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Via Email and US Mail

These are the comments of the Alameda Creek Alliance regarding the Draft Environmental Impact Report ("DEIR") for the proposed Alameda Creek Bridge Replacement Project ("Project"). Attached are expert comments from: Dr. Shawn Smallwood regarding impacts to special-status species; from Matt Deitch and Gordon Becker of the Center for Ecosystem Management and Restoration regarding impacts to hydrology, geomorphology and biological resources; and from Vinnie Bacon regarding transportation impacts.

Purpose and Need for the Project

The DEIR (p. 3) states that the objective of the proposed Project is to correct most deficiencies associated with the existing facility and improve traffic safety of the Alameda Creek Bridge for all transportation modes. The DEIR lists the bridge deficiencies as: poor sight distances; low design speeds; bridge railings that do not offer the structural integrity of modern railing; bridge railings that do not provide the capability to redirect vehicles back into the roadway in the event of a collision; lack of width for bicycles to share the roadway; and lack of width to allow for maneuvers to avoid collisions. The DEIR states that "of the above deficiencies, the most crucial are the obsolete railing and lack of shoulders on the Alameda Creek Bridge."

The DEIR states that "based on recommendations of a Federal Highway Administration (FHWA)'s Road Safety Analysis in 2012, the Alameda Creek Bridge was identified as a key safety improvement in the Niles Canyon corridor." The referenced study, entitled *Final Quantitative Road Safety Analysis Study Report SR 84 – Niles Canyon Road Corridor (Value Management Strategies 2012)*, incorporated a Road Safety Assessment conducted by the FWHA in 2012. The FHWA study had the following objectives: "establish corridor safety need; identify countermeasures that address the safety need; investigate the safety benefit associated with each countermeasure; establish the impacts that the countermeasures will have on the Canyon environment."

The FHWA identified four accident hot-spots on SR 84 within Niles Canyon in need of safety improvement with a higher priority than the Alameda Creek Bridge Replacement Project. The

FWHA report listed, in order of priority, those spot locations identified in their Road Safety Review most in need of safety improvement:
1. Rosewarnes Underpass and its approaches (includes passing zone to east)
2. Low-speed curve in the vicinity of “The Spot”
3. Palomares Road Intersection/Farwell Underpass and their approaches (includes vicinity of church access)
4. Main Street and Pleasanton-Sunol Road Intersections
5. Alameda Creek Bridge

The FHWA report noted the existing conditions of the approaches to the bridge: “The existing western bridge approach alignment has a 76.2-meter radius curve, which provides for a design speed of 51 kph (32 mph). The existing eastern bridge approach alignment has a 91.4-meter radius curve, which provides for a design speed of 55 kph (35 mph).” The FHWA report endorsed wider turn radii for both the eastern and western approaches: “New bridge approaches of 175-meter radii are proposed for the project, thereby increasing the design speed to 70 kph (43 mph).” The FHWA report also noted that a lower than “standard” design speed is allowed under "Exceptions to Mandatory Design Standards" and “was approved” by FHWA for such a project. Likewise, the Caltrans Highway Design Manual (Caltrans 2014) notes that “It is *preferable* that the design speed for any section of highway be a constant value. However, during the detailed design phase of a project, situations may arise in which engineering, economic, *environmental*, or other considerations make it impractical to provide the minimum elements for other design standards (e.g., curve radius, stopping sight distance, etc.) established by the design speed.” (Emphasis added)

The FHWA report stated that a project to replace and upgrade the bridge, and upgrade the approach curves would not only increases sight distance and design speed, but would actually increase motorist speed. The FHWA report noted the following disadvantages to such a project: “Requires a new footprint for the realigned roadway; Potential impacts to endangered species; Impacts Alameda Creek Bridge during construction and permanently; Environmental impact to Alameda Creek; Potential loss of riparian habitat.”

Significantly, the FHWA review of collision locations indicated an increased collision frequency at the west end of the Alameda Creek Bridge. The FHWA report also noted that simply removing the curb on the Alameda Creek Bridge would result in a “significant reduction in collision severity.” The FHWA report recommended some short-term measures at the Alameda Creek Bridge that would not cause any environmental impacts and would not require environmental review, that would reduce collisions at the bridge by 8%: “Install active warning system to alert motorists to bikes on roadway (AN-2); Install friction treatment to pavements at low-speed curves and in icy areas (C-1); Install speed feedback sign and longitudinal pavement markings at low-speed curves; narrow lane widths to 11 feet and reapportion to shoulder (SPMA-2&3).”

This raises questions, including:

1) Why is Caltrans pursuing the proposed Alameda Creek Bridge project before the Rosewarnes Underpass, Low-speed curve, Palomares Road Intersection/Farwell Underpass, or Main Street and Pleasanton-Sunol Road Intersections?

2) Is Caltrans improperly segmenting the bridge replacement from the whole of the project to improve SR84 safety in the Niles Canyon corridor in circulating a DEIR solely for the bridge replacement project?

3) How does the proposed increased design speed conflict with the bridge project's objective?

4) Why is Caltrans ignoring the FHWA report recommendations for short-term measures which could meet the project's objectives and reduce collision frequency below state averages, while avoiding the overbuilt bridge approaches that all current Project alternatives include?

5) Why does the EIR not disclose that exceptions to "mandated" design speeds on state highways can be and are used in special circumstances, such as in the narrow, constrained confines of SR 84 in Niles Canyon, according to the FHWA report and the Caltrans Highway Design Manual?

Piecemeal Approach to CEQA Analysis of Niles Canyon Corridor Projects

Caltrans has failed to evaluate the whole of the Niles Canyon corridor project. It is impermissibly segmenting the traffic safety deficiencies associated with the Alameda Creek Bridge from Caltrans' other planned safety projects in the Niles Canyon corridor - the Niles Canyon Safety Improvements Project, Niles Canyon Short Term Improvements Project, and Arroyo de la Laguna Bridge Project.

