cal.App5th 1129, 1138-1139. This low threshold for the preparation of an EIR, and a “preference for resolving doubts in favor of environmental review” is met here. (*Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 332.)

The city has discretion over the project and should require that the project be re-designed at a minimum of 55 feet from the top of the bank of Los Trancos creek (in line with the neighboring home) or a wider setback, ideally 150 feet. If this wider buffer/setback is not feasible, the city must prepare an EIR to fully analyze and mitigate the impacts and to consider alternatives to the proposed size of the project and its location on the parcel.

Palo Alto’s Comprehensive Plan Policy N3.3 and program N3.3.1 seek a range of setbacks from creeks, where a 150 foot setback is cited as appropriate for new development west of Foothill Expressway. The program notes that single-family residential development can be exempt from this larger setback but an ordinance that specifies setback width and conditions for a waiver of the setbacks has yet to be developed. A 20 foot setback from top-of-bank, however, seems very contradictory to the intent of the Comprehensive Plan to protect Palo Alto's waterways and riparian ecosystems.

The Palo Alto Comprehensive Plan Land Use definitions include the definition of **Streamside Open Space**. **This designation is intended to preserve and enhance corridors of riparian vegetation along streams.** Hiking, biking and riding trails may be developed in the streamside open space. The corridor

will generally vary in width up to 200 feet on either side of the center line of the creek. As we argue below, the proposed Project does not preserve or enhance the Los Trancos Creek Corridor. With a parcel larger than 5 acres, a project can be placed further from the creek that would be consistent with the intent of the Palo Alto Comprehensive Plan to protect the City's riparian corridors.

Palo Alto Zoning Code Section 18.40.140, Stream Corridor Protection, requires a 20 foot distance between the top of the creek bank and structures (as well as decks, swimming pools, spas, hot tubs and parking lots) or a 2:1 setback from the toe of the bank, whichever is greater.

To protect water quality and riparian habitat, including trees, the City of San Jose defines the riparian corridor at the top of the bank or the dripline of the riparian vegetation, whichever is greater. With the exception of downtown areas, this policy requires a setback of 35 feet to 100 feet from the Riparian Corridor (depending on the order of the creek).

The proposed development includes elements that are set 20 feet from the top of the bank. However, several Project elements are likely to require encroachment into this 20 foot setback for construction and future maintenance, and parts of the home is are located within/under the dripline of the riparian canopy (see discussion below). This is despite the statement in Appendix A Biological Resources Constraints Analysis pages 9-10:

“Project plans appear to avoid impacts to Los Trancos Creek, however the proposed project may result in indirect impacts to the creek and direct or indirect impacts to riparian habitat if project activities occur within the dripline of the riparian canopy. “

The parcel is a Local Responsibility Area (LRA) Fire Protection Zone, which is governed by Palo Alto Muni Code's Wildland-Urban Interface (WUI) regulations. (Some foothills parcels are State Responsibility Area (SRA), which have slightly different fire-protection rules.) Section 15.04.430 Muni Code requires that WUI parcels:

“Shall at all times maintain an effective defensible space by removing and clearing away flammable vegetation and combustible growth from areas within 30 feet of such buildings or structures.”

Mitigation BIO-3, Best Management Practices for Protection of Steelhead and Aquatic Habitat, requires (emphasis added):

- No vegetation removal, ground disturbance or construction shall occur within the creek or the 20 foot creek setback zone, which shall be demarcated with high visibility orange construction fencing to ensure avoidance of impacts to the aquatic habitat.

A 20 foot setback is an inadequate buffer to reduce or avoid impacts from runoff or erosion on the aquatic habitat and the critically endangered steelhead.

The parcel is 5.38 acres, with a width of more than 1300 feet, and the depth is up to 250 feet. The parcel should allow ample space for a development that provides an adequate buffer from the creek.

The San Francisco Bay Regional Water Quality Control Board provides directions for effective riparian buffers:

“Estimates of effective buffer distances for sediment and nutrient filtration vary, but most of the scientific studies suggest distances between 50 and 100 feet for this purpose (Jones & Stokes 2002). Although any buffer distance from the top of bank is helpful for maintaining channel stability, a minimum 33-foot riparian buffer is required for contributing to a significant reduction in sediment levels (Corely et. al. 1999, Peterson et. al. 1992, as cited in Jones and Stokes 2002).” -- “Local Government Riparian Buffers in the San Francisco Bay Area”, San Francisco Bay Regional Water Quality Control Board, page 17,¹

The IS/MND acknowledges that direct disturbance and indirect impacts from runoff or erosion could impact water quality; therefore, the project has the potential to impact steelhead designated critical habitat and the impact is potentially significant. The IS/MND provides a meager 20 foot setback and no information on Los Trancos creek geo-morphological processes, ground water subflows on the project site and erosion processes on site. The project must prepare a full Environmental Impact Report to study, assess and disclose potential erosion and bank failure risks and provide adequate buffers and BMPs for protection of steelhead (*Oncorhynchus mykiss irideus*) and aquatic habitats.

There is an inherent conflict between Mitigation Measure BIO-3 and the required PAMC 15.04.200 Defensible Space.

The parcel is a Local Responsibility Area (LRA) Fire Protection Zone, which is governed by Palo Alto Municipal Code's Wildland-Urban Interface (WUI) regulations. Section 15.04.430 requires that WUI parcels

“Shall at all times maintain an effective defensible space by removing and clearing away flammable vegetation and combustible growth from areas within 30 feet (9144 mm) of such buildings or structures.”

The Defensible Space requirements allows no flammable vegetation to be located within 30 feet of the structures.

The IS/MND proposes that vegetation that is green and healthy is not considered flammable, and therefore the riparian vegetation within 30 feet of the building footprint is expected to remain as-is with maintenance to remove any dead vegetation as needed.

However, as seasons change or vegetation dies, leaves and branches drop, dead annual grasses and tall weedy species dried in the summer will be removed by the homeowners to maintain defensible space. Maintaining a 30 foot defensible space is not plausible without, over time, significantly and unavoidably impacting the sensitive riparian habitat, impacting water quality and the species that depend on the riparian ecosystem.

1

https://www.waterboards.ca.gov/sanfranciscobay/publications_forms/documents/bufferreport1204.pdf

Dead and decaying material is in fact directly or indirectly required habitat for many species, including the special status species that could be found on the project (including: Santa Cruz black salamander (*Aneides niger*), California giant salamander (*Dicamptodon ensatus*), California red-legged frog (*Rana draytonii*), western pond turtle (*Emys marmorata*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), and the Dusky footed woodrat (*Neotoma fuscipes annectens*)). These species use dead and decaying materials to find or build shelter and find food. This is likely the reason why BIO-3 directs “No vegetation removal, ground disturbance or construction shall occur within the creek or the 20-foot creek setback zone.”^{2 3 4}

To ensure that Bio-3 and the Defensible Space requirements are consistent, a minimum buffer of 50 feet. should be required. This should allow vegetation to be removed in the 30 foot space, and allow the 20 foot riparian buffer to comply with Mitigation Measure BIO-3 and function as intended..

Mitigation BIO-3, Best Management Practices for Protection of Steelhead and Aquatic Habitat also directs (emphasis added):

- Best Management Practices (BMPs) **shall be developed** and implemented during all grading and construction activities to prevent erosion and sedimentation into the creek and to prevent the spill of contaminants in or around the creek.

The IS/MND defers development of BMPs to the future, hence the words “**Shall be developed**”. **CEQA does not allow deferred mitigations in a Mitigated Negative Declaration!** The reason for this is that in the absence of specific, site-specific information and criteria for the protection of the environmental resources that could be impacted, it is not possible to find that future mitigation measures will indeed reduce the impact to a less-than-significant level and in this case - prevent erosion and sedimentation to a level that protects Steelhead and Aquatic Habitat. So while deferred mitigation may be permissible if the mitigation measure is based on adequate studies and commits an agency to a realistic performance standard or criterion, this bar is not met in BIO-3.

The IS/MND includes some specific practices to be included in the future BMPs, including practices for preventing and addressing leaks and spills. Sediment and erosion control measures, however, are vague and provide no realistic performance standard or criterion criteria. The IS/MND provides no information on erosion, sedimentation and incision processes in Los Trancos Creek at the project site, and provides no evidence that the vague BMPs aimed to prevent erosion during construction suffice to provide adequate protection, or evidence that the 20 foot buffer suffices to protect the creek from bank failure due to the development of this project.

² “Found under rocks near streams, in talus, under damp logs, and other objects.”, Santa Cruz Black Salamander, Myers and Maslin, 1948, <https://californiaherps.com/salamanders/pages/a.niger.html>

³ “They also use grassy areas near water sources to regulate their body temperature, find cover, forage, mate and hibernate.” (Annual forbs and grasses are predominant in California and are dead in summer and fall.), San Francisco Garter Snake, US. Fish and Wildlife Service, <https://www.fws.gov/species/san-francisco-garter-snake-thamnophis-sirtalis-tetrataenia>

⁴ “These rodents are known for building stick houses that reach up to five feet in height and eight feet in diameter.”, Dusky-Footed Woodrat, The World Wildlife Federation, <https://www.nwf.org/Educational-Resources/Wildlife-Guide/Mammals/Dusky-Footed-Woodrat>

There is an inherent conflict between Mitigation Measure BIO-3 and the directions of the Geotechnical Report.

Page 4 of the Geotechnical Engineering Study states that the site contains “loose to very dense sand with variable percentages of clay and gravel”. The development’s large impervious area will deposit a large amount of runoff near the creek, which could cause the site’s loose soil to erode into the creek. The IS/MND has not studied or mitigated this potential harm to Los Trancos Creek. Moreover, additional work within the setback is mandated on Page 14 of the Geotechnical Engineering Study. The study recommends that the project “direct surface runoff away from site improvements at a minimum 5 percent grade for a minimum distance of 10 feet.” Again - this work is likely to involve additional grading within the Riparian area.

The project’s Geotechnical Engineering Study (Appendix C of the IS/MND) discusses the site preparation on page 8:

Due to the loose surficial soil, a program of over-excavation and backfilling is deemed necessary. The upper loose soil within the area of the proposed improvements should be (over-excavated to 2 1/2 feet bgs. The lateral extent of the over-excavation should extend at least 5 feet beyond the perimeter of the proposed residence.

To be built as designed, the Project will excavate at least 15 feet from the top of the bank, with construction activity being performed even closer. This is inside the Riparian dripline, which means that they likely will be disturbing the roots of the Riparian canopy.

The Biotechnical Report did not consider subsurface flow and the impact of over-excavation and backfilling on subsurface flows has not been analyzed or mitigated. Riparian trees depend on subsurface flow, yet the IS/MND provides no discussion of the impacts to the riparian ecosystem.

