



## CITIZENS COMMITTEE TO COMPLETE THE REFUGE

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Sent via e-mail to [nilescanyonprojects@dot.ca.gov](mailto:nilescanyonprojects@dot.ca.gov) on 12/2/16

Attn: Elizabeth White  
Caltrans District 4  
Office of Environmental Analysis  
111 Grand Avenue, MS 8B  
Oakland, CA 94612

### **Re: Comments on Niles Canyon Safety Improvements Project Draft Environmental Impact Report**

Dear Ms. White,

This responds to the Draft Environmental Impact Report/Environmental Assessment (DEIR), regarding the Caltrans proposed Niles Canyon Safety Improvements Project, Alameda County, California, dated October 2016. The Citizens Committee to Complete the Refuge (CCCR) has been following and commenting on Caltrans' proposals for road improvements through Niles Canyon since 2010. We appreciate that there have been efforts to reduce the scope of work proposed in the scenic, biologically and culturally rich Niles Canyon corridor, and we support the replacement of the culvert at Stonybrook Creek with a clear span bridge. However, we remain concerned that the public has not been provided adequate information to demonstrate the proposed project will meet its goal of improving safety, or that less environmentally damaging alternatives are not available.

In addition, the mitigation measures proposed for biological resources are not sufficient to reduce the adverse impacts of the project to a level that is less than significant, and in some instances, mitigation is improperly deferred. The DEIR fails to disclose cumulative impacts to native trees resulting from the Phase 1 tree-cutting, the proposed project and losses that are reasonably foreseeable from the implementation of the Alameda Creek Bridge replacement project. Finally, Caltrans still has not implemented compensatory mitigation for cutting 143-150 trees in 2010 as part of the terminated Phase 1 project.

#### **Project Purpose:**

The DEIR fails to provide information necessary for the public and decision-makers to evaluate the project need, to determine whether the proposed project is the least environmentally damaging practicable alternative, and to determine whether the proposed avoidance, minimization and mitigation measures are adequate.

We had asked in our scoping comments that the DEIR "provide a map indicating where accidents have occurred within the canyon, *the conditions at the time of the accident, the cause of the accident if known.*"[emphasis added] The purpose of the request was to enable the public to understand the relationship between the causal factors of collisions and the remedies proposed by Caltrans. The DEIR provides a map (Figure 2) that depicts the approximate locations of collisions and the approximate frequency with which collisions have occurred within the vicinity of proposed projects. Tables 1 and 2

provide information regarding the primary collision factors and types of collisions and the numbers of each but does not link this information to location. This information is insufficient to allow the public to connect the dots between the primary collision factors and safety improvements proposed at each of the project locations, and in fact, the information as presented is misleading.

As an example, Table 3 of the DEIR indicates that there have been 5 injury accidents in the locations where the rock drapery system and dynamic rockfall fence are proposed. The actual accident rate in the vicinity of the proposed rock drapery system is in bold font because it is above the statewide average. One would expect from the tables and the photos provided and the safety improvements proposed that the primary collision factor would be rocks that had fallen into the roadway. Appendix F, however, states "...none of the accidents were coded as "Loose Material" or "Obstruction in Road." Appendix F states that two of the accidents involved overturning, one of the accidents was a head-on accident, and in one accident the guardrail was struck. At the proposed location of the dynamic rock fall fence, the "vehicle travelling in the southbound direction, not turning properly while negotiating the curve" hit the steep slope on the right shoulder of the road. The primary collision factor for these five accidents was not disclosed, but the descriptions provided suggest the primary factor may have been driving at an unsafe speed for the conditions.

The real reason the rock drapery system and dynamic rock fall fence are being proposed is that "Caltrans Maintenance have concerns about rock falls at this [these] location[s], which is both a maintenance headache and a potential roadway hazard." This may or may not be a valid reason to propose the projects, but that was not the problem implied or rationale provided for the projects in the DEIR. The DEIR leaves unanswered (and unaddressed) the underlying cause of the five accidents identified. The DEIR fails to demonstrate how the proposed work would reduce future accidents at this location. If speeding or driving at a speed unsafe for the conditions was the primary factor for the five accidents the proposed projects will not alleviate the safety problem at these locations.

The DEIR refers to Traffic Accident Surveillance and Analysis System (TASAS) accident data available through September 30, 2014 (available as of August 26, 2016), but this data is not provided in the DEIR nor is it available on the Caltrans District 4 website. We are assuming portions of the August 2016 TASAS data are included in a memorandum dated July 23, 2016 from Emily Tang to Jack Siau, "Collision Analysis," is included as Appendix F of the DEIR.