CEQA forbids 'piecemeal' review of the significant environmental impacts of a project. Environmental considerations must not be submerged by chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have greater consequences. A project under CEQA is "the whole of the action" which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. An EIR must include an analysis of the environmental effects of other actions if (1) they are a reasonably foreseeable consequence of the initial project; and (2) the future action will be significant in that it will likely change the scope of the initial project or its environmental effects. In *Laurel Heights Improvement Assn. v. Regents of University of California* ((1988) 47 Cal.3d 376, 396), officials had publicly announced their intention to use a whole building, but improperly piecemealed the project by only doing an EIR for a move into part of the building that was available yet excluding review of the use of the remaining area after a tenant's lease expired. The Supreme Court held that "the future expansion and general type of future use is reasonably foreseeable" and required analysis in the EIR.

There is improper project segmentation in this case because the Alameda Creek Bridge project is the first step toward future roadway construction by Caltrans throughout the Niles Canyon corridor. There is improper project segmentation because the Alameda Creek Bridge, Niles Canyon Safety Improvements Project, Niles Canyon Short Term Improvements Project, and the Arroyo de la Laguna Bridge Project are all by the same project proponent, for the same purpose, in the same canyon corridor, and can not be implemented independently. There is improper project segmentation because the bridge project practically presumes completion of the Niles Canyon Safety Improvements Project, the Niles Canyon Short Term Improvements Project, and the Arroyo de la Laguna Bridge Project.

The FHWA considered the entire Niles Canyon road corridor in its report entitled *Final Quantitative Road Safety Analysis Study Report SR 84 – Niles Canyon Road Corridor (Value*

Management Strategies 2012). So too, Caltrans cannot now segment the Alameda Creek bridge from the other components of its Niles Canyon corridor safety project.

CEQA must be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language. An EIR's purpose is to provide the public with detailed information about the effect which a proposed project is likely to have on the environment. That purpose can best be served by circulation of an EIR that considers the whole of the Caltrans safety project in the Niles Canyon corridor.

Failure to Accurately Describe Existing Conditions

The FHWA report notes that "The three original Niles Canyon projects, programmed and subsequently developed by Caltrans, were based on corridor safety needs identified in the early 2000s. These safety needs were identified by the Two-Lane and Three-Lane Safety Monitoring Program, a program that tracks the rates of head-on collisions." Since that time frame some conditions have changed. For example, the FHWA report notes that "traffic volumes are down by approximately 20% from the peak in 2005" and that "a centerline rumble strip (2-foot soft barrier) has been installed to reduce head-on collisions." The DEIR does not accurately describe these changed conditions. The DEIR for the Project does not make it clear whether Caltrans has considered reduced traffic volumes or analyzed the safety benefits and reduction in collisions from the 2007 project that installed centerline rumble strips on SR 84 throughout Niles Canyon.

Failure to Accurately Describe the FHWA Report

The DEIR fails to include important information from the FHWA report, including:

(1) That a lower than "standard" design speed is allowed under "Exceptions to Mandatory Design Standards" and "was approved" by FHWA for such a project;

(2) That simply removing the curb on the existing Alameda Creek Bridge would result in a "significant reduction in collision severity"; and

(3) That collisions at the bridge could be reduced by 8% while avoiding any environmental impacts, simply by implementing the following 4 measures:

- Install active warning system to alert motorists to bikes on roadway (AN-2);
- Install friction treatment to pavements at low-speed curves and in icy areas (C-1);
- Install speed feedback sign and longitudinal pavement markings at low-speed curves;
- Narrow lane widths to 11 feet and reapportion to shoulder (SPMA-2&3).

Lack of Meaningful Alternatives Analysis

The requirement to identify and discuss alternatives to the project arises from California's stated policy that state agencies, such as Caltrans, should not approve projects - as proposed - if there are feasible alternatives available which would substantially lessen a project's significant environmental effects. (Pub. Res. Code §21002.)

An EIR should explain how the project alternatives were selected for analysis. It should also briefly identify alternatives rejected as infeasible and explain why they were rejected. (14 CCR 15126.6(c).)

An EIR must focus on alternatives that would avoid or substantially lessen a project's significant effects, "even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." (*Mira Mar Mobile Cmty. v. City of Oceanside* (2004) 119 Cal. App. 4th 477, 487, citing CEQA Guideline 15126.6, subd. (a) & (b); see also *Habitat & Watershed Caretakers v. City of Santa Cruz* (2013) 213 Cal. App. 4th 1277, 1283.) Thus, alternatives must be able to implement most project objectives, but they need not be able to implement all of them.

Alternatives presented in an EIR must also be potentially feasible. (14 CCR 15126.6(a).) Among the factors taken into account when addressing alternative feasibility are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). (14 CCR 15126.6(f).) "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors. (Pub. Res. Code § 21061.1.)

The CEQA Guidelines instruct that comments by the public "are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects." (14 CCR 15204.)

The Project DEIR fails to provide, evaluate or analyze meaningful alternatives which could meet the Project need and purpose without severe environmental impacts. The four alternatives analyzed in the Project DEIR all have essentially the same bridge and road footprint and geometry, with differing treatments for the east and west approaches. All would have similarly severe impacts on riparian trees, endangered species habitat, and the hydrology and habitat value of Alameda Creek.

The Alameda Creek Alliance suggested during scoping meetings for the Project and formally commented during scoping for the Project that Caltrans should include and evaluate less environmentally damaging alternatives in the EIR for the bridge replacement:

1. The DEIR should consider an alternative that replaces and upgrades the bridge, while maintaining similar road geometry to existing conditions.

2. The DEIR should consider an alternative that maintains the existing road geometry for the eastern approach to the bridge, where the most significant environmental impacts would occur under the Project variants proposed in the DEIR, while improving the turn radius for the western approach to the bridge. Caltrans considered, but rejected (DEIR, page 24) an alternative to "correct" the western alignment approach and replace the bridge railings. This alternative corrected four of the six identified safety deficiencies, but did not meet the project objectives of providing shoulders for vehicles to maneuver and avoid collisions on the bridge or providing width for bicycles to share the roadway. Those two deficiencies were not addressed because Caltrans omitted from the alternative the possibility of correcting the western alignment approach and providing a replacement bridge with standard shoulders, which would meet most or all of the project objectives.