Impact to riparian tree #30

The Project includes a building wall to be constructed at 11 feet from oak tree #30, under the canopy and well within the drip line of this riparian tree (see Figure 5 on draft IS/MND p.7). In Appendix B, Arborists Report Tree #30 is described as a Coast live Oak (*Quercus agrifolia*) and recommends that this tree should be pruned and cabled. The arborist report provides “A building wall is located at 11 feet from oak tree #30. Hand excavation under the Project Arborist supervision is recommended when working within 10 times the tree’s diameter. Encountered roots must be cleanly cut using a hand saw or loppers...”

The Stream Corridor Protection Code Section 18.40.140, (c) provides, All native riparian vegetation within 100 feet from the top of bank shall be retained unless its removal is approved by the director of planning and development services. To retain Tree #30, not only should excavation under the dripline be prohibited, but an adequate and intact root protection zone should be provided.



Based on scientific references⁵, the roots of a tree stretch beyond its drip line. To thrive, Live Oak trees require a buffer of their dripline + $\frac{1}{3}$ of the radius from the trunk of the tree to the dripline. For tree #30, this means 21.5 feet from the trunk of the tree. As proposed, the project is likely to cause the death of this riparian tree.

Deferred Mitigation

In *Save the Agoura Cornell Knoll v. City of Agoura Hills* (February 24, 2020) 2020 Cal. App. LEXIS 222, in a detailed decision, the Second District Court of Appeal affirmed the trial court's judgment and concluded that a proposed mixed-use development project in Los Angeles County presented potentially significant impacts requiring the preparation of an EIR, not an MND. The trial court found there was substantial evidence to support a fair argument that the Project may have significant environmental impacts on cultural resources, sensitive plant species, oak trees, and aesthetic resources and the proposed mitigation measures were inadequate to reduce impacts to a less than significant level⁶.

Palo Alto's 575 Los Trancos IS/MND suffers similar inadequacies as did the City of Agoura Hills MND. The City made no effort to study potential erosion, and instead deferred mitigations (the development Best Management Practices for Protection of Steelhead and Aquatic Habitat) to the future.

With no studies of the geomorphology and erosion processes of Los Trancos Creek and how these may be exacerbated due to impacts of this project, no studies of the the project site hydrology (especially subsurface flow) and how the over-excavation and backfilling that are required due to the site's upper loose soil could impact the flora and fauna of the riparian ecosystem, and no criteria for development of BMPs or for ongoing monitoring, the 575 Los Trancos Road IS/MND fails to comply with CEQA. The mitigations provided are simply insufficient to avoid or reduce impacts to the creek, riparian ecosystem, trees and wildlife. Mitigation measure BIO 3 failed to explain how the future BMP would mitigate potentially significant effects on Biological Resources and protect of Steelhead and Aquatic Habitat

Furthermore, the IS/MND failed to analyze whether a viable buffer from the creek can be provided on this 5.38 acre parcel, or to specify performance criteria evaluating the feasibility of avoidance as an alternative to excavation within the dripline of riparian trees, and lighting and activities in close proximity to the creek. There is no indication that it is impractical or infeasible for the City to articulate specific performance criteria for evaluating and monitoring the efficacy of the BMPs.

Lighting

Night time lighting disrupts normal animal behaviors, circadian rhythms, and threatens the health of organisms. Section 18.40.140 of the Palo Alto Municipal code requires,

“Nighttime lighting shall be directed away from the riparian corridor of a stream”.

⁵ On the Maximum Extent of Tree Roots. E.L. Stone and P.J Kalisz, *Forest Ecology and Management*, 46 59-102, 1991, and *Understanding Trees*, p. 44, 202, Robert Kourik Metamorphic press, 2015 ISBN 978-0-9615848-6-3

⁶ *Save the Agoura Cornell Knoll v. City of Agoura Hills* (2020) 46 Cal.App.5th 665

In addition, in the City's Guidelines Within Streamside Review Area ("Streamside review area" means all properties abutting a stream or located within 50 feet from the top of a stream bank, except those properties separated from the stream by a public street."), the guidelines include,

"(a) The distance between nighttime lighting and the riparian corridor of a stream should be maximized"

The project proposes accommodations of lighting concerns on street traffic and side neighbors but the proposed mitigations of shining lights downward with such a minimal setback from a creek that hosts special status species are inadequate to prevent disruption to steelhead⁷ and other aquatic, terrestrial and avian species that depend on the riparian corridor.

The staff report includes three mitigations: (1) Automatic blackout shades (2) Automatic vacancy sensors and (3) Motion sensors for exterior lighting. There are no guarantees that these mitigations will continue to be maintained or used. It is almost guaranteed that the light will interfere with wildlife living or moving in or along the creek buffer, as these may actually trigger motion sensitive lighting.

A more effective mitigation would be to simply move the house further away from the Riparian corridor. In addition, require all outdoor lighting to be dimmable and in the yellowish range (2700 Kelvin or less) to reduce light pollution and the attraction of migratory birds and insects.

Bird Safe Design

The entire project is located less than 300 feet from the lush riparian corridor of Los Trancos Creek, a place where birds should be safe from collision with glass. Yet the buildings seem to include transparent, see-through glass elements that are known to be extremely hazardous to birds in flight.



DARK ANODIZED ALUM WDWS & DOORS



CLR GLASS GUARDRAILS, DECKING W/ NATURAL WD APPEARANCE

Homes in similar locations in Cupertino are required to provide bird safety glazing treatment on 90% of their facades. Palo Alto should do the same in Open Space zoning locations. For this project, the City should require:

⁷ Artificial light at night has an impact on fish behavior, altering their patterns of feeding, migrating, and predator avoidance.

<https://www.usgs.gov/centers/western-fisheries-research-center/news/shedding-some-light-issue-investigating-hw>

- Elimination of transparent, see-through and other hazardous architectural elements.
- Effective bird-safe glazing treatment to 90% of all glass surfaces. Please require glazing that achieves an American Bird Conservancy Threat Factor rating of no more than 15. A product database that offers rated glazing solutions is available online⁸.
- Prohibit UV glazing treatments, angled glass and overhangs from being considered bird-safety glazing treatments, as these have been proven ineffective, especially in proximity to habitat areas..

We appreciate your attention to our concerns,

Sincerely,

Shani Kleinhaus, Ph.D. Environmental Advocate
Santa Clara VALley Audubon Society

Mike Ferreira, Executive Committee Member
Sierra Club Loma Prieta Chapter

⁸ <https://sfplanning.org/standards-bird-safe-buildings?page=2506>

September 19, 2022

City of Palo Alto Planning and Development Services Department
City Hall
250 Hamilton Ave
Palo Alto, CA 94301

SENT VIA E-MAIL TO: emily.foley@cityofpaloalto.org and jodie.gerhardt@cityofpaloalto.org

Subject: 21PLN-00196, 575 Los Trancos Road (APN 18246012) Draft Initial Study and Mitigated Negative Declaration

Dear Ms. Foley,

On behalf of the Midpeninsula Regional Open Space District (Midpen), we respectfully submit the following comments regarding the Draft Initial Study and Mitigated Negative Declaration (ISMND) for the proposed residential development at 575 Los Trancos Road in the City of Palo Alto. As the owner of an adjacent parcel (APNs 079-080-050, -080, and -090), Midpen appreciates the opportunity to comment on this development and the time extension to submit our agency's comments to September 19th at 5 pm.

Comprised of over 65,000 acres of acquired and protected open space on the San Francisco Peninsula, Midpen is one of the largest regional open space districts in California. Our mission is to acquire and preserve a regional greenbelt of open space land in perpetuity, protect and restore the natural environment, and provide opportunities for ecologically sensitive public enjoyment and education.

While much of Midpen's open space lands are along the ridge of the Santa Cruz Mountains, Midpen owns and manages Windy Hill Open Space Preserve (Preserve), including the Hawthorns Area, which is located in the Town of Portola Valley and is located within a ¼ mile to the project site. Based on the project's proximity to the Hawthorns Area, we would like to share specific concerns regarding Biological Resources (BIO) that should be considered as part of the environmental analysis for the ISMND as well as for the design and approval of the project.

Biological Resources

Riparian Habitat

Based on the project plans, it appears the development is adhering to the City's Stream Corridor Ordinance's minimum creek setback of 20-ft from Los Trancos Creek. To improve the

clarity of the project plans and environmental review and to show the proposed structure's proximity to the creek, please provide a figure that includes the proposed building's footprint as shown on Figure 2 with the creek and property lines as shown on Figure 5.

According to the ISMND, "No vegetation removal, ground disturbance or construction shall occur within the creek or the 20-foot creek setback zone." Los Trancos Creek supports critical habitat for steelhead, central California coast (CCC) distinct population segment (steelhead) (*Oncorhynchus mykiss irideus*) and other aquatic species, where building the structure within close proximity to the creek could result in significant impacts to the aquatic species. In addition, the Project may need to modify riparian vegetation that are critical to supporting these aquatic species in order to maintain adequate defensible space for the newly constructed structures (which is usually requested to be 30-100 feet surrounding each structure). As such, the homeowner would need to encroach upon the creek setback area to remove additional vegetation to provide adequate defensible space in the future. This long-term management action would result in the need to remove/trim riparian vegetation. Additional permitting approval would be needed from regulatory agencies who may not be supportive of or approve vegetation modification for these purposes to ensure adequate protection of the creek and associated riparian vegetation. These actions would result in additional impacts on the riparian corridor, steelhead critical habitat and other aquatic species, which the ISMND has not fully analyzed and addressed in the BIO mitigation measures. In addition, please confirm that the City of Palo Alto Fire Department has reviewed the project plans to ensure that adequate defensible space can be provided for the new home and accessory structure located with only a 20-foot setback from the creek without impacting the riparian vegetation.

Wildlife Species and Habitat

The proposed swimming pool's placement in close proximity to the creek could result in the entrapment of semiaquatic species such as California Giant Salamander, Santa Cruz Black Salamander, Western Pond Turtle, California Red Legged Frog (CRLF), and San Francisco Garter Snake (SFGS) that may travel across the landscape. These potential additional impacts of entrapment and drowning which could result in the taking of these species should be analyzed and addressed in the BIO mitigation measures with consideration to include wildlife barriers and/or escape ramps installed to prevent entrapment.

The proposed Project is located in mountain lion habitat and wildlife corridor. The footprint of the new structure appears to be at least a 300-foot long (or greater) north to south barrier to wildlife passage parallel to Los Trancos Creek. This Project could cause wildlife such as deer and mountain lion to circumnavigate the structure in order to travel between open space areas located to the east and west of the proposed project resulting in additional fragmentation of the local habitat. The potential impacts to wildlife movement and fragmentation should be analyzed and addressed in the BIO mitigation measures.