The memorandum discusses the low speed curve improvement location. The memorandum mentions that nine accidents occurred in the 0.3 miles of the low speed curve study location after the installation of the rumble strip in 2007. The purpose of a center line rumble strip is to target "distracted, drowsy, or otherwise inattentive drivers who unintentionally stray over the center line."<sup>1</sup> That has not been identified as the primary collision factor at this location. An "improper turn" was identified as the primary collision factor for four of the collisions at the low speed curve, speeding for three collisions and driving under the influence (DUI) for one collision. While the memorandum identifies "improper turn" as a collision factor, the description suggests that drivers entered the turn at too high a speed, as they were "unable to negotiate the sharp curve." Correcting the superelevation of the low speed curve may help some drivers successfully recover from driving at inappropriate speeds, but as with the rockfall areas

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<sup>1</sup> U.S. Department of Transportation Federal Highway Administration. Rumble Strips and Rumble Stripes. [http://safety.fhwa.dot.gov/roadway\\_dept/pavement/rumble\\_strips/t504040/](http://safety.fhwa.dot.gov/roadway_dept/pavement/rumble_strips/t504040/) Accessed 11/30/16

above, does not address the underlying problem of attempting to enter the curve at an inappropriate speed or to attempting to sustain an inappropriate speed through the curve.

The DEIR states passive traffic calming measures such as optical bars will be installed and High Friction Surface Treatment will be applied to the road surface to increase friction and reduce skidding at the location of the low speed curve as part of the short term project improvements. We suggest these short term measures be installed and their efficacy at reducing traffic collisions be monitored before proposed construction activities occur (rock cutting, vegetation removal, retaining walls, superelevation work). If the short term project improvements are effective in altering driving behavior so drivers navigate the turn at safer speeds, it may be possible to avoid the negative impacts to aesthetic and biological resources associated with rock cutting, construction of approximately 300 linear feet of retaining wall, and removal of vegetation. The community has continually raised concerns that increasing shoulder width, etc. may in fact be counterproductive and result in drivers traveling at increased and unsafe speeds. Charlton<sup>2</sup> focused on the issue of driver attention while entering and traveling through horizontal curves. He observed:

Although increases in lane and shoulder width have sometimes been recommended as a means of making curves more forgiving (Zegeer et al., 1990) *this can also have the effect of increasing drivers' speeds, thus negating any overall safety gains* (Lewis-Evans and Charlton, 2006). [emphasis added]

He also noted:

Drivers' perceptions of speed and curvature appear to work at both a conscious (explicit) and unconscious (implicit) level. For this reason curve warnings and delineation treatments that highlight the sharpness of the curve ahead or increase a drivers' momentary sense of their apparent speed appear to offer promise in getting drivers to enter curves at a lower speed. Delineation treatments may also assist drivers with selecting and maintaining appropriate lane position while travelling through the curve.

In simulator tests he found:

It was envisaged that the herringbones pavement marking would narrow the effective lane width and reduce drivers' speeds while providing them with some guidance on the optimal path through the curve. Contrary to expectations these pavement markings did not produce any appreciable reductions in drivers' speeds. Their effects on drivers' lane positions, however, were profound and it is possible that potential speed reductions due to lane narrowing were offset by indicating an optimal path through the curve (which could be traversed at higher speeds). *When combined with chevron and repeater arrow signs, the herringbones did achieve both a reliable reduction in speed as well as improved lane positions.*

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<sup>2</sup> Charlton, Samuel G. The role of attention in horizontal curves: A comparison of advance warning, delineation, and road marking treatments. *Accident Analysis and Prevention* 39 (2007) 873-885

Bullough et al<sup>3</sup> stated:

A primary reason for rollover and run-off-the-road crashes at these locations is excessive speed when driving through a curve. Therefore, roadway sign treatments that result in reduced approach speeds could be beneficial when these types of crashes are at issue. The previous chapter of the present report describes some approaches that have been made at influencing driver speed along curves.

In an experiment to test experimental versus conventional use of chevron signs to delineate a curve, they found:

Based on the findings of the present human factors experiment, in combination with the literature reviewed in the previous chapter of this report and the previous study by Skinner and Bullough (2009), it does appear that modifying the use of chevrons to employ progressively-increasing sizes throughout a curve, and adjusting the spacing of them to provide an appearance consistent with a smaller radius curve (about two-thirds the radius of the original curve) can increase perceptions of sharpness by drivers, and can result in greater speed reductions.

The 2012 Road Safety Assessment for Niles Canyon states:

The most recent engineering speed survey measured free flow speed of 47 mph, which is very consistent with the posted speed of 45 mph. *However, the plethora of speed-related crashes suggests that more targeted measures may be needed.* [emphasis added]

...One concern expressed by a great many stakeholders at the May 7 Kickoff meeting is that any degree of pavement widening (shoulder widening in particular) will unquestionably result in higher speeds. These speeds are, in turn, perceived to be less safe.