3. The DEIR should consider an alternative with a design speed of 35 mph. A design speed of 35 mph would avoid engineering road changes that would increase actual driving speed through the project reach. Such an alternative would better address road

safety by slowing traffic on the approaches to the bridge. The DEIR fails to explain or evaluate why such an alternative would not be feasible.

4. Instead of adding road shoulders uniformly throughout the length of the project area, intermittent sections of roadway with standard road shoulders could be provided through the project area, in locations where minimal tree cutting and earth moving would be required. This would significantly improve available road shoulders for safety purposes without significant environmental impacts.

Alone or in combination, these alternatives would have significantly less environmental impacts than the four Project variants proposed in the DEIR. These alternatives would still allow upgrading the bridge railings and adding bicycle-safe shoulders on the bridge. Each of these project alternatives would meet the stated Project objective, as outlined in the DEIR, section 1.2.1 Project Objectives: "The objectives of this project are to correct *most* deficiencies associated with the existing facility and improve traffic safety of the Alameda Creek Bridge for all transportation modes." (Emphasis added)

The DEIR (pages 48-49) claims that "The Caltrans Highway Design Manual recommends that the design speed for any section of roadway be a constant value for safe and efficient operation (Caltrans, 2014b). This promotes safety by reducing opportunities for inattentive drivers to fail to slow down in response to more restrictive roadway conditions."

However, the Caltrans Highway Design Manual (Caltrans 2014, page 100-1, topic *Highway Design Speed*) actually states that:

> It is *preferable* that the design speed for any section of highway be a constant value. However, during the detailed design phase of a project, situations may arise in which engineering, economic, *environmental*, or other considerations make it impractical to provide the minimum elements for other design standards (e.g., curve radius, stopping sight distance, etc.) established by the design speed. (Emphasis added)

Caltrans has not adequately explained in the Project DEIR why the design speed of the bridge could not be 35 mph, since Caltrans and the FHWA have already approved a variance for the project to design the bridge and approaches for less than 45 mph.

In the DEIR, Caltrans provided four variants of the same project and presented them as alternatives. The DEIR also contains a non-viable straw-man "alternative" that was considered and discarded, yet this "alternative" would not meet the Project purpose and need. Under the DEIR section "Alternatives Considered but Eliminated from Further Discussion," Caltrans claims that:

> The alternative analysis process initially considered a broad range of alternatives to fulfill the project objectives. These included alternatives and options suggested by the public and other interested parties during the project's scoping process. Ultimately, the following alternatives were evaluated and eliminated from further consideration based on feasibility, costs, environmental and engineering considerations, and failure to meet the project objectives and purpose of the project:
>
> *Correct the western alignment approach and replace bridge railing*

> Reason for rejection: An alternative that corrects the sharp eastbound and westbound curve approaches and replaces the bridge railing was rejected from further analysis. This alternative does not address a key safety element of providing shoulders for vehicles to maneuver and avoid collisions on the bridge. In addition, this alternative does not provide width for bicycles to share the roadway. Full shoulders are important safety features that allow vehicles to take corrective action to avoid collisions, and provide room for disabled vehicles. Piecemeal improvements that do not fully address the project's objectives and purpose cannot be supported as the aging and functionally obsolete structure would otherwise remain as-is. The safety benefits of a new bridge on a new alignment far outweigh the minimally reduced environmental impacts of piecemeal improvement alternatives. This alternative corrects only four of the six deficiencies associated with the existing facility: poor sight distances; low design speeds, bridge railing that does not offer the structural integrity of modern railing, and bridge railing that does not provide the capability to redirect vehicles back into the roadway in the event of a collision.

Yet, Caltrans could have evaluated an alternative with a lower design speed, thereby reducing the need for cut-and-fill and tree cutting, while still replacing and upgrading the bridge and providing wider shoulders on the new bridge for bicycle and motorist safety. This would address the identified deficiencies of: bridge railing that does not offer the structural integrity of modern railing, bridge railing that does not provide the capability to redirect vehicles back into the roadway in the event of a collision, lack of width for bicycles to share the roadway, and lack of width to allow for maneuvers to avoid collisions. It could potentially still adequately address the poor sight distances on the western and eastern approaches.

The DEIR does not adequately explain why a lower design speed is necessarily a deficiency. A 35 mph design speed for the bridge and its approaches, combined with the FHWA-recommended short-term measures (such as lights, rumble strips, bicycle warning system, friction treatment, pavement markings and feedback signs) could slow motorist approach speeds and still accomplish most or all of the other project objectives, without the large turn radii for the bridge approaches, which would result in the most significant environmental impacts to riparian trees and Alameda Creek.

The DEIR should consider traffic calming measures for this proposed project. The DEIR identifies potential traffic calming measures (slowing vehicle speeds down in dangerous areas) that may mitigate some safety issues within the Niles Canyon Corridor, and commits to implementing some limited traffic calming measures in other future projects in Niles Canyon in general. Yet the Project fails to consider any traffic calming measures at the Alameda Creek Bridge or its approaches. The DEIR references the "installation of a two-foot soft median barrier (suitable for a rumble strip)" as an "effective countermeasure to prevent head-on collisions and opposite direction sideswipes, also referred to as crossover or cross-centerline crashes (U.S. Federal Highway Administration, 2011)," but the DEIR does not commit to actually installing such a rumble strip on the bridge or its approaches as part of the Project.