Phytophthora / Sudden Oak Death

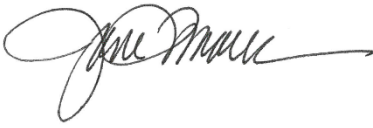
The area surrounding the proposed project has been heavily impacted by *Phytophthora*-caused plant diseases, including Sudden Oak Death (SOD), which was detected within close proximity to the project site in 2019¹. SOD has been responsible for the death of over one million oak and tanoak trees in California alone. Mortality rates are greater than 50 percent in some areas and continue to increase. Due to the known presence of SOD within the vicinity of the Preserve and the project site, attention is needed to protect the genetic integrity of native oak trees and reduce the potential risk of spreading SOD and related *Phytophthora* pathogens.

Should the project move forward, Midpen requests that the City incorporate appropriate protocols as part of the Conditions of Approval for the Resource Management Permit to minimize the spread of *Phytophthora spp.*, including disinfecting tools and removing soil from heavy equipment before entering and when leaving the project site. At a minimum, replacement trees should be noninvasive (according to the California Invasive Plant Council), native and ideally native oaks. For replacement oak trees, Midpen requests that the project applicant use acorns sourced from within the watershed rather than nursery stock. Trees grown in nurseries have been known to carry *Phytophthora spp.* and spread the pathogen where planted. Notably, current research suggests that larger healthy trees in SOD infested areas may carry a genetic resistance to the pathogen. Midpen would be pleased to issue a free permit for acorn collection at Windy Hill, Thornewood, or Teague Hill Open Space Open Space Preserves. For additional resources, please see the four attached best management practice documents for conducting vegetation work in areas with potential *Phytophthora* infection.

Midpen did not receive project notification for review of the ISMND, such that we request Jane Mark, Planning Manager (jmark@openspace.org), be added to the City's future notifications for 575 Los Trancos Road project and other development projects located within the vicinity of the Hawthorns Area of Windy Hill Open Space Preserve. We appreciate the opportunity to comment on this development and the time extension of the public comment period to September 19th at 5 pm. Should you have any questions about this letter, please contact me at (650) 625-6563 or via email.

¹ Vollmar Natural Lands Consulting (2019). Botanical Resources Survey Report: Hawthorns Property, Windy Hill Open Space Preserve.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jane F. Mark', with a long horizontal flourish extending to the right.

Jane F. Mark, AICP

Planning Manager

Attachment 1: Guidelines to Minimize Phytophthora Contamination

Attachment 2: Midpen Phytophthora Sterilization Guidelines

Attachment 3: Sudden Oak Death Precautions and Acorn Planting Protocols

Attachment 4: Guidelines to Minimize Phytophthora Pathogens in Restoration Nurseries

CC: Ana Ruiz, General Manager

Susanna Chan, Assistant General Manager

Guidelines to Minimize *Phytophthora* Contamination in Restoration Projects

These guidelines aim to avoid contamination of restoration sites with exotic pathogenic *Phytophthora* species or other plant pathogens during planting and related activities.

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Definitions:

- **Holding facility or nursery:** A facility where nursery stock is maintained for a short to extended period of time prior to planting. Plant maintenance activities may include irrigation, fertilization or light pruning, as necessary. Nurseries involved in most other activities, including propagation or repotting are considered production nurseries.
- **Job site:** The job site includes areas for planting, soil stockpiling, parking, and access roads within and leading to the site.
- **Nursery stock:** All types of nursery grown plants.
- **Planting area:** Area being planted for habitat restoration, erosion control, or other purposes.
- **Planting site:** An individual planting basin or other spot, typically no larger than one square yard, where an individual plant or several grouped plants will be installed.
- **Sanitize:** Clean and treat with a sanitizing agent or via a lethal heat exposure to kill plant pathogens present as external contamination.
- **Sanitizing agent:** Materials such as bleach (sodium hypochlorite solutions), alcohol, quaternary ammonium compounds, and peroxides that can directly kill exposed propagules of *Phytophthora* or other plant pathogens when used properly. Most sanitizing agents can also kill a wide variety of bacteria and deactivate many viruses. Note that most materials referred to as fungicides are applied to plants to suppress disease but may not kill the pathogens and are not sanitizing agents.

I. Construction projects

In an effort to minimize the spread of plant pathogens the exterior and interior of all equipment and tools must be clean and free of debris, soil and mud (including tires, treads, wheel wells and undercarriage) prior to arrival at a new job site.

General guidance – suggested standard operating procedures:

- a. Vehicles need to stay on established roads unless infeasible.
- b. In general, vehicles and equipment need to be maintained clean – interior and exterior free of mud, debris and soil especially during the wet season.
- c. In general, work shoes need to be kept clean- inspect shoe soles and knock mud, debris and soil off treads before moving to a new job site.
- d. To minimize the potential for spreading potentially contaminated soil and time required for decontamination, if possible, avoid vehicle traffic and field work when soils are wet enough to stick readily to shoes, tools, equipment and tires.

II. Planting at Field Sites

Overview: Three general routes for the spread of *Phytophthora* and other soilborne plant pathogens are addressed in these guidelines. These routes are (1) contamination of planting material, including clean nursery stock, and other materials installed at the site, (2) inadvertent introduction of pathogens to a job site from other outside sources (e.g., via contaminated equipment), and (3) potential movement of undetected contamination within the planting area.

These guidelines assume that all nursery stock was originally grown under phytosanitary conditions and tested as remaining free from disease in the nursery (refer to nursery guidelines). These guidelines address how to protect the planting area from subsequent contamination during the delivery, storage onsite, and installation of planting stock and materials.

1. Prevent contamination of clean nursery stock or other clean plant materials

Planting stock shall be protected from potential contamination from the point that it leaves the production nursery or collection site until planting. Note that nursery stock has a high risk of infection by *Phytophthora* species if exposed to these pathogens. Excluding these pathogens provides the only viable option for maintaining outplanted nursery stock free of *Phytophthora*.

1.1. Maintaining nursery stock in a holding facility

When holding stock for an extended period (after delivery from production nursery and before planting), the following practices need to be followed to prevent contamination of the nursery stock with *Phytophthora*.

- 1.1.1. Delivered nursery plants that will be held before planting shall be transferred to cleaned and sanitized raised benches and maintained as described in “Guidelines to Minimize *Phytophthora* Pathogens for holding (non-production) nurseries at restoration sites, Section 3.”

1.2. Handling and transporting nursery plants at the job site

- 1.2.1. Nursery plants shall be transported on or in vehicles or equipment that have been cleaned before loading the stock. Truck beds, racks, or other surfaces need to be swept, blown with compressed air and/or power washed as needed so they are visibly free of soil and plant detritus. More information on sanitizing surfaces are described in the Appendix.
- 1.2.2. Keep plants in sanitized vehicles or on sanitized carts, trailers, etc. until delivered to their planting sites. (More information may be found in sections 1.3.3. and 1.3.4.)
- 1.2.3. At the job site, plants shall be handled to prevent contamination until delivered to each planting site. Nursery stock shall not be placed on the soil or other potentially contaminated surfaces until they are placed at their specific planting sites.
- 1.2.4. If it is necessary to offload plants at the job site, plants may be placed on clean waterproof plastic tarps or other clean, sanitized surfaces. If tarps are used for holding plants, one surface needs to be dedicated for contact with nursery stock and will be cleaned and sanitized to maintain phytosanitary conditions.

1.3. Other planting site inputs

- 1.3.1. Washing, soaking, or irrigation of plant material shall be conducted using clean water sources as specified in the Appendix below. Untreated surface waters should not be used for these purposes.
- 1.3.2. On-site or off-site collection of plant materials, including seed and cuttings for direct planting, shall be conducted in a phytosanitary manner (see guidelines for collection practices at www.calphytos.org).
- 1.3.3. Prior to delivery to the planting areas, mulch, compost, soil amendments, inoculants, and other organic products need to be examined and determined to be low-risk for pathogen introduction. Acceptable materials are those that are free of contamination by plant pathogens based on their composition or manufacturing conditions, or that have been exposed to an effective heat treatment to eliminate pathogens. Such materials must be handled and stored in a manner that prevents contamination. At the job site, delivered materials shall be handled to prevent contamination until delivered to each planting site in the same manner specified for nursery stock in section 1.2 above.
- 1.3.4. All other materials to be installed at the site shall be of new or sanitized material that has not been stored in contact with soil, untreated surface waters, or other potentially contaminated materials. This includes irrigation supplies (such as pipe, fittings, valves, drip line, emitters, etc.), erosion control fabrics, fencing, stakes, posts, and other planting site inputs.

2. Cleaning and sanitation required before entering planting area to prevent introducing contamination from other locations

Phytophthora contamination can be present in agricultural and landscaped areas, in commercial nursery stock, and in some infested native or restored habitat areas. Contamination can be spread via soil, plant material and debris, and water from infested areas. Arriving at the site with clean vehicles, equipment, tools, footwear, and clothing helps prevent unintentional contamination of the planting site from outside sources.

2.1. Vehicles, equipment, and tools

- 2.1.1. Equipment, vehicles and large tools must be free of soil and debris on tires, wheel wells, vehicle undercarriages, and other surfaces before arriving at the planting area. A high pressure washer and/or compressed air may be used to ensure that soil and debris are completely removed. Vehicles that only travel and park on paved roads do not require external cleaning.
- 2.1.2. The interior of equipment (cabs, etc.) should be free of mud, soil, gravel and other potentially contaminated material. Interiors should be vacuumed, washed, and/or treated with sanitizing agents as needed to eliminate pathogen propagules that could be transferred to the planting area.
- 2.1.3. Small tools and other small equipment (including hoses, quick couplers, hose nozzles, and irrigation wands) need to be washed to be free of soil or other contamination and sanitized (see Appendix).
- 2.1.4. Hoses shall be new or previously used only for clean water sources (see Appendix).

2.2. Footwear and clothing

- 2.2.1. Soles and uppers of footwear need to be visibly free of debris and soil before arriving at the planting area. (See the Appendix for more details.)
- 2.2.2. At the start of work at each new job site, worker clothing shall be free of all mud, soil or detritus. If clothing is not freshly laundered, all debris and adhered soil should be removed by brushing with a stiff brush.
- 2.2.3. Gloves and non-porous knee pads must be new (if disposable) or laundered/sanitized at the start of each work day, and/or clean coveralls must be worn. Non-disposable gloves should be made of or coated with material, such as nitrile, that can be sanitized.