While it's true that long stretches of "open road" may allow drivers to feel comfortable traveling at relatively high speeds, it is unlikely that short, intermittent stretches of widened pavement would significantly influence drivers to increase speed. In fact, many locations in the corridor already are graded wide enough to allow for stabilizing or paving the shoulder without increasing the actual width.

Even if speed were to increase slightly, the safety benefits that *would likely accrue* from providing more clear recovery area and improved stopping distance and additional speed enforcement areas *might help allay some of these concerns.*

We continue to urge Caltrans to employ methodology that encourages safer driving speeds, rather than merely altering the roadway to accommodate higher speeds and hope for the best. Caltrans has failed to demonstrate that the proposed projects will address "safety" issues, and has failed to demonstrate the proposed projects will not exacerbate existing safety issues.

### **Impacts to Trees:**

We are pleased there is no longer any mention of removing the eucalyptus trees at The Spot, which was of great concern to the community. For purposes of clarification, please explain what trees are

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<sup>3</sup> Bullough, John D., Nicholas P. Skinner, Jennifer A. Brons, Mark S. Rea. August 2012. Final Report Using Lighting and Visual Information to Alter Driver Behavior. Research Study No. C-06-36. Conducted for the New York State Department of Transportation.

proposed for removal on Figure 3: Project Elements, Map 5 of 13, of the Natural Environment Study, between markers 25 and 28.

### **Buffers for Nesting Birds:**

We support Natural Communities – 10 regarding the work window for nesting birds, as well as Natural Communities – 11 regarding pre-construction surveys for nesting birds. However, we urge Caltrans to modify Natural Communities-12 regarding the non-disturbance buffers for nesting birds to require larger buffers. A review of literature of the effects of noise pollution on birds by Ortega <sup>4</sup> suggests reduced nest success for some species of birds near gas well compressors, or trails that support off-road vehicle use. We propose Caltrans adopt 300' buffers for passerines and at minimum 500' buffers for raptors. These buffers were adopted by San Diego Gas & Electric Company as part of their East County Substation Project Nesting Bird Management, Monitoring and Reporting Plan, January 2013.

### **Inappropriate deferral of mitigation for loss of trees:**

The DEIR proposes UPLAND TREES-1 and RIPARIAN TREES-1 as compensatory mitigation for the removal of predominately native upland and riparian trees. The DEIR states upland trees would be replaced on-site at a minimum 1:1 ratio, and that riparian trees would be replaced on-site at a minimum 3:1 ratio. Plantings would occur within two years of completion of the Niles Canyon Safety Improvements Project construction and would be monitored for three years following planting, with mortality rates not to exceed 30%. For both upland and riparian tree replacement, the DEIR states that as of September 2016, Caltrans anticipates the need for off-site upland and riparian tree planting.

The proposed mitigation measures for the potential loss of 310 trees, 50 of which have a DBH of 20 or greater, adds insult to injury. The suggestion that the compensatory mitigation proposed could occur two years after construction of the safety improvement projects is completed means there would be no mechanism short of legal action, to ensure the mitigation would actually occur.

For over five years, Caltrans has promised it would mitigate the loss of 143 predominately mature native trees that were cut prior to the termination of the Phase 1 project. When questioned about the status of replacement plantings, Caltrans repeatedly stated that it could not mitigate within the Niles Canyon corridor, that it was difficult to suitable off-site mitigation sites, and that they were working with resource and regulatory agencies to find an acceptable resolution. This raises the substantive concern that if it has taken over five years to come up with a mitigation proposal for the loss of 143 trees, the mitigation for an additional 310 trees is not likely to occur within a reasonable period of time, if at all. The California Environmental Quality Act (CEQA) Guidelines require that *feasible* mitigation measures for significant environmental effects be set forth in an EIR for consideration by decision-makers and the public prior to certification of the EIR and approval of a project (CEQA Guidelines §§ 15126 (e) and 15126.4). "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. (CEQA Guidelines § 15364). [emphasis added] The proposed mitigation measures for the loss of trees fail to comply with the requirements of CEQA.

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<sup>4</sup> Ortega, Catherine P. 2012. Chapter 2. Effects of Noise Pollution on Birds: A Brief Review of Our Knowledge. Ornithological Monographs, Volume (20120), No. 74, 6-22

**Proposed mitigation for impacts to California red-legged frog and Alameda whipsnake habitat:**

The DEIR appears to propose the purchase of mitigation bank credits for the identical acreages of compensatory mitigation for both the California red-legged frog and the Alameda whipsnake. Is Caltrans proposing to purchase just 9.63 acres of mitigation credit for the two species combined, or 9.63 acres of mitigation credit for each species? If the former, please provide an explanation of why this should be considered adequate mitigation.