The DEIR references two other Caltrans projects planned for the Niles Canyon corridor that contain traffic calming measures that will "help to keep vehicular speed within the existing posted speed limits by implementing measures that intend to reduce motorist speed." These include the "application of approximately 58 sharrows or pavement markings to warn motor vehicles that bicyclists have a right to occupy the whole travel lane, the installation of optical speed bars designed to cause motorists to reduce speed, and the installation of median rumble

strips at several locations," as part of the Niles Canyon Short Term Improvements Project; and "installation of vehicle speed feedback signs throughout various locations in the Niles Canyon corridor, and the installation of two dynamic active warning systems at the Silver Springs Undercrossing and the Palomares Intersection" and "a segment of curve correction at the curve located east of the Alameda Creek Bridge and the addition of curve warning signs," as part of the Niles Canyon Safety Improvements Project. None of these measures are specifically considered for the Alameda Creek Bridge or its approaches.

Promised Mitigation for Significant Impacts Is Inadequate

The DEIR for the Project acknowledges that construction of any of the four Project alternatives would require significant cutting of native trees, which would be a significant environmental impact. The DEIR (page 158) acknowledges that "the removal of trees as result of the Alameda Creek Bridge Replacement Project could have a potentially significant impact to natural communities."

The DEIR also notes the cumulative number of trees that will be cut in Niles Canyon adjacent to SR 84 and Alameda Creek as the result of past, current and planned Caltrans projects. In 2011, Caltrans removed 150 native trees on SR-84 between post miles 12.1 to 13.3 in preparation for the now-defunct "Route 84 Safety Improvement Project." The DEIR for the Alameda Creek Bridge Replacement Project states that Caltrans will impact between 284 to 414 trees. The DEIR states that the planned Caltrans Niles Safety Improvements Project is expected to impact 100 trees. The DEIR states that Caltrans' Arroyo de la Laguna Bridge Project will impact an unknown number of trees. The DEIR estimates a total of 550 to 650 trees will be cut or impacted by all these projects in Niles Canyon, and concludes that the "Alameda Creek Bridge Replacement Project, in combination with past, present, and reasonably foreseeable action, have the potential to contribute to cumulative impacts on trees in the Niles Canyon corridor."

The DEIR states that all Project alternatives will involve a loss of trees, with Alternative 1 resulting in impacts to 415 trees, alternative 2 impacting 324 trees, alternative 3A impacting 353 trees, and alternative 3B impacting 284 trees. The Addendum to the Natural Environment Study for the Project published by Caltrans on 2/27/15 contains the corrected impact data for trees over 4" diameter at breast height (dbh) that would be cut or removed under the various Project alternatives. It appears from the addendum, that under Alternative 1, 395 native trees over 4" dbh would be removed; under Alternative 2, 383 native trees over 4" dbh would be removed; under Alternative 3A, 414 native trees over 4" dbh would be removed; and under Alternative 3B, 284 native trees over 4" dbh would be removed. The DEIR fails to include this significant information. Since the Project EIR is intended to be the disclosure document for all impacts of the project under CEQA, Caltrans must make sure the information in the 2/27/15 addendum (corrected tree cutting data, as well as the detailed info about the species of trees, size of trees and locations of trees to be cut under the various project alternatives) is included in the DEIR.

Caltrans also provided tables as part of the DEIR that calculate the number of large, mature native trees (over 20" dbh) that would be removed under the various Project alternatives (Alameda Creek Bridge Replacement Project – Large Native Trees within Impact Areas). Alternative 1 would remove 29 large mature trees (5 Bays, 10 Sycamores, 13 Live Oaks, and 1 Red Willow); Alternative 2 would remove 19 large mature trees (2 Bays, 6 Sycamores, 10 Live Oaks, and 1 Red Willow); Alternative 3A would remove 24 large mature trees (3 Bays, 8 Sycamores, 12 Live Oaks, and 1 Red Willow); and Alternative 3B would remove 20 large mature trees (1 Bay, 7 Sycamores, and 12 Live Oaks). Large mature native trees such as these provide important wildlife habitat through shading of Alameda Creek, stabilization of stream

banks, and providing cavities for nesting birds. These habitat attributes of large, mature trees cannot be replaced by planting small trees or planting trees elsewhere; it can take many decades or even a century for replacement trees to reach similar sizes and provide similar habitat attributes.

The proposed mitigation in the DEIR for the significant impacts of removing 284-414 native trees (19-29 of them large, mature trees), under the various Project alternatives:

> Caltrans will provide tree replacement on-site at a minimum 1:1 ratio in the existing SR-84 alignment for upland trees. Depending on the Build Alternative selected and the number of upland trees able to be planted on-site, there may be a need for off-site mitigation planting (at a location to be determined). Mitigation for trees removed from the riparian zone will be mitigated at a 3:1 ratio and will be replanted within the Alameda Creek watershed, with as many riparian mitigation trees planted on-site as possible. Depending on the Build Alternative selected and the number of riparian trees able to be planted on-site, there may be a need for off-site mitigation planting. Details for off-site mitigation planting for permit requirements will be determined in coordination with CDFW and permitting requirements.

The DEIR improperly defers formulation of mitigation measures related to the significant impacts from the loss of trees as a result of the project as currently proposed. Formulation of mitigation measures should not be deferred until some future time, but measures may specify performance standards which would mitigate the Project's effects. (Guideline 15126.4(a)(1)(B.) An EIR is inadequate where mitigation efforts largely depend upon management plans that have not yet been formulated, and have not been subject to analysis and review within the EIR. (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 92, citing San Joaquin Raptor II, supra, 149 Cal.App.4th at 670.) "In the First District, an agency violates CEQA by deferring the formulation of mitigation measures without committing to specific performance criteria for judging the efficacy of the future mitigation measures." (*POET, LLC v. California Air Resources Board* (2013) 218 Cal.App.4th 681, 698-99.)

