Friends of Knowland Park
http://www.savekknowland.org
Ruth E. Malone, Co-Chair
Friends of Knowland Park
10700 Lochard Street
Oakland, CA 94605

March 14, 2011

Darin Ranelletti, Planner III
City of Oakland
Community and Economic Development Agency
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, California, 94612
dranelletti@oaklandnet.com

Dear Mr. Ranellletti,

We appreciate the opportunity to provide written comments on the Mitigated Negative Declaration/Addendum prepared by the city for the proposed Amendment to the Oakland Zoo Master Plan.

Friends of Knowland Park (FOKP) is a community organization whose mission is to preserve and protect Knowland Park and educate the public about its natural flora, fauna, and geology. Our group includes members from neighborhoods all over Oakland, but we also have members from other cities of the Bay Area who appreciate what a unique place Knowland Park is. Our activities have included leading park tours, litter cleanup, invasive French Broom removal, and others. We are committed to working toward a Zoo expansion plan design that respects the park as well as the Zoo, and have been actively engaged for the last three years in advocating changes to the new proposed design. Several members of our group were part of the community negotiators that, after 18 months of negotiations with the Zoo, arrived at an agreement on the design for the expansion that was approved in 1998.

Because of this history and our deep familiarity with the park and its features, we are keenly interested in ensuring that the environmental impacts of this major revision of the Approved Zoo Master Plan are fully analyzed before approval. We offer these comments in the spirit of seeking the best outcomes for the city, for the Zoo, and for Knowland Park. These comments are to be considered in addition to those key points summarized in the letter from our legal representatives, Shute, Mihaly & Weinberger.

We, the submitters of this document, respectfully provide it as commentary to the document titled, "Subsequent Mitigated Negative Declaration/Addendum. Draft, Volumes 1 and 2"and dated Febeuary 2011. We greatly appreciate the City's review of our comments. Please feel free to contact us if you have questions regarding our comments.

Sincerely yours,

Ruth Malone
Co-Chair, Friends of Knowland Park
Durant Park Highlands

Stefanie Gändolfi
Associated Residents of Sequoyah Highlands

Jason Webster
Co-Chair, Friends of Knowland Park
Durant Park Highlands

Sandra Marburg
Associated Residents of Sequoyah Highlands

Gabriele Allen
Chabot Park Highlands Association

Karen Putz
South Hills Homeowners Association

Thomas M. DeBoni
Associated Residents of Sequoyah Highlands

Lee Ann Smith
Sequoyah Heights Homeowner Association

Received on Date Time

by

Oakland City Planning Department

cc: Shute, Mihaly and Weinberger, LLP

***Friends of Knowland Park* Comments**

Regarding Subsequent Mitigated Negative Declaration/Addendum

for the Amendment to the Oakland Zoo Master Plan

Table of Contents

A. OVERALL COMMENTS

The city has not recommended a full Environmental Impact Report under the California Environmental Quality Act (CEQA), which would be suggested by Public Resources Code Section 21166. This section states that a new EIR is triggered when "substantial changes are proposed in the project" and/or when "substantial changes occur with respect to the circumstances under which the project is being undertaken." With regard to the Zoo expansion project, each type of change has occurred.

The currently proposed Amended Master Plan requires a full Environmental Impact Report under the California Environmental Quality Act because it represents something very different than the Master Plan proposal approved 13 years ago. As noted in the letter from our legal representatives, CEQA provides that, when the lead agency previously certified a negative declaration, as is the case here, an Addendum is only appropriate where "minor technical changes or additions are necessary." Clearly, the changes to the Master Plan proposal involve far more than "minor technical changes or additions" by any reasonable measure, including vastly expanding and moving the Interpretive Center, and including other non-recreational uses within it; addition of the Veterinary hospital building, a major structure not part of the previously approved Master Plan; reconfiguration of the exhibit spaces, with dramatically different impacts on the character of the remaining parklands; addition of an aerial gondola ride/people moving system, not part of the previously approved Master Plan; addition of an outdoor camping area, not part of the previously approved Master Plan, in an area of sensitive oak woodland; and multiple other changes detailed in these comments.

The currently proposed Amended Master Plan requires a full Environmental Impact Report under the California Environmental Quality Act because of changes in the circumstances under which the project would be undertaken. In the 13 years since the previous approval, the regulatory climate has changed, and the proposed Amended Master Plan project is inconsistent with multiple policy elements of the city's Open Space, Conservation, and Recreation (OSCAR) portion of the city's General Plan, adopted after the 1998 approval. In addition, there are new conditions that have arisen since the previous approval, including the development and spread of Sudden Oak Death, which has killed more than 1 million trees in California and has never been addressed in any project or planning documents.

The currently proposed Amended Master Plan requires a full Environmental Impact Report under the California Environmental Quality Act because it is required under CEQA if information "which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR [or MND] was certified," shows that the project will have impacts missing from the previous MND or that any impacts will be more severe than stated in the previous MND (CEQA Guidelines §15162).

Identification of numerous previously unknown environmental impacts, including state and federal protected animal species and special status plant species that will be directly and indirectly affected by the proposed project, clearly meets CEQA criteria for requiring a full EIR.