**Cumulative impacts:**

The DEIR fails to discuss the cumulative impacts of past, present and reasonably foreseeable projects within the Niles Canyon corridor on trees and riparian natural communities. The Natural Environment Study states in reference to the list of projects provided under the cumulative impacts analysis:

These projects all went through, or are required to undergo, an environmental review to identify, account for, and mitigate potential adverse impacts. All trees removed as part of the projects in the resource study area will be replaced at a minimum of 1:1 ratio and typically at a higher ratio dependent on the resource agency requirements. The specific tree removal area and tree replacement area may not be the same or within the resource study area for all of the projects due to various reasons including limited tree planting space within the canyon, safety issues with planting trees close to SR 84, and limitations due to property ownership. The trees being impacted by the proposed project will be mitigated through replanting on-site to the maximum extent possible and off-site if additional planting areas are required. *This project in addition to all other projects analyzed for cumulative impacts have or will meet resource agency requirements for tree mitigation. Caltrans does not anticipate any cumulative impacts to trees as a result of the proposed project.* [emphasis added]

The Natural Environment Study, acknowledges that the impacts of cutting 143 trees in 2010 have yet to be mitigated, and states that the Alameda Creek Bridge replacement might impact up to 444 trees. According to the Tree Inventory completed in August 2016, there are 1,201 trees within the Biological Study Area (BSA), including trees that were inventoried for the Alameda Creek Bridge Replacement project. It is unclear whether trees that were cut in 2010, but have since resprouted were included in the inventory. However, considering only the maximum of 310 trees that may be removed or impacted through implementation of the Niles Canyon Safety Improvement Project (70 trees lost through permanent impacts and 240 trees in the temporary impact zone) and the maximum of 444 trees that may be impacted by the Alameda Creek Bridge Replacement project, a total of 63% of the trees within the BSA may be impacted by these two projects alone. That is certainly a significant number of trees and given the uncertainty of the feasibility of Caltrans' proposed mitigation measures, i.e. UPLAND TREES-1 and RIPARIAN TREES-1, there will likely be a significant and adverse cumulative impact resulting from just these two projects.

Furthermore, the DEIR acknowledges the Build Alternative will “*result in impacts to the Niles Canyon Riparian Corridor that would remain significant after mitigation measures are incorporated.*” [emphasis added] The DEIR states:

**Biological Resources:**

Riparian Natural Communities

*Impact: Implementation of the Build Alternative would have a significant impact on the Niles Canyon Riparian Corridor.*

The Niles Canyon Safety Improvements Project would result in temporary and permanent impacts to riparian communities at spot locations along the Niles Canyon Corridor. The lack of development and disturbance within the Niles Canyon Riparian Corridor over the past 100 years preserved Alameda Creek as an intact and contiguous riparian corridor. There are few hardscape areas that can be removed without impacts to other uses in Niles Canyon. *Opportunities and areas to restore or mitigate onsite within the Niles Canyon Corridor are limited or not practicable. As a result, project impacts to riparian natural communities are considered a significant impact that cannot be mitigated below a level of significance.* Refer to Section 2.3.1 for more detailed analysis. [emphasis added]

Although impacts to riparian communities are considered significant and cannot be mitigated within the Niles Canyon Riparian Corridor, Caltrans would continue to discuss and coordinate with CDFW and RWQCB about riparian mitigation opportunities in Alameda Creek tributaries and the Alameda Creek watershed.

Therefore, the proposed project will have significant adverse individual and cumulative impacts to riparian natural communities and trees.

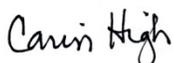
**Failure to mitigate for loss of trees in Niles Phase 1:**

We want to reiterate that after over five years, Caltrans is finally proposing mitigation for the loss of 143 predominately mature, native trees. The proposed mitigation will improve fish passage in Stonybrook Creek but does not replace the functions and values of the lost trees for other species, notably birds, bats, amphibians, mammals and insects. It is also our understanding that there were other components, besides just the Stonybrook Creek culvert replacement, that were to be implemented. What is the status of removal of invasive species such as pampas grass, replanting of lost sycamores, and management of resprouted trees (sycamores)?

**Conclusion:**

We thank you for the opportunity to provide comments. Based upon our review of the DEIR, appendices, and the Natural Environment Study, we have serious concerns that the project does not address the underlying problem of speeding and inattentive or reckless driving. As has been stated by the community repeatedly, the actions proposed may exacerbate rather than alleviate any potential traffic safety concerns, by increasing driving speeds through the canyon. The project will have significant adverse impacts to the scenic and biological resources within the Niles Canyon corridor that have the potential to be avoided through further implementation of traffic calming techniques that target correction of inappropriate driving behaviors (excluding DUIs). Rather than implement the Build Alternative, we encourage Caltrans to first implement and monitor the efficacy of these techniques. We would appreciate notification of any future opportunities for public comment or the release of any additional environment review documents. We would also appreciate acknowledgment of receipt of our comments.

Sincerely,



Carin High  
CCCR Co-Chair