The tree mitigation proposed in the DEIR is similar to the mitigation Caltrans promised in the Negative Declaration and committed to in permits from the Regional Water Quality Control Board and California Department of Fish and Wildlife, for the cutting and removal of nearly 150 native trees along Alameda Creek in Niles Canyon, on SR-84 between post-miles 12.1 to 13.3, in preparation for the now-defunct Niles 1 project. Those 150 native trees were cut in February and March of 2011. Yet Caltrans has acknowledged in the DEIR and at the 2/23/15 scoping meeting for the Project that it has not even begun, let alone completed, mitigation for the tree-cutting during Niles Canyon 1, and that there is no timeline for completion of that mitigation. The DEIR similarly contains no timeline for the proposed mitigation for tree-cutting impacts as part of the current Project. The DEIR provides no details as to the specific areas where the mitigation tree planting will occur, and the anticipated habitat value of the replacement trees, relative to the trees to be cut during the Project, and related Caltrans projects in the canyon. The DEIR acknowledges that the tree-cutting from the terminated Niles 1 project has led to "the decline in the health of the resource" and that this negative impact "still exists as Caltrans has yet to provide mitigation for these trees."

Additionally, Caltrans admitted at the 2/23/15 scoping hearing for the Project that it cannot find suitable nearby mitigation sites that are acceptable to regulatory agencies, nor can it adequately mitigate for the loss of large, mature trees, and the habitat value they provide for native wildlife

by replacing those trees in-kind, i.e. with equivalent large, mature native trees along Alameda Creek.

CEQA requires that agencies not approve projects unless feasible mitigation measures have been adopted to reduce significant impacts. (§§ 21002; 21002.1, subd (b); 21081, subd (b)(3).) "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time taking into account economic, environmental, legal, social, and technological factors. (Guideline 15364.) The DEIR fails failed to properly analyze mitigations for Project impacts by discussing the feasibility of avoiding and minimizing Project construction and operational impacts. (CEQA Guideline 15370.) Caltrans' failure to provide mitigation for significant tree-cutting at an adjacent Niles Canyon project 4 years after the impacts occurred, and admission that the agency cannot find suitable nearby mitigation sites that are acceptable to regulatory agencies indicates that the DEIR's proposed tree replacement mitigation is infeasible for the impacts of cutting 284-414 native trees over 4" dbh, and 19-24 large mature trees over 20" dbh.

Failure to Fully Assess Cumulative Impacts

Safety Cumulative Impacts

The DEIR improperly dismisses an analysis of the cumulative safety and environmental impacts from the Project proposal to remove posted lower-speed advisory signs and increase the design speed of the bridge and approaches, in concert with other Caltrans projects planned for the Niles Canyon corridor. The DEIR merely asserts that "the removal of the lower-speed advisory is not an impact as long as the facility is designed to accommodate the change in posted speed" and that the new Alameda Creek Bridge is "designed to accommodate the 45 mph regulatory speed limit and design features of the new bridge have been incorporated to keep vehicular traffic at the posted speed 45 mph speed limit."

Yet the FHWA report (2012) stated that a project to replace and upgrade the bridge, and upgrade the approach curves would increase motorist speed, regardless of the posted speed limit. The FHWA Road Safety Assessment also reiterated that speeding is one of the major factors contributing to collisions within the Niles Canyon Corridor.

Other research shows that increases in speed (both absolute and relative among vehicles) lead to an increase in crash severity (Renski et al. 1999). Zegger et al. (1981) studied the safety effect of lane and shoulder widths, merging data for about 17,000 crashes in Kentucky. Zegger et al. focused on runoff-road and opposite-direction crashes as being associated with narrow lanes and shoulders. Although they found that with lane widening the rate of ran-off-road and opposite-direction crashes decreased, other types of crashes did not, perhaps due to increased speeds.

Noland (2002) conducted an analysis of how road infrastructure improvements affect traffic-related fatalities and injuries, while controlling for other factors known to affect overall safety. Noland (2002) found that the results of his review "…strongly refute the hypothesis that infrastructure improvements have been effective at reducing total fatalities and injuries. While controlling for other effects it is found that demographic changes in age cohorts, increased seat-belt use, reduced alcohol consumption and increases in medical technology have accounted for a large share of overall reductions in fatalities."

Noland (2002) found that “Conventional traffic engineering would not question the assumption that “safer” and newer roads reduce fatalities. However, this type of approach tends to ignore behavioral reactions to safety improvements that may offset fatality reduction goals. For example, if a two lane road is expanded to four lanes this could potentially reduce the risk of head-on collisions, but may also result in many drivers travelling at higher speeds, potentially leading to no gains in safety.” While Noland (2002) did not evaluate increased shoulder width and Caltrans is not proposing to increase the number of lanes in this Project, the proposed Project will increase the width of the road (by increasing shoulder width), which could have the unintentional impact of increasing the speed at which drivers travel due to their perception that the roadway has been made safer, and in the end, may exacerbate reckless behavior.

Noland (2002) notes: “The underlying behavioral mechanism that could explain the increase in fatalities associated with infrastructure improvements was not examined. However, it seems likely that it is due to possibly two effects. Once an increase in speed levels is enabled, for example, by lane widening or increased capacity, which could increase traffic-related fatalities. The other is that drivers may not recognize risky situations as readily due to a decrease in the difficulty of the driving task.”

The DEIR did not analyze whether the Project “improvements” in concert with other Caltrans projects planned for the Niles Canyon corridor will enable motorists to travel at higher speeds through Niles Canyon, regardless of the posted speed limits, and did not analyze the adverse, potentially significant cumulative safety impacts due to the potential for increased motorist speeds.

The DEIR also fails to analyze another potential cumulative impact: whether the bridge replacement project in concert with other proposed Caltrans road improvement projects in Niles Canyon will create a need for future, additional “safety” and road engineering projects to accommodate increased motorist speeds. The cumulative impact of projects which enable motorists to travel at higher speeds through Niles Canyon is potentially that Caltrans will raise the posted speed limit through the canyon. Increased motorists speeds, regardless of the posted speed limit, could result in setting of a higher speed limit through the canyon, since Caltrans establishes speed limits on Hwy 84 through Niles Canyon using the 85th percentile method.