Finally, the currently proposed Amended Master Plan requires a full Environmental Impact Report under the California Environmental Quality Act because it is the right thing to do when public resources are being affected by a controversial major development project that will have permanent impacts on a public park. Friends of Knowland Park acknowledges, not without some reluctance, that some expansion of the Zoo into Knowland Park has been previously approved and will eventually happen. However, despite appeals to Planning by other groups to extend the comment period, the public has had only 30 days in which to review more than 1300 pages of materials not available before. This limits the public's ability to adequately assess and provide input on the project's impacts.

Presumably, the same is true for the public's representatives on the Planning Commission. Planning Commissioners will also, under the anticipated agenda for approval of the Amended Master Plan, have less than two days to review these and other public comments and any staff response made to them before being asked to make a decision on approval. The project is big and important enough, and its effects long-lasting enough, that it is worth making sure it is done right and all impacts are fully considered, even more so because the project's focus is on conservation education.

A longer public review and comment period is a requirement for a full EIR under CEQA precisely because that process assures that many eyes review projects with important impacts and participate in efforts to improve development proposals. In addition, a full EIR under CEQA will reassure the public that its representatives are not simply ramming through a new project that, for many Oakland citizens, constitutes a "bait and switch" after community members spent more than 18 months negotiating on a design for the expansion that was approved in 1998, only to find their efforts tossed out the window with this proposed Amended Master Plan.

Given these facts, a reasonable person would conclude that a full EIR under CEQA should be completed before this Amended Master Plan project is approved. Details follow regarding impacts we believe must be analyzed. Friends of Knowland Park notes, however, that these can only be regarded as preliminary comments given the volumes of material and the short time frame.

Comments on MND/A Project Description Section

As noted in the letter from our legal advisers, the Project Description is incomplete and inadequate under CEQA. We make the following further observations on the Project Description:

1) **MND/A fails to adequately explain the details of the proposed California Interpretive Center, why such a massive structure is now required, and its full environmental impact.**

Friends of Knowland Park has many concerns about the proposed Interpretive Center, including its enormous size, visual impact, and use of prime park ridgeline space for offices, which should not under any circumstances be permitted. In this section we briefly mention other comments and questions about the project description as it is summarized in the MND/A. More detailed comments are provided under the appropriate section areas below.

Page 2-16 – An exterior deck off the restaurant would contain approximately 1,140 additional square feet. What will this deck be used for? Additional restaurant space? Has the impact of the noise from this space been accounted for in the noise calculations? It says the Interpretive Center will be used for events that are held currently at the present zoo. Does this include special events like weddings? It will only be open during regular zoo operating hours, but it will also be used for these special events. Please define operating hours.

Given the large auditorium, Snow Building, and other spaces the Zoo now has within its current footprint, we question the need for such an enlarged Interpretive Center to be used for these events. This is a major change from the Approved Master Plan and creates additional environmental impacts not adequately addressed in the MND/A.

2) **MND/A fails to adequately explain the details of the Amphitheater and its environmental impact.**

Page 2-22. The MND/A states that the Amphitheater would be used for "Events currently offered in the Children's Zoo." What does this mean? Do such special events include music of any kind? Will it have audio components? Speakers? Microphones? No examples of events are provided; thus its environmental impacts cannot be adequately assessed. We raise additional important questions about the Amphitheater and its currently proposed status under the Biological Resources section and elsewhere.

3) **Fails to adequately explain the details of the Gondola and its environmental impact.** The biological resource impact of the proposed gondola is not addressed in this document. See additional discussion of this issue, below under Geology, Other Issues and elsewhere.

4) **Fails to adequately explain the details and requirements of the proposed overnight camping area and fully analyze its environmental impact.**

Page 2-22: The proposed "Overnight camping experience" was not part of the Approved 1998 Master Plan. It is stated in a footnote that the Zoo already has camping activities. Why is this additional camping area required? If campers get to the site via the Gondola, does that mean the Gondola will operate longer hours than the zoo's regular operating hours? What are the

quiet hours for the camping experience? Will there be outdoor fire pits? The MND/A states that "most of the camping" would occur on the weekends. If it's just "most," when will the rest of the camping happen? Has the noise from the weekend camping experience been fully accounted for the noise analysis, or only an average? Other important unanswered environmental questions are raised under specific sections, below.

B. SPECIFIC COMMENTS BY SECTION OF MNDA/A

3.1 AESTHETICS

Contrary to the conclusions of the MND/Addendum, Friends of Knowland Park finds that the proposed amended Master Plan buildout clearly results in new significant aesthetic impacts not identified in the 1998 MND and a substantial increase in the severity of previously identified impacts. A Full EIR should be required to address this.

The changed design of the project since 1998 imposes new impacts that are obviously not addressed in the 1998 MND, and are being inadequately addressed, downplayed, or ignored in the MND/Addendum. The 1998 MND, for example, found that the Approved Master Plan would have no impact on scenic vistas or views open to the public, no aesthetic impact related to building height, and a less-than-significant impact related to light and glare. However, the 1998 MND noted that the project would consist of "low-rise, small-scale buildings," as noted on 3.1-2. This is patently not the case with the vastly expanded and reconfigured Amended Master Plan proposal, and the MND/Addendum does not adequately characterize or consider the effects of this project on the remaining parkland open space. The MND/Addendum includes misleading simulations, as discussed below, entirely omits simulations directly comparing the Amended Master Plan proposal with the Approved Master Plan, and leaves out consideration of important aesthetic impacts, including the overall fundamental, permanent change in the character of Knowland