3. Prevent potential spread of contamination within planting areas

Phytophthora can also be spread within plantings areas if some portions of the site are contaminated. However, it is not possible to identify every portion of a planting area that may contain *Phytophthora*. Because *Phytophthora* contamination is not visible, working practices should minimize the movement of soil within the planting area to reduce the likelihood of pathogen spread.

Note that areas with higher risk of *Phytophthora* infestation include areas adjacent to planted landscaping, areas previously planted with *Phytophthora*-infected stock, areas with existing or recently removed woody vegetation, disturbed wetlands, and areas directly along watercourses. Areas with low risk of contamination typically include upland sites with only grassy vegetation or sites where surface soils have been removed.

3.1. Worker training and site access

- 3.1.1. Before entering the job site, field workers need to receive training that includes information on *Phytophthora* pathogens and how to prevent the spread of these and other soilborne organisms by following approved phytosanitary procedures. Workers should also be informed about any site-specific phytosanitary practices before work commences.

- 3.1.2. Do not bring more vehicles into the planting area than necessary and keep vehicles on surfaced or graveled roads whenever possible to minimize potential for soil movement.
- 3.1.3. Travel off roads or on unsurfaced roads should be avoided when soil and road surfaces are wet enough that soil will stick to vehicle tires and undercarriages.
- 3.1.4. To allow for adequate decontamination of equipment, tools, gloves, and shoes, avoid planting under overly wet conditions or when soil is saturated.

3.2. Minimize unnecessary movement of soil and plant material within the planting area, especially from higher to lower risk areas

- 3.2.1 Brush off soil from tools and gloves when moving between successive planting sites to prevent repeated collection and deposition of soil across multiple sites.
- 3.2.2. Avoid contaminating clothing with soil during planting operations. Brush off soil accumulations before moving from one planting site to the next. Use nonporous knee pads that are cleaned between planting sites if kneeling is necessary.
- 3.2.3 When possible, plant nursery stock from a given block in the same local area rather than spreading it widely. If a problem is associated with a given block of plants, it will be easier to detect and deal with it if the plants are spatially grouped.
- 3.2.4. Phase work to minimize movement between areas with high and low risk of contamination. Where possible, complete work in low risk areas before moving to higher risk areas. Alternatively, assign personnel to working in either high or low risk areas exclusively to reduce the need for decontamination.
- 3.2.5. Clean soil and plant debris from large equipment and sanitize hand tools, buckets, gloves, and footwear when moving from higher risk to lower risk areas or when moving between widely separated portions of the planting area.
- 3.2.6. All non-plant materials to be installed at the site (irrigation equipment, erosion control fabric, fencing, etc.) shall be handled to prevent movement of soil within the site, especially movement from higher risk to lower risk areas. Materials should be kept free of soil contamination by maintaining them in clean vehicles or carts, trailers, etc., or stockpiling in elevated dry areas on clean tarps until used.

4. Clean water specifications

Objective: use only uncontaminated, appropriately-treated water for irrigation.

- 4.1.1. Water used for irrigating plants needs to be uncontaminated. See Appendix for specifications.

Appendix

A. Procedures for sanitizing tools, surfaces, and footwear

Surfaces and tools should be clean and sanitized before use. Tools and working surfaces (e.g., plant carts) should be smooth and nonporous to facilitate cleaning and sanitation. Wood handles on tools should be sealed with a waterproof coating to make them easier to sanitize.

Before sanitizing items, remove all soil and organic material (roots, sap, etc.) from their surfaces. If necessary, use a detergent solution and brush to scrub off surface contaminants. The sanitizing agent may also be used as a cleaning solution. Screwdrivers or similar implements may be needed to clean soil out of crevices or shoe treads. Brushes and other implements used to help remove soil must be visibly clean and sanitized after use.

After surface soil and contamination are removed, treat the surface with one of the following sanitizing agents, allowing the appropriate contact time before rinsing. If surfaces are clean and dry, wet surfaces thoroughly and allow for the appropriate contact time listed. If the sanitizer has been used to help clean the surface, use fresh sanitizer to rinse off any dirty solution and then allow the required contact time. If treated surfaces are wetted with water, the sanitizing solution will become diluted. Apply enough sanitizer to completely displace the water film and then allow the required contact time. Sanitizing agents may be applied with spray bottles to thoroughly wet the surface. Observe all appropriate safety precautions to prevent contact with eyes or skin when using these solutions.

- 70-90% ethyl or isopropyl alcohol - spray to thoroughly wet the surface and allow to air dry before use
- freshly diluted bleach solution (0.525% sodium hypochlorite, Table 1) for a minimum of 1 minute (due to corrosivity, not advised for steel or other materials damaged by bleach)
- quaternary ammonium disinfectant - use according to manufacturer recommendations, making sure that the label indicates that the product is suitable for your use situation and has activity against *Phytophthora* when used as directed. Solution should be freshly made or tested to ensure target concentration.

Table 1. Dilutions of commonly available bleach products needed to obtain approximately 0.525% sodium hypochlorite concentrations (5000 ppm available chlorine).

Percent sodium hypochlorite in bleach	Parts bleach	Parts water	Diluted bleach percent sodium hypochlorite
5.25%	1	9	0.525%
6.0%	1	10.4	0.526%
8.25%	1	14.6	0.529%
8.3%	1	14.8	0.525%

For example, adding 100 ml of 5.25% bleach to 900 ml of water will make 1000 ml of 0.525% NaOCl solution. If using 8.3% bleach, add 100 ml of bleach to 1480 ml of water to make 1580 ml of 0.525% NaOCl.

B. Clean water specifications

Surface waters, including untreated water from streams or ponds and nursery runoff, can be sources of *Phytophthora* contamination. Only uncontaminated water or water that has been effectively treated to remove or kill *Phytophthora* should be used for rinsing or irrigating plant material.

5.1. Water used for irrigation shall be from treated municipal water supplies or wells and delivered through intact pipes with backflow prevention devices. Tertiary-treated municipal recycled water is acceptable.

- 5.2. If well water is used, wellheads shall be protected from contamination by surface water sources.
- 5.3 Untreated surface waters and recycled nursery runoff shall not be used, and plants shall not be held where potential contamination from such sources is possible via splash, runoff, or inundation.
- 5.4. Irrigation equipment must be kept free of contamination that could be transferred to irrigation water or plants. All hoses, wands, and nozzles, and hand irrigation equipment must either be new or sanitized before use. Drip irrigation and other sprinkler parts should be new or sanitized. Hose ends, wands, or nozzles that become contaminated with soil or mud during use should be cleaned and sanitized before being used further.

Guidelines for Minimizing *Phytophthora* Contamination at Midpeninsula Regional Open Space District Preserves

The goal of these guidelines is to minimize the contamination of Midpeninsula Regional Open Space District (MROSD) preserves with *Phytophthora*, a soil pathogen that kills plants. Once a site is contaminated, this soil pathogen can spread farther into wildland areas and can be difficult to eradicate. Prevention is the lowest cost and easiest method to manage contamination.

The best way to prevent the spread of this disease is to not move soil from one location to another by cleaning tools, equipment, and footwear.

Part of the District's mission is to protect and restore the natural environment. Within the last few years, planted restoration sites have unintentionally exposed preserves to soil pathogens brought in by nursery plants that were later found to be contaminated. Testing of former restoration sites on District preserves is now underway to determine which sites are contaminated and the necessary remedial actions.

Who should use these guidelines?

These guidelines are intended for use by field staff and Natural Resource (NR) staff who pose the highest chance of spreading soil *Phytophthora* via equipment and footwear. Several methods are provided on how and when to decontaminate tools and equipment depending on the site conditions (contaminated versus clean site) and staff activities (planting, other). Guidelines for contractors, consultants, volunteers and preserve visitors are under development. Consult NR staff (Amanda Mills, amills@openspace.org or x558, or Coty Sifuentes-Winter, csifuentes@openspace.org or x560) on which guidelines are best for your project.

When to use these guidelines?

Use these guidelines for any activity that contacts soil, water or plants on a known *Phytophthora*-contaminated site, on a formerly planted site, on a site with rare plants, or when preparing or planting a new restoration site.

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1. Overview

Remember to **Arrive Clean and Leave Clean**. The best way to prevent the spread of *Phytophthora* is to leave soil at its original location in the field. Equipment and footwear should be clean and sanitized before entering a site, especially for planting events where extra precautionary steps will be taken. Before leaving a site, especially at contaminated sites, it's crucial to clean and sanitize footwear and equipment.

Definitions:

Clean - remove soil and organic debris from tools and footwear

Sanitize - Use disinfecting agent such as alcohol or chlorine bleach.

Phytosanitary - control of plant pests and diseases especially in agricultural crops

1.1 What is Phytophthora?

- 1.1.1 *Phytophthora* (Fie-tof-thora) is a group of water molds that infect plants. There are many species, mostly notably *P. ramorm* (Sudden Oak Death), *P. infestans* (potato blight/ Irish potato famine) and *P. tentaculata* (nursery root rot).
- 1.1.2 Symptoms are similar to drought, making diagnosis difficult without testing.
- 1.1.3 Symptoms include leaf spots, branch die-back, cankers, trunk bleeding and death of whole plant.
- 1.1.4 Hosts include many native and nursery plants including oaks, bay laurel, madrones, sticky monkeyflower.
- 1.1.5 Brought to California through imported camellia and rhododendron nursery plants.
- 1.1.6 Mainly spreads from contaminated nursery stock, pots and soil. Can spread by foot traffic from contaminated footwear.

1.2 General Steps:

- 1.2.1 **What** - Items to be cleaned: Anything that comes into contact with soil, water or plants. This includes tools (shovels, hand trowels, hori-horis, rakes, tree cages, plant protection tubes etc.), footwear, equipment, wheeled equipment and vehicles.
- 1.2.2 **When** - Prior to the project day, field staff will be notified what items need to be cleaned and by which method. In general, tools and equipment should be cleaned at the field office before bringing them to the field site, and soil should be removed from footwear beforehand and more thoroughly cleaned at the entrance to the field site.
- 1.2.3 **Transportation** - Cleaned equipment should be transported in a truckbed from which all soil has been washed out, or cleaned equipment can be wrapped in a clean tarp before placed in a dirty truck.

1.3 Proper Disinfectants

All recommended disinfectants are considered pesticides. Personal protective equipment required by the State of California for anyone using disinfectants is eye protection with wrap-around and brow protection and 14 mil chemical resistant gloves. You can use smaller mil gloves if handling chemicals for 15 minutes or less.