The DEIR states:

> All Build Alternatives would result in the removal of the existing speed advisory signs that recommend that the existing bridge be driven at 30 mph going eastbound and 35 mph going westbound, as the replacement bridge can be driven safely at the existing 45 mph regulatory speed limit for this section of SR-84.
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> The removal of the lower-speed advisory is not an impact as long as the facility is designed to accommodate the change in posted speed. The new Alameda Creek Bridge is designed to accommodate the 45 mph regulatory speed limit and design features of the new bridge have been incorporated to keep vehicular traffic at the posted speed 45 mph speed limit.
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> One specific feature is the installation of a two-foot soft median barrier (suitable for a rumble strip). Centerline-rumble strips are an effective countermeasure to prevent head-on collisions and opposite direction sideswipes, also referred to as

> crossover or cross-centerline crashes (U.S. Federal Highway Administration, 2011).
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> Additionally, the other two Caltrans projects planned for the Niles Canyon corridor will ultimately help to keep vehicular speed within the existing posted speed limits by implementing measures that intend to reduce motorist speed. The first project, the Niles Canyon Short Term Improvements Project, involves the application of approximately 58 sharrows or pavement markings to warn motor vehicles that bicyclists have a right to occupy the whole travel lane, the installation of optical speed bars designed to cause motorists to reduce speed, and the installation of median rumble strips at several locations.
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> The second project, the Niles Canyon Safety Improvements Project, involves the installation of vehicle speed feedback signs throughout various locations in the Niles Canyon corridor, and the installation of two dynamic active warning systems at the Silver Springs Undercrossing and the Palomares Intersection. At the Silver Springs Undercrossing, the dynamic warning system will signal when traffic, not visible to the approaching motorists, has backed up within the undercrossing. At the Palomares intersection, the dynamic warning system will signal to motorists on SR-84 that vehicles on Palomares are waiting to make a left turn. The Niles Canyon Safety Improvements Project also involves a segment of curve correction at the curve located east of the Alameda Creek Bridge and the addition of curve warning signs. The numbers of motorists driving in excess of posted speeds is anticipated to be reduced by the application of these measures.

The DEIR acknowledges existing roadway features that currently constrain motorist speed on either end of the Project, at the Palomares Road intersection to the west, and at the low-speed curve to the east, and cites planned future Caltrans projects to prevent motorist speeds in excess of 45 mph. It is questionable whether there are engineering fixes that could ever allow vehicle speeds to be 45 mph at these spots, so what is the logic in engineering the roadway to speed traffic up to 45 mph between these constraints in the Project area?

The California Manual on Uniform Traffic Control Devices prescribes the process for setting speed limits. Caltrans sets speed limits for state highways, such as SR 84 through Niles Canyon, in accordance with engineering and traffic surveys, which measure prevailing vehicular speeds and establish the limit at or near the 85th percentile (i.e., the speed that 15% of motorists exceed). Notably, Caltrans can deviate from this method if an engineering and traffic survey shows that other safety-related factors suggest a lower speed limit to be appropriate. These safety-related factors can include accident data, highway, traffic, and roadway conditions not readily apparent to the driver; residential density; and pedestrian and bicyclist safety.

Although the DEIR claims that the posted speed limit in the Project reach and in Niles Canyon is not changing as a result of the Project, the cumulative road “improvements” contemplated throughout the canyon may still result in higher driver speeds, resulting in an upward adjustment of the speed limit, thus triggering a future new round of projects (with attendant severe environmental impacts) to further increase design speed of the road.

The 2012 FHWA report stated that a project to replace and upgrade the bridge, and upgrade the approach curves would not only increases sight distance and design speed, but would actually increase motorist speed. There is plenty of literature documenting the fact that driver

compliance with posted speed limits is poor and that drivers will travel at whatever speeds they feel are reasonable regardless of the posted limit (Harkey et al. 1990, Stuster et al. 1998, Garber 1998, Transportation Research Board 1998, Winter 2008). Changing the road geometry, adding wide shoulders, increasing sight distances and upgrading the approaches to the bridge will encourage and allow drivers to increase their speed though the Project reach. Similar changes are proposed at multiple locations throughout the canyon as part of the Caltrans Niles Canyon Safety Improvements Project. These cumulative changes could result in increased motorist speeds, raising the 85th percentile speed during traffic surveys, resulting in an upwards adjustment of the posted speed limit. At that point, additional numerous curves and sections of SR 84 in Niles Canyon will not be engineered to allow motorists to drive the posted speed limit, and under Caltrans' logic, will require further safety improvement projects to engineer the roadway sections to accommodate increased motorist speeds.

Alameda Whipsnake Cumulative Impacts

The DEIR avoids any analysis of the cumulative impacts to the Alameda Whipsnake, instead impermissibly focusing on cumulative impacts to AWS Critical Habitat Unit 3. CEQA requires that this EIR consider the cumulative impacts to the species as well as its habitat.

In addition, the DEIR briefly discusses four nearby projects with impacts to Alameda whipsnake habitat and/or designated critical habitat:

1) The *Arroyo de la Laguna Bridge Project*, which is currently in the early planning phase. The DEIR notes that the project will involve impacts to Alameda whipsnake habitat but these impacts and the mitigation associated with the project have not yet been determined.

2) The upcoming Caltrans *Niles Canyon Safety Improvements Project*, with a preliminary estimate of impacts to 13.5 acres of Alameda whipsnake habitat (both permanent and temporary impacts). According to preliminary estimates, the project will impact approximately one acre of Alameda whipsnake Critical Habitat Unit 3.

3) The *I-680 HOV Lanes Project*, with impacts to 18.98 acres of Alameda whipsnake habitat (11.7 acres of permanent impacts and 7.3 acres of temporary impacts).

4) The *Freeway Performance Initiative on I-680 Project*, with estimated impacts to 9.9 acres of Alameda whipsnake habitat (3.1 acres of permanent impacts and 6.8 acres of temporary impacts).

The DEIR fails to discuss seven other completed or anticipated projects nearby with impacts to Alameda whipsnake habitat:

1) The abandoned Caltrans *Niles Canyon I Safety Project*, which cut 150 trees in 2011 along Alameda Creek in lower Niles Canyon, with un-quantified impacts to Alameda whipsnake dispersal habitat.

2) The completed SFPUC *Sunol Valley Water Treatment Plant Expansion*, which had impacts of temporary and permanent loss of 27.3 acres of suitable habitat for Alameda whipsnake; as well as 0.19 acre of designated critical habitat for Alameda whipsnake (SFPUC 2009a).

3) The completed SFPUC *New Irvington Tunnel*, with temporary impacts to 71.1 acres and permanent impacts to 2.8 acres of whipsnake habitat (SFPUC 2009b).

4) The completed SFPUC *San Antonio Backup Pipeline*, with permanent impacts to 0.5 acre of whipsnake habitat (SFPD 2012a).

5) The completed SFPUC *Alameda Siphon No. 4 Project*, with permanent loss of 1.3 acres of whipsnake habitat and a temporary loss of 21.5 acres of foraging and dispersal habitat for whipsnake (USFWS Biological Opinion).

6) The proposed SFPUC *Upper Alameda Creek Filter Gallery Project*. This is a future project with unknown, but likely impacts on Alameda whipsnake habitat. Construction is planned for September 2014 through May 2016. http://sfwater.org/bids/projectDetail.aspx?prj_id=126

7) The completed SFPUC *Geary Road Bridge Project*, with permanent impacts to .06 acres and temporary impacts to 3.51 acres of whipsnake habitat (SFPD 2012b).

Failure to Adequately Present and Evaluate Traffic Safety Data

In discussing the purpose and need for the Project, the DEIR summarizes accident analysis based on 1999 to 2012 traffic data. The DEIR states this data shows:

> A total of 12 collisions, six of which involved injuries, on the Alameda Creek Bridge. The collisions on the bridge included three cross-into-opposite-lane collisions, three head-on collisions, one instance of hitting the bridge approach guard railing, one instance of hitting the side of the bridge railing, and four hit-object collisions.
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> The actual fatality and injury rate of 1.13 within the bridge limits is more than double the state average rate (0.56) for similar facilities. In addition, the total accident rate (2.06) is significantly higher than the state average rate (1.31) for similar highway facilities. FHWA's Road Safety Analysis indicated that the number of accident rates at the Alameda Creek Bridge and eastern and western approaches are higher than they would be with a facility that meets current design standards.

The accident data provided is from 1999-2012. The DEIR notes that a Caltrans project that installed centerline rumble strips was completed in October 2007 between Old Niles Canyon Road and Pleasanton-Sunol Road. A FHWA team of safety experts, independent of Caltrans, evaluated accident data in Niles Canyon since the 2007 center-line rumble strip was installed. The FHWA concluded that the 2007 installation of the center-line rumble strip dramatically reduced collisions in the canyon. Yet the DEIR completely fails to analyze whether the 2007 project reduced collision rates in the Project area, at the bridge and its approaches. The data is simply presented as "1999 to 2012 traffic data." The EIR needs to break the accident data into pre- and post-installation of the rumble strips, and determine if that project has reduced the crash and fatality and injury rates in the project area to below state averages.

Improper Environmental Baseline for Analyzing Traffic Impacts

The DEIR uses an improper baseline for analyzing traffic impacts as it fails to compare the proposed project to existing conditions or provide a rationale for why a comparison to existing conditions would have no informational value.

The DEIR reveals that current signage requires that motorists drive across the existing bridge at 30 mph going eastbound and 35 mph going westbound (DEIR, p. 50). The proposed Project will have a speed limit of 45 mph (DEIR, p. 51). The DEIR states that the proposed project will have "no impact to traffic safety" and "no traffic and transportation impacts" as all of the Build Alternatives are designed to "maintain" the 45 mph regulatory speed limit of this section of SR-84.

In so reasoning, this DEIR violates well-established CEQA principles that a project must be compared to the existing environment. By comparing with a "hypothetical allowable" condition of 45 mph, rather than the existing setting of 30 mph eastbound and 35 mph westbound, the DEIR creates an "illusory" comparison of the project's impacts. The holding in *Environmental Planning & Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350 applies equally here:

> The comparisons utilized in the EIRs can only mislead the public as to the reality of the impacts and subvert full consideration of the actual environmental impacts which would result. There are no extensive, detailed evaluations of the impacts of the proposed plans on the environment in its current state. Accordingly, the EIRs fail as informative documents.

(*Id.* at 358-59)

In *Communities for a Better Environment v. South Coast Air Quality Management Dist*. (2010) 48 Cal.4th 310, the Supreme Court held that the air pollution effects of a project to expand a petroleum refinery were to be measured against the existing emission levels rather than against the levels that would have existed had all the refinery's boilers operated simultaneously at their maximum permitted capacities. (*Id*. at pp. 322–327) So here, this DEIR compares the project to speed limits that would exist if the current signage were not present, defining the proposed project as "maintaining 45 mph."

Nor does this DEIR's baseline comport with the Supreme Court's decision in *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439. By exclusively employing an analytic baseline of future conditions of 45 mph to assess traffic impacts, the DEIR fails to disclose the project's effects on *existing* environmental conditions in the project area. Further, the DEIR does not attempt to show that an existing conditions baseline can be abandoned because it would be clearly misleading or without informational value to EIR users. (*Id*. at 457) "The public and decision makers are entitled to the most accurate information on project impacts practically possible, and the choice of a baseline must reflect that goal." (*Id*. at 455)

Incomplete Analysis of Impacts

The DEIR does not discuss the impacts to the creek banks, active channel and floodplain of Alameda Creek in the Project area, due to the cut-and-fill and construction of retaining walls for the eastern approach to the bridge. The EIR needs a description of existing conditions, and what impacts, if any, will occur to the creek bank on the eastern approach under all alternatives. The EIR should show photos of existing conditions, looking from the center of Alameda Creek toward the left bank (going downstream) of Alameda Creek through the Project area, and provide simulated views of what the length of this creek bank will look like under the various alternatives.

CEQA requires an EIR to advise the public and responsible agencies if a proposed project will have significant environmental impacts. The DEIR states that "activities during construction could result in injury or death to the California red-legged frog in the construction area during these activities," but doesn't evaluate if project impacts before mitigation will be significant.