- 1.3.1 The disinfectants listed in Table 1 are recommended by standard phytosanitary guidelines.
- 1.3.2 Other disinfecting agents or methods, such as Lysol or heat treatments, must be reviewed and approved by NR staff before use.
- 1.3.3 Disinfectants are most effective when surfaces are clean of soil and user follows label instructions.

Disinfecting Agent	Active ingredient	Contact time	Product shelf life	Proper Disposal	Health Risk	Personal Protective Equipment
Granular Chlorine Bleach (Leslies Chlor Brite, EZ Chlor)	Sodium dichloroisocyanurate dihydrate	2 min	Long if undiluted	Neutralizer (Vita-D-Chlor)	High	Eyewear, gloves; do not inhale
Liquid Bleach (Clorox)*	Sodium chloride	2 min	3-5 months	TBD	High	Eyewear, gloves; do not inhale
Rubbing Alcohol	Ethanol or Isopropyl Alcohol	1 min	Long	TBD	Med	Eyewear, gloves; flammable
Quaternary ammonium compounds (Quat 128 or Physan 20)	Dodecyl dimethyl ammonium chloride	10 min	Long if undiluted	TBD	Med	Eyewear, gloves; toxic to fish

Table 1: List of approved disinfecting agents. Always follow chemical label instructions.

*Liquid bleaches are generally not recommended as a disinfectant because they lose potency in storage.

2. Cleaning at the Field Office

Clean equipment, tools and footwear at the field office **before** arriving to the project site. This is the easiest way to prevent soil contamination. For those occasions where equipment and footwear must be cleaned at a field site, see Cleaning at Field Site (page 7).

2.1 Remove Soil from Equipment and Footwear

- 2.1.1 At the field office, scrape, brush, and wash off any soil or organic material. Take care to remove soil trapped in treads or cracks.
- 2.1.2 Pathogens can survive inside soil clods even after soaking because disinfectants may not completely penetrate large or clayey masses. Therefore, it is important to remove large clods of soil before soaking or otherwise treating with disinfectants.

2.2 Disinfect Tools With Bleach

Several disinfecting agents are available for treating Phytophthoras (Table 1). When many tools need treatment, use granular chlorine bleach at the field office. Spraying with rubbing alcohol is more appropriate for spot treatment at remote field locations.

NEVER MIX DIFFERENT DISINFECTING AGENTS.

ALWAYS FOLLOW LABEL DIRECTIONS.

FOLLOW REQUIREMENTS FOR PERSONAL PROTECTIVE EQUIPMENT WHEN USING DISINFECTING AGENTS.

List of Equipment for Disinfecting Tools:

- **Disinfectant** – most frequently, we expect to be using granular chlorine bleach such as EZ Chlor or Leslie's Chlor Brite when cleaning multiple tools at the field office. Carefully follow the directions below when using any [?] of the bleach disinfectants.
- **Vita-D-Chlor (chlorine neutralizer)** - This neutralizing product is only required if you used chlorine bleach as a disinfectant.
- **Waterproof container** - A large [minimum size?] plastic trashcan or waterproof pop-up garden trimming container in which to mix the water-based disinfectant and soak the tools.
- **Hard bristled scrub brushes and paint scrapers** - Grill brushes with scraper attachment are handy tools to loosen soil from both flat surfaces and narrow cracks.
- **Personal Protective Equipment** Close-toed shoes, apron or coveralls, protective eyewear, 14 mil chemical resistant gloves (not leather or cloth).
- **Clean water source** - should not be cloudy or with a lot of organic material in it. Pressure washers or nozzles are helpful to remove soil quickly and get into small cracks.

- 2.2.1 Before using the disinfectant, remove soil as described in above section.

- 2.2.2 Fill waterproof container with 10 gallons of water. Use label instructions to add the right amount of disinfecting agent. For granular bleach, use one teaspoon in 10 gallons to get the desired 0.525% dilution.
- 2.2.3 Dunk tools in solution for required soaking time (see Table 1). For granular bleach, this is 2-minutes. Just getting tools wet does not mean they will be disinfected. Think of it as chemical cooking.
- 2.2.4 If you used chlorine bleach as a disinfectant, it needs to be neutralized after soaking. This ‘rinse cycle’ will deactivate the bleach so it does not corrode metal and so that it is safer to dispose of the soak water. Equipment sprayed with alcohol does not require this neutralization step.
- 2.2.5 In addition to tools, remember to disinfect the sanitation kit, gloves, tarps, or other miscellaneous items that have come into contact with soil.
- 2.2.6 Let tools dry. The hose lay is great for drying tarps.

2.3 Disinfect Wheeled Equipment/ Vehicles

Anything with wheels, including wheel barrels, ATV’s, motorized carts that will be used at the field site needs to be cleaned and this is best done at the field office before the project. Vehicles that stay at the staging area do not have to be cleaned and sanitized. However, it is good phytosanitary practice to remove soil from wheels every time you leave a site.

- 2.3.1 Scrub down tires either by hand scrubbing or using a pressure spray wash.
- 2.3.2 Sanitize using disinfecting spray such as bleach (must be made weekly) or rubbing alcohol.

3. Cleaning at Field Site

Remember to **Arrive Clean and Leave Clean**. If equipment was cleaned and treated with a disinfectant at the field office and delivered in a clean truck, then on-site cleaning of equipment will only be required when leaving at the end of a work day. We recommend that everyone be encouraged to thoroughly clean their footwear of soil before arrival at the site, and then footwear be treated with alcohol upon arrival. Volunteers may not always be aware of this recommendation and may arrive with boots that need to be cleaned of foreign soil at the field site. Scraping all soil off equipment and footwear is required before leaving site, and sanitation of all footwear is usually recommended when leaving a site, especially for known contaminated sites. Rubbing alcohol is usually the preferred disinfectant in the field. Bleach products can be used in the field, but it is harder to mix and dispose of them properly in the field. See details below.

3.1 Cleaning at Start of Field Day

Tools:

Portable sanitation kits include the following items in a bin: 2 tarps, boot brush with scraper, 2 spray bottles of 70% isopropyl alcohol, 2 long-handled brushes, 2 paint scrapers, and instructions. On muddy days, also bring a basin and 2 jugs of water.

Alcohol 70% Ethyl alcohol (Ethanol) or 90% Isopropyl alcohol is fine. Called rubbing alcohol at drug stores.

Spray bottle - we take the nozzles from chemical resistant spray bottles and screw them directly into the rubbing alcohol bottle. Sometimes the stem needs to be trimmed. This allows you to have a spray bottle that is properly labeled with rubbing alcohol information and precautions.

- 3.1.1 Any equipment or footwear not cleaned and sanitized at the field office must be cleaned and sanitized before entering the site. Off-site soil should be considered contaminated.
- 3.1.2 Using the items in the portable sanitation kit, set up a staging area where equipment and footwear will be cleaned and sanitized. A paved parking lot or surface near the entrance to the work site is preferred.
- 3.1.3 Lay out 2 tarps, one labeled 'dirty' and one labeled 'clean'.
Remove any off-site soil from footwear and equipment onto the 'dirty' tarp. Try not to use water. If water is used, DO NOT dump potentially contaminated water onto on-site soil. Water can be dumped onto non-permeable pavement such as a road or parking lot in a low traffic area. This will UV-sterilize the dirty water (24 hr daylight cycle) as long as no clumps exist. Potentially contaminated soil in the 'dirty' tarp should be bagged in a trash bag and thrown away. DO NOT dispose of off-site soil at the new site.
- 3.1.4 Use the 'clean' tarp to sanitize soil-free footwear and equipment. Standing on the tarp, spray cleaned footwear and tools with 70% isopropyl alcohol, thoroughly wetting the surface. If the surface of your footwear or tools is already wet, spray extra alcohol to displace the water and allow the alcohol to soak the surface. Spray the footwear from the top down to avoid contamination.
- 3.1.5 Allow alcohol to evaporate (approx. 1 min) before starting work. You can stand on the tarp until your shoes are dry.
- 3.1.6 Footbath Alternative - we are investigating sanitizing mats where sanitizing only requires stepping on the mat. Gemplers.com, sanistride.com, and nelsonjameson.com sell both sponge mats and footbath mats for disinfecting shoes. Either chlorine bleach or non-evaporating disinfectants are used in these footbaths and the solution is changed weekly or as needed. Chemical strips are available to test if disinfectants are still effective. Caution should be taken if footbaths and solutions are transported to avoid spills.
- 3.1.7 Bleach alternative in the field. We are currently recommending that the bleach alternative be used at the field office and alcohol be used in the field. Bleach may be a better alternative in the field under some circumstances (large amounts of tools that must be disinfected in field), but will require special processes for safety and to properly dispose of the chlorine treatment water. Consult with the NR Department to determine best methods under these conditions.

3.2 Cleaning at End of Field Day

Tools:

Portable sanitation kits include the following items in a bin: 2 tarps, boot brush with scraper, 2 spray bottles of 70% isopropyl alcohol, 2 long-handled brushes, 2 paint scrapers, and instructions. On muddy days, also bring a basin & 2 jugs of water.

- 3.2.1 Sanitation of equipment and shoes is important for known or suspected contaminated sites. More leniency can be given for 'clean' sites.
- 3.2.2 Remove all soil and organic material from footwear and equipment. Leave soil onsite. Use the boot scraper, paint scraper and a stiff brush to remove any soil and plant material on both the top and bottom of footwear and from tools including the digging ends and handles. Make sure to clean out crevices. On muddy days, fill the basin with water to assist in rinsing off excess soil once the majority of debris has been removed.
- 3.2.3 Water helps in removing dried clods of soil. This water can be dumped on-site only if the soil originates from on-site.
- 3.2.4 Standing on the 'clean' tarp, spray cleaned footwear and tools with 70% isopropyl alcohol, thoroughly wetting the surface and allowing it to dry (approx. 1 min). If the surface of your footwear or tools is already wet, spray extra alcohol to displace the water and allow the alcohol to soak the surface.
- 3.2.5 Before leaving the site, shake soil off the scrapers, brushes and tarp.
- 3.2.6 At the field office, thoroughly clean the portable sanitation kit by washing out, spraying with alcohol and drying the container and all contents before storage. The portable sanitation kit must be clean before moving to a new site.

4. FAQ

Q. What do we do with left over soil?

A. Depends on the soil. Soil from off-site should be disposed of in a trash bag and thrown away--there's no knowing if off-site soil is contaminated or not. On site soil can be disposed of on-site back where it came from.

Q. What do we do with dirty water?

A. Pouring on pavement or another non-porous surface should disperse the contaminated soil enough to UV (sun) sterilize the water. If using bleach, use neutralizer and the water can be considered clean and safe enough to pour out anywhere. Don't pollute! Other disinfectants need proper disposal that isn't safe for dumping on the ground. Contact Natural Resources Department (Amanda Mills/Coty Sifuentes-Winter) or EH&S for safe disposal procedures.

Q. How do we use the tarps?

A. Two tarps, two purposes. Dirty tarp: use as a containment area to clean off soil clogs, especially offsite soil, for later disposal. Clean tarp: provides users a clean surface to sterilize (with alcohol or other sanitation liquid) shoes and equipment not cleaned at the Field offices.

Q. When will we need to sanitize or use the kits?

A. 1. Contaminated sites (list TBD) 2. Planting events-NR staff lead 3. When NR Staff recommend sanitation. Most of these will be NR staff lead, otherwise a leading crew member will advise on Phytosanitary BMP.

Q. Can we use hot water to sterilize?

A. Hot water can be used only if equipment bathes in 120-125° water for 30 minutes in order to be effective at killing both surface contaminants and internal infections.

Q. What about large equipment and Ranger lead projects?

A. TBD. Field staff will be trained on phytosanitary measures. For field crew lead projects, a crew member should be in charge of facilitating phytosanitary compliance.

Q. Why does this take so much time?

A. It's best to prevent rather than respond to contamination by *Phytophthora*. Once a natural area has been exposed to this soil disease, it can slowly spread and kill other plants. It is very difficult and expensive to kill all the pathogens in the soil of a natural area.

5. Sources

CalPhytos.org. "Guidelines to minimize *Phytophthora* Pathogens in Restoration Nurseries".
Suddenoakdeath.org. http://www.suddenoakdeath.org/wp-content/uploads/2016/04/Restoration.Nsy_.Guidelines.final_.092216.pdf

Kurowki, Chet. "Control Pathogen Spread through use of Disinfectants". Calseed.org.
<http://www.calseed.org/documents/Disinfectants%2004-22-14a.pdf>

Cornell University Institutional Animal Care and Use Committee "Cleaning and sanitizing equipment used in the transport of animals."
<https://ras.research.cornell.edu/care/documents/ACUPs/ACUP532.pdf>

http://agriculture.mo.gov/animals/pdf/animalag_guide4.pdf

6. Future Methods

Let us know how these guidelines worked for your project! We may adjust guidelines based on feedback.

**Midpeninsula Regional Open Space District
Sudden Oak Death Precautions and Acorn Planting Protocol**

1. Sudden Oak Death (SOD) Precautions

- a. Prior to the start of construction work, the Construction Superintendent shall inform construction personnel that they are working in a potential SOD-infested area, the implications of the disease, and the need to prevent further disease spread. Non-English speaking personnel shall be provided the appropriate written or verbal translations.
- b. To the extent practical, avoid locating equipment and material near host plants and trees, especially if showing disease symptoms.
- c. Route equipment away from host plants and trees, especially if showing disease symptoms.
- d. Any cutting or chipping of on-site plant material shall be restricted to the project area and the debris shall remain in the project area.
- e. After completing any cutting or chipping of on-site plant material, ensure that the equipment is free from host debris by first removing any visible plant material that clings to the equipment and follow with the cutting or chipping of non-host material.
- f. Before any equipment or vehicles leave the preserve, the contractor shall inspect the equipment and vehicles for host plant debris (leaves, twigs, and branches). Host plant debris must be removed from equipment and vehicles prior to their departure.
- g. If conditions at the work site are muddy due to dust suppression activities or summer rains, remove or wash off accumulations of soil, mud, and organic debris from shoes, boots, vehicles, and heavy equipment prior to exiting the preserve. If an equipment power wash station is used, its location must first be approved by the District Representative.

2. Acorn Planting Protocols

- a. Prior to planting, the contractor will remove debris within a 2-3 foot diameter of the planting basin and hollow out a planting hole fist deep and wide in loose soil. Place 3 seeds on their side in the hole, cover with soil to grade and firmly pat down. Contractor shall install Tubex Shrubshelters (2.5' height) centered on the planted seeds. Contractor shall insure that each installed Tubex Scrubshelter is in good condition and securely attached to wooden stakes with the bottom edge covered by soil. Contractor shall install a mulch layer or certified weed free straw 3 to 5-inches deep in an area of 3-foot diameter around each tree shelter. Contractor will provide and water each basin with one (1) gallon of water.
- b. After the first Spring, keep only the most vigorous seedling in each basin. If space is an issue, plant trees closer together.
- c. At year 5, thin trees to 2:1 ratio.
- d. At year 10, thin trees to 1:1 ratio.

Midpen will gladly issue a free permit to collect acorns for use from either Coal Creek or Los Trancos Open Space Preserves to a qualified contractor.

2. Clean planting materials

Objective: Start with propagative material that is free from infection or external contamination by *Phytophthora* species as well as other possible pathogens.

Suggested practices:

- 2.1. To avoid introducing *Phytophthora* into seed collection areas, make sure your equipment, vehicle, and footwear are clean. Clean and sanitize your footwear and tools between locations.
- 2.2. Where possible, collect seeds and cuttings as high above the ground as possible, preferably at least 3 ft above the soil surface.
- 2.3. Whenever possible, seed/fruit should not be collected directly from the ground. Seed can be knocked onto clean tarps placed on the ground or collected using seed traps. If seed is otherwise unavailable, exceptions may be considered based on the following criteria: 1). Vegetation is robustly healthy, the site is not known to be and not likely to be contaminated; 2). Seed has recently dropped on dry ground or leaf litter. Seeds that may be contaminated with soil via water splashed from the soil should be appropriately treated before storage or use (see section 9. Sanitizing materials and treatments). Ground-collected seed will be kept separate from other collected material during seed processing and planting and should be prioritized for testing throughout propagation.
- 2.4. Seeds, cuttings, and other plant propagules should not be collected from the vicinity of past restoration plantings or other areas where *Phytophthora* infestations are known, suspected, or likely. In the unusual situations where this is not possible (e.g., for rare populations), seed or tip cuttings may be collected if collected at a distance of 1 m or more above the ground. Material propagated from such sources should be kept segregated from plant material propagated from pathogen-free areas.
- 2.5. Protocols for seed collection from species that are low growing (with height stature less than 1 m above the ground) should minimize the risk of potential *Phytophthora* contamination. In general, seed that matures after the rainy season has ended has a low risk of being contaminated if collected before fall rains begin.
- 2.6. Collect seeds, cuttings, or other propagules only from plants and fruit that appear healthy. Do not collect or store seeds or other propagules with apparent disease symptoms such as decay, atypical discoloration, or fungal fruiting bodies.
- 2.7. If possible, avoid collecting seeds or other propagules during wet or muddy conditions to minimize potential for contaminating propagules or spreading contaminated soil.
- 2.8. Collect propagules with clean hands/gloves and equipment (pruning shears, etc.) and place them in new bags/envelopes and new or clean containers. Sanitize gloves, hands, and tools immediately if they come in contact with soil. Sanitize cutting tools frequently.
- 2.9. Conduct all processing of seeds or cuttings in a clean work area with clean equipment and clean hands or gloves. Discard or sanitize any seed or propagule that is dropped on the ground or comes in contact with contaminated surfaces or materials.

- 2.10. Clean seed as soon as possible after collection to remove any debris before storage or stratification. Inspect stored seeds or other propagules regularly and discard materials that develop symptoms in storage.
- 2.11. Where compatible with seed storage and germination requirements, treat seed using heat or appropriate disinfecting chemicals to eliminate seed-borne pathogens or external contamination. Seed treatment may be omitted for species where it is impractical or the risk of seed-borne or contaminating pathogens is negligible.
- 2.12. Do not bring potentially infected or contaminated plant material into clean production areas of the nursery. Properly collected seed and tip cuttings (described above) will normally be free of *Phytophthora*.
- 2.13. Plant propagules that have been in contact with the soil (divisions, tubers, rhizomes, bulbs, etc.) have an elevated risk of being infected or contaminated with *Phytophthora* or other soilborne pathogens. Plant stock originating from such propagules should be segregated from planting material started from cleaner sources, such as seed or cuttings and from other vegetatively propagated material from different localities. The goal is to avoid introducing pathogens, including pathogens that may be endemic to a given site, to new areas or native plant populations via plants that become infected in the nursery.
- 2.14. Plant propagules from the soil (divisions, tubers, rhizomes, bulbs, etc.) should be thoroughly cleaned to remove soil and inspected. Discard propagules that show evidence of decay. Surface contamination can be removed with treatments such as diluted bleach dips, but surface treatments will not eliminate internal infections. Internal infections can only be eliminated by heat treatments, but not all plant propagules will tolerate temperatures needed to kill *Phytophthora* infections.



September 19, 2022

Emily Foley, Emily.Foley@cityofpaloalto.org
Jodie Gerhardt, Jodie.Gerhardt@cityofpaloalto.org
Planning and Development Services Department
City of Palo Alto

Re: 575 Los Trancos Road Residential Project

Dear Ms. Foley and Ms. Gerhardt,

The Santa Clara Valley Audubon Society (SCVAS) and the Sierra Club Loma Prieta Chapter (SCLPC) are environmental organizations that work to protect natural resources and promote the enjoyment of nature. We appreciate the opportunity to comment on the IS/MND for the 575 Los Trancos Road Residential Project.

Project description

The project site is an undeveloped open space, dominated by oak woodland, riparian woodland, and a meadow of non-native grasses. The proposed project includes the construction of a 7,245-square-foot single family residence, a 734-square-foot attached garage, an 895-square-foot accessory dwelling unit (ADU), a swimming pool, access roads, and amenities in the flat, western portion of a 5.38-acre parcel.

Our concerns

SCVAS and SCLPC only learned of this project after it was recommended for approval by the Planning and Transportation Commission on August 31. After reviewing the IS/MND and the staff report, we conclude that the project has the potential to impose significant, unavoidable and permanent impacts on the environment. In this letter, we provide substantial evidence supporting a fair argument that the project as proposed, will cause significant and unavoidable impacts, especially but not exclusively to biological resources.

Los Trancos Creek is one of the few remaining salmonid streams in the Peninsula and the South Bay. As acknowledged in the Biological Report and the IS/MND, it is designated Critical Habitat for steelhead trout. The creek and its riparian corridor also provide a wildlife connectivity linkage to most of our common and rare wildlife species, including mountain lions. The property is located between important open space areas in Palo Alto (Foothills Park) and Portola Valley (Hawthorns property of Midpeninsula Regional Open Space). Development here has the potential to impact fish and to disrupt movement through a key wildlife riparian ecosystem and wildlife corridor. We maintain that a "fair argument" exists

that the Project will significantly impact the environment (League for Protection of Oakland's Historic Resources v. City of Oakland (1997) 52 Cal. App.4th 896, 904.). A public agency must prepare an EIR whenever substantial evidence supports a fair argument that a proposed project "may have a significant effect on the environment" (Protect Niles v. City of Fremont (2018) 25 Cal.App5th 1129, 1138-1139.). This low threshold for the preparation of an EIR, and a "preference for resolving doubts in favor of environmental review" is met here (Mejia v. City of Los Angeles (2005) 130 Cal.App.4th 322, 332.).

The city has discretion over the project and should require that the project be re-designed at a minimum of 55 feet from the top of the bank of Los Trancos creek (in line with the neighboring home) or a wider setback, ideally 150 feet. If this wider buffer/setback is not feasible, the city must prepare an EIR to fully analyze and mitigate the impacts and to consider alternatives to the proposed size of the project and its location on the parcel. Alternatives for a smaller footprint, or potentially loss of a few trees, are likely to reduce the impacts on the riparian ecosystem of Los Trancos Creek and must be considered. Given California's prolonged drought and regional aridification, a project with no swimming pool should also be considered to allow more space for relocation of the home further from the creek and for saving water.

1. Mapping of the project

The maps that are provided in the IS/MND are not detailed enough for the public to discern the location on the parcel where the development is proposed or how the delineation of 20 feet from top-of-the-bank was determined. Therefore, the public, regulators, and decision makers lack the ability to fully evaluate the project's impacts or to make fully informed decisions.

Please recirculate the CEQA document and provide a map that clearly delineates the project elements, including structures, roads, and amenities, on the property. Please show the 20-foot setback from the top-of-the-bank. Please include Los Trancos Creek and public amenities such as roads and trails, and provide the map as an overlay on a satellite photo of the property. This should help ascertain that the project's slope stability protection area extends to a point "20 feet landward from the top of bank or to a point measured at a ratio of 2:1 (horizontal: vertical) landward from the toe of bank, whichever is greater" (Palo Alto Stream Protection Ordinance).¹

A map of the areas to be excavated (following the recommendations of the Geotechnical Engineering Study) should be provided.

A clear zoning map for this location is needed, to show the designation of this parcel and that of land surrounding it.

2. Biological resources

The Biological resources section of the IS/MND does not adequately describe the species that may be affected by the project. Chapter 14 of the Stanford Community Plan 2018 General Use Permit Biological report provides a better picture of the many species in the San Francisquito/Los Trancos watershed

¹ https://codelibrary.amlegal.com/codes/paloalto/latest/paloalto_ca/0-0-0-80331

(Section 3.1.1).² All the species mentioned in this report, and the mitigation measures proposed to reduce impacts, should be considered comprehensively in a CEQA document for this project.

3. Wider riparian buffers are needed

The San Francisco Bay Regional Water Quality Control Board's "Local Government Riparian Buffers in the San Francisco Bay Area" report³ establishes, "The riparian zone is an ecotone, or transition zone, between aquatic and terrestrial habitats. Because riparian zones contain both aquatic and terrestrial plant and animal species they have unusually high species diversity. Riparian zones are also important migratory corridors. A continuous buffer provides migratory and wildlife corridors, which are of particular value in protecting amphibians and waterfowl populations, as well as fish spawning and nursery areas. According to the U.S. Fish and Wildlife Service, California has lost 90 percent or more of its wetlands, which includes riparian communities. This is despite the fact that according to government biologists, riparian communities in the Western states, such as California, provide habitat for up to 80 percent of western wildlife species."

Clearly, riparian ecosystems and buffers are critically important to animal movement, as well as to maintaining water quality in streams. The science is well established and is the reason why agencies regulate construction near streams, and why many agencies impose significant buffers, especially in open space areas. The San Francisco Bay Regional Water Quality Control Board's "Local Government Riparian Buffers in the San Francisco Bay Area" report states, "Riparian zones perform many ecological functions important to enhancing water quality, water quantity, biodiversity, habitat connectivity, and flood capacity. The stream channel itself conveys runoff, supports aquatic plants and animals, provides groundwater recharge, and supplies water to trees and plants that typically thrive in the riparian zone."

The report cites several studies that show the importance of adequate riparian corridor building setbacks. "Buffer Distances Estimates of effective buffer distances for sediment and nutrient filtration vary, but most of the scientific studies suggest distances between 50 and 100 feet for this purpose (Jones & Stokes 2002). Although any buffer distance from the top of the bank is helpful for maintaining channel stability, a minimum 33-foot riparian buffer is required for contributing to a significant reduction in sediment levels." The "buffer distances in the region vary greatly, and it is likely that many were not chosen based upon specific buffer thresholds designed to satisfy water quality considerations. A scientifically based approach can help quantify buffer-induced benefits to water quality, thereby allowing the Board to more easily quantify TMDL reduction amounts when communicating with the region cities." Reducing total maximum daily loads (TMDL) is critical for salmonid bearing streams including Los Trancos Creek. This is why Santa Clara County and the Santa Clara Habitat Agency, based on extensive research, require a buffer of 150 feet from waterways in locations and situations similar to this project siting. The Santa Clara County General Plan Policy R-RC 37 states, "Lands near creeks, streams, and freshwater marshes shall be considered to be in a protected buffer area consisting of...150 feet from the top bank on both sides where the creek or stream is predominantly in its natural state" to protect creeks and

² https://stgenpln.blob.core.windows.net/document/SU_2018GUP_App_Tab14_Biological.pdf

³ https://www.waterboards.ca.gov/sanfranciscobay/publications_forms/documents/bufferreport1204.pdf

riparian areas from “adverse impacts of adjacent development, including impacts upon habitat, from sedimentation, biochemical, thermal and aesthetic impacts.” To avoid significant unmitigable impacts, Stanford’s Community Plan Policy RC-7, which addresses buffer zones along creeks, contains a cross reference to Santa Clara County General Plan policy R-RC 37.

Palo Alto’s outdated Stream Protection Ordinance requires a minimal setback of 20 feet, which is why the Palo Alto Comprehensive Plan Policy N3.3 Program N3.3.1 seeks to update this ordinance, expressing a desire for a 150-ft buffer in locations west of Foothill Expressway:

Program N3.3.1 Update the Stream Corridor Protection Ordinance to explore 150 feet as the desired stream setback along natural creeks in open space and rural areas west of Foothill Expressway. This 150-foot setback would prohibit the siting of buildings and other structures, impervious surfaces, outdoor activity areas and ornamental landscaped areas within 150 feet of the top of a creek bank. Allow passive or intermittent outdoor activities and pedestrian, equestrian and bicycle pathways along natural creeks where there are adequate setbacks to protect the natural riparian environment. Within the setback area, provide a border of native riparian vegetation at least 30 feet along the creek bank.

The update to the Stream Protection Ordinance should establish: Design recommendations for development or redevelopment of sites within the setback, consistent with basic creek habitat objectives and significant net improvements in the condition of the creek. Conditions under which single-family property and existing development are exempt from the 150-foot setback. Appropriate setbacks and creek conservation measures for undeveloped parcels.

The intent of the Comprehensive Plan is clear. It seeks to create adequate, protective setbacks and design recommendations along creeks west of Foothills Expressway. While a 150-foot setback is cited as appropriate for new development west of Foothill Expressway, the program notes that single-family residential development can be exempt from this larger setback. Although the program states that narrower setbacks can be allowed, it does not state that minimal setbacks of 20 feet is ever appropriate or recommended. We maintain that "can be" is not the same as "shall be" and is not determinative. Instead, "can be" indicates discretion, and a 20-foot setback is inappropriate in this location, and will cause significant, unavoidable and permanent harm to Los Trancos creek and the San Francisquito creek watershed.

Staff proposes that the property is “relatively narrow” (page 6 of the Staff Report, PTC) stating, “the widest part of the house (measured between the creek and the street), the property is approximately 226 ft wide” and “The first 90 feet (approximately) measured from the street property line is dedicated to tree protection. An 150 ft creek setback would render this property undevelopable or result in a need to remove existing mature protected trees.” We do not see 226 feet or even 136 feet (226-90=136) as too narrow to accommodate a home. The City has the discretion and should require a smaller footprint of the development, a change in the design to allow wider setback, or allow the removal of a few trees to safeguard the integrity of the creek’s riparian corridor.

In addition, this property is zoned Streamside Open Space (SOS). Palo Alto's zoning code provides, "This designation is intended to preserve and enhance corridors of riparian vegetation along streams. Hiking, biking and riding trails may be developed in the streamside open space. The corridor will generally vary in width up to 200 feet on either side of the center line of the creek." The Staff Report says, "This designation does not discuss residential use, in the way that the Open Space/Controlled Development (OS/CD designation) designation does. The OS/CD designation allows 1-2 dwelling units per acre."⁴ The SOS designation seems to allow no residential development. The proposed development is not consistent with preserving and enhancing corridors of riparian vegetation along streams as intended by the SOS designation.

Lastly, The Palo Alto Stream Protection ordinance specifies development at, "20 feet landward from the top of bank or to a point measured at a ratio of 2:1 (horizontal: vertical) landward from the toe of bank, whichever is greater". The Geotechnical Engineering Study (Appendix C) states that the house is located "80 feet from Los Trancos creek" and bases its recommendations on that measurement. Is the creek channel or the center line of the creek at a distance of 60 feet away from the top of the bank? If the creek channel is located 60 feet away from the top of the bank, then the setback required by the Palo Alto Stream Protection ordinance is 120 feet.

4. Consultation with NOAA Fisheries and CDFW is needed

4.1. Steelhead and other fish

Los Trancos Creek runs along the project site. Since water is available most of the year, the creek is home to Los Trancos Creek is home to fish such as California roach, Sacramento sucker, threespine stickleback, prickly sculpin and rainbow trout (resident). The creek is designated Critical Habitat for steelhead trout.

"Critical habitat" is defined as the specific areas that are essential to the conservation of a federally listed species, and that may require special management consideration or protection. Critical habitat is determined using the best available scientific information about the physical and biological needs of the species. These needs, which are referred to as "primary constituent elements," include space for individual and population growth and for normal behavior; food, water, light, air, minerals, or other nutritional or physiological needs; cover or shelter; sites for breeding, reproduction, and rearing of offspring; and habitat that is protected from disturbance or is representative of the historical geographic and ecological distribution of a species.

The IS/MND proposed that a 20-foot creek setback suffices to protect the species from disturbance yet state, "implementation of the proposed project may result in direct or indirect impacts to steelhead at all life stages."

The Biological Assessment states, "The results and conclusions presented herein represent our best professional judgment but do not represent determinations of the NMFS and CDFW as these agencies

⁴ <https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/agendas-minutes/planning-and-transportation-commission/2022/ptc-08.31.2022-575-los-trancos.pdf>

have ultimate jurisdiction over the steelhead through administration and enforcement of the FESA and CESA, respectively.”

Palo Alto should require consultation with NMFS and CDFW and ensure that all the requirements for steelhead habitat are not impacted significantly. In addition to direct impacts due to the diminutive buffer of 20 feet, impacts of access roads, parking, and light should be addressed and mitigated. For example, outdoor lighting (especially lighting with correlated color temperature of over 2400 Kelvin), can impact local aquatic insects directly and through the reduction of insects and food availability to the fish.⁵ Components from tire dust can kill salmon fry.⁶

4.2. Mountain Lion

The mountain lion has recently been designated as a state candidate for listing under the threatened and endangered species list.⁷ The Central Coast North population of mountain lions contains the project area. Connectivity is crucial for expanding genetic diversity in this population, and a great amount of effort is invested in restoring movement corridors for this species. Creek corridors are important for migration in this species, especially as migration routes are threatened by development and climate change.⁸ Studies of nocturnal patterns of movement suggest mountain lions tend to avoid areas with human disturbance including residential developments that introduce noise and activities as well as light at night.

4.3. The San Francisco dusky-footed woodrat

This species is endemic to the San Francisco Bay area and is listed as a Species of Special Concern in California. The proposed mitigation – dismantling and translocation of middens – has not been shown to be effective at protecting the woodrats.⁹ There is no evidence that woodrats use dismantled relocated middens and the survival of translocated woodrats is unknown. Please review and propose effective mitigation measures. Please use the mitigations offered in the Stanford Community Plan.

5. The Palo Alto Comprehensive Plan

The project is inconsistent with the Palo Alto Comprehensive Plan. As discussed above, the diminutive setback requirements of the project do not provide sufficient protection to Los Trancos Creek, and, thus, the project is inconsistent with:

- Goal N-3: Conservation of both natural and channelized creeks and riparian areas as open space amenities, natural habitat areas and elements of community design.

⁵ <https://besjournals.onlinelibrary.wiley.com/doi/full/10.1002/2688-8319.12053>

⁶ <https://www.science.org/content/article/common-tire-chemical-implicated-mysterious-deaths-risk-salmon>

⁷ <https://wildlife.ca.gov/Conservation/Mammals/Mountain-Lion#562331240-are-mountains-lions-listed-as-a-threatened-or-endangered-species>

⁸ <https://www.washington.edu/news/2019/02/12/assessing-riverside-corridors-the-escape-routes-for-animals-under-climate-change-in-the-northwest/>

⁹ http://wildlifeprofessional.org/western/tws_abstract_detail.php?abstractID=2424&k=l/a/NHKIFi8qQ

- Policy N-3.4: Recognize that riparian corridors are valued environmental resources whose integrity provides vital habitat for fish, birds, plants and other wildlife, and carefully monitor and preserve these corridors.
- Policy N-3.1: All creeks are valuable resources for natural habitats, connectivity, community design, and flood control, and need different conservation and enhancement strategies. Recognize the different characteristics along creeks in Palo Alto, including natural creek segments in the city's open space and rural areas, primarily west of Foothill Expressway; creek segments in developed areas that retain some natural characteristics; and creek segments that have been channelized. Pursue opportunities to enhance riparian setbacks along urban and rural creeks as properties are improved or redeveloped.

In addition, it is likely to have a significant, unavoidable impact on wildlife movement.

- Policy N-1.5: Preserve and protect the Bay, marshlands, salt ponds, sloughs, creeks, and other natural water or wetland areas as open space, functioning habitats, and elements of a larger, interconnected wildlife corridor, consistent with the Baylands Master Plan, as periodically amended, which is incorporated here by reference
- Policy N-1.6: Preserve and protect the foothills and hillside areas, recognizing their unique value as natural ecosystems and interconnected wildlife corridors.

The project is located in an area that is important to wildlife connectivity between open spaces areas, including Palo Alto's Foothills Park and the Midpeninsula Regional Open Space District Hawthorns Open Space. Los Trancos Creek, its tributaries and its function in the San Francisquito creek watershed, require special attention to wildlife connectivity. The IS/MND does not discuss, analyze or substantiate its finding of no significant impact.

Due to the diminutive setback from Los Trancos Creek, we believe that the introduction of human activity during the day and lighting (including outdoor lighting) at night have the potential to interfere substantially with the movement of every native resident and migratory fish and wildlife species that occur in the region, and potentially impede the use of native fish and bat nursery sites. The 20-foot setback also means that outdoor lighting cannot achieve the ambition of Program N3.3.3: For all creeks, update the Stream Corridor Protection Ordinance to minimize impacts on wildlife by *"Requiring careful design of lighting surrounding natural riparian corridors to maximize the distance between nighttime lighting and riparian corridors and direct lighting away from the riparian corridor."* A wider setback should help achieve this goal.

6. Bird friendly design

Bird populations are declining in North America.¹⁰ While there are multiple drivers to this decline, collision with glass is considered one of the primary causes of migratory bird mortality. In North

¹⁰ <https://www.science.org/content/article/three-billion-north-american-birds-have-vanished-1970-%20surveys-show>

America, it is estimated that hundreds of millions of birds die each year as a result of striking glass walls, doors and windows.¹¹ This is a cumulative, significant impact. Bird collisions with glazed surfaces are especially critical in riparian corridors, and many jurisdictions have regulations in place to reduce and mitigate this hazard within 300-ft of riparian corridors and/or open space.¹²

The American Bird Conservancy (ABC) website is a great resource to learn about the devastating impacts of bird collisions and to find solutions to incorporate into architectural designs. Recently, ABC updated their website with new recommendations for Bird Friendly Building Design¹³ and a clarifying document that establishes what qualifies as Bird Friendly Glass. ABC provides primary elements of bird safe building design. These elements are especially critical near habitat areas such as water bodies and open space.

- Minimize use of glass
- Placing glass behind screening
- Using glass with inherent properties that reduce collisions, such as fritting.

In addition, ABC provides a Products and Solutions Database¹⁴ to evaluate bird safety glazing treatments.

Palo Alto requires bird friendly design for commercial buildings, but not for homes. Bird collisions, however, occur primarily (99%) at homes and low rise buildings.¹⁵ The proposed project is likely to contribute to cumulative impact on birds and should be required to apply bird safety measures.

7. Fire risks

The house is located in a fire-prone area. Most wildfires are caused by human activities.¹⁶ Combined with climate change and housing growth in the wildland-urban interface, fires have become larger and more destructive. We believe that analysis provided in the IS/MND is insufficient, and additional additional analysis and mitigations are needed to ensure that the environment is safe during construction and habitation of the proposed residence.

Insurance Commissioner of California Ricardo Lara's report last year¹⁷ called for policies that would stop construction in hazardous areas. Insurers are dropping policies in wildfire areas¹⁸ shifting the burden to

¹¹ <https://academic.oup.com/condor/article/116/1/8/5153098> and <https://bioone.org/journals/the-condor/volume-116/issue-1/CONDOR-13-090.1/Birdbuilding-collisions-in-the-United-States--Estimates-of-annual/10.1650/CONDOR-13-090.1.full>

¹² <https://www.cupertino.org/our-city/departments/community-development/planning/non-residential-mixed-use-development/bird-safe-and-dark-sky>

¹³ <https://abcbirds.org/glass-collisions/model-ordinance/> and <https://abcbirds.org/glass-collisions/resources/>

¹⁴ <https://abcbirds.org/glass-collisions/products-database/>

¹⁵ https://www.researchgate.net/publication/259562592_Bird-building_collisions_in_the_United_States_Estimates_of_annual_mortality_and_species_vulnerability

¹⁶ <https://www.colorado.edu/asmagazine/2020/09/22/humans-ignite-almost-every-wildfire-threatens-homes>

¹⁷ <http://www.insurance.ca.gov/01-consumers/180-climate-change/upload/Draft-Climate-Insurance-Recommendations.pdf>

¹⁸ <https://www.insurancejournal.com/news/west/2020/12/04/592788.htm>

taxpayers via the state through court orders.¹⁹ New housing built in the path of wildfires increases liability for the state. The City should evaluate the concern that new residences in this area will increase the risk of wildfire in the Palo Alto foothills area.

According to the IS/MND, the nearest Very High Fire Hazard Severity Zone (VHFHSZ) is located approximately 1 mile northwest of the project site near Portola Valley (Cal Fire 2022). This is not a significant distance away from the hazard severity zone given wind driven fires in California²⁰ and in the western United States, where climate change has doubled the amount of land damaged by wildfires between 1985 and 2015.²¹ NASA's report, "The Effects of Climate Change," states, "The potential future effects of global climate change include more frequent wildfires, longer periods of drought in some regions, and an increase in the duration and intensity of tropical storms." Indeed, it is expected that the amount of properties burned in CA will grow according to a study by the First Street Foundation when "about 40% of the state have at least "moderate" risk of burning in a wildfire some time in the next 30 years".²²

Thank you for granting us an extension for commenting, and please do not hesitate to contact us if you have questions.

Respectfully,

Shani Kleinhaus, Ph.D.
Environmental Advocate
Santa Clara Valley Audubon Society

Gladwyn D'Souza
Conservation Committee Chair
Sierra Club Loma Prieta Chapter

¹⁹ <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/california-s-insurer-of-last-resort-faces-fire-coverage-challenges-after-ruling-65646785>

²⁰ <https://firesafemarin.org/prepare-yourself/red-flag-warnings/diablo-winds/>

²¹ <https://climate.nasa.gov/effects/>

²² <https://www.sacbee.com/news/california/fires/article261495002.html>

From

Steve Henry
805 Los Trancos Rd
Palo Alto, CA 94028

To

Emily Foley, AICP
Planner City of Palo Alto Development and Planning Services
Emily.foley@cityofpaloalto.org

Date

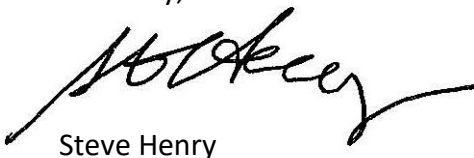
August 25, 2022

RE

Proposed new home 575 Los Trancos Rd Palo alto

John and Dee Ann Suppes have met with me regarding the design of their proposed new home adjacent to us. We reviewed there plans and feel the home will blend in well to environment and landscape. They also took care to provide additional screening separating our homes. We support their new home project and welcome them to the neighborhood.

Sincerely,

A handwritten signature in black ink, appearing to read "SHenry", with a long horizontal flourish extending to the right.

Steve Henry