Likewise, the DEIR mentions direct and indirect effects to the Alameda whipsnake, including injury and death, but there is no discussion of whether project impacts before mitigation will be significant.

Failure to Properly Analyze Land Use Impacts

A land use impact is potentially significant if the project conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. (DEIR, p. A-7)

The DEIR reveals that none of the current project alternatives are consistent with the East Alameda County Conservation Strategy (EACCS). Specifically, the project is not consistent with EACCS Goal 16 (Increase the Alameda whipsnake population in the designated recovery units in the study area to a level that allows for long-term viability without human intervention) and Objective 16.1 (Avoid and minimize direct impacts on Alameda whipsnake, including avoidance of death of individuals and avoidance of loss of habitat during project construction and indirect impacts that result from post project activities by implementing avoidance measures).

The DEIR fails to disclose that this inconsistency is a significant land use impact. In fact the DEIR claims it is an insignificant impact on the rationale that the project does not compromise the goals and policies of planning. Not compromising the goals and policies of planning is undefined by the DEIR and is not recognized as a CEQA exception to a potentially significant impact. By thwarting disclosure of a significant impact the DEIR does not attempt to formulate any appropriate mitigation measure.

The DEIR fails to explain why changing the land use designation from "Open Space" to "Transportation" for lands purchased from 4 separate agencies (Alameda County, the San Francisco Water Department, the Alameda County Water District, and the San Francisco Public Utilities Commission) would not be a significant impact.

The DEIR fails to disclose if the project will affect the designation of SR-84 through Niles Canyon as a State Scenic Highway and how the project complies with the protection afforded by the State Scenic Highway Program.

The DEIR fails to adequately consider consistency with the East County Area Plan Cultural Resources Policy 137 which requires development to be designed to avoid cultural resources or, if avoidance is determined to be infeasible, to include implement appropriate mitigation measures that offset the impacts. The project proposes to destroy the existing bridge, which is potentially a cultural resource. Yet the DEIR includes no discussion of why avoidance is infeasible. Nor does the DEIR explain why the mitigation measures will offset the impact.

Inadequate Analysis of Cultural Resource Impacts and Mitigations

The Alameda Creek Bridge is a locally recognized historical resource. Destruction will be a significant impact. The DEIR does not discuss how the proposed bridge destruction will comply

with the State Historical Building Code, Public Resources Code 5024.5, and Executive Order W-26-92.

The California State Historical Building Safety Board informed Caltrans of its obligation to comply with the State Historical Building Code. Yet, Caltrans has failed to do so. Bridge destruction is not mandated by the project's objectives.

Failure to Comply with Section 4(f) of the Department of Transportation Act of 1966[1]

Caltrans is also required to comply with Section 4(f) of the Department of Transportation Act of 1966. (49 U.S.C. 303; 23 U.S.C. 138)

Section 4(f) provides that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

Caltrans may approve a transportation project, such as the proposed Alameda Creek Bridge Replacement Project, which requires the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) **only if:**

- there is no prudent and feasible alternative to using that land; **and**

- the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Caltrans has failed to conduct the required analysis and determination.

A 4(f) analysis and determination is required for the proposed Alameda Creek Bridge Replacement Project because – as currently configured – the project will use historic sites, parks and recreation area. Note that "use" under Section 4(f) includes not just physical occupation of such sites, but also "constructive use" where the project will significantly and adversely effect the site. (See *Sierra Club v. Department of Transportation*, 948 F.2d 568, 573 (9th Cir.1991); see also *Laguna Greenbelt, Inc. v. U.S. Dep't of Transp*., 42 F.3d 517, 533 (9th Cir. 1994), as amended on denial of rehearing (Dec. 20, 1994).

The DEIR reveals that, based on the comments of Alameda County that the Alameda Creek Bridge is a local resource potentially eligible for inclusion on the Alameda County Register, Caltrans considers the existing Alameda Creek Bridge to be a historical resource under CEQA and considers its proposed demolition is a significant environmental impact.

In addition the Sunol Aqueduct, a designated historic property, parallels SR-84 within the project limits.

Further, the project proposes to acquire 131,700 square feet of land and permanently change the land use designation from "Open Space" to "Transportation". This includes land from Alameda County (95,000 square feet), the San Francisco Water Department (15,600 square

[1] The draft EIR is stated as solely for CEQA compliance. ACA expects that Caltrans will comply with federal environmental laws at a later date.

feet), the Alameda County Water District (12,000 square feet), and the San Francisco Public Utilities Commission (9,100 square feet). To the extent that any portion of these parcels is parkland or recreational land as defined by the Department of Transportation Act, then Caltrans must also analyze and determine if use or constructive use of such lands by the project violates Section 4(f).

At this point Caltrans has not considered whether (1) there is no prudent and feasible alternative to using that land, and (2) the project includes all possible planning to minimize harm to the park, recreation area, and historic site resulting from the use.

While ACA reserves the right to comment upon such analysis in a re-circulated EIR, at this point it appears clear that the mitigation for the proposed demolition of the bridge is not "all possible planning to minimize harm." The DEIR concludes impacts will be significant even after the EIR's proposed mitigations. In addition, both the Alameda County Parks, Recreation, and Historical Commission and the California State Historical Building Safety Board have informed Caltrans it is obliged to apply the California Historical Building Code, but Caltrans has refused.

Positive Project Elements

The proposed Project contains some environmentally beneficial elements, which should continue to be included in a meaningful Project alternative.

These include the proposed removal of a concrete weir in Alameda Creek which currently serves as a barrier to fish passage, removal of the existing Alameda Creek Bridge's in-stream piers, and removal of invasive Arundo from the Project area. Removal of the concrete weir would allow the stream to take on a more natural morphology and would remove a low flow fish passage barrier. Removal of the existing bridge and building a replacement bridge that would reduce the in-stream footprint of the bridge piers would improve the geomorphology of Alameda Creek. Removal of the invasive Arundo would improve habitat for native fish and amphibian species.

Literature Cited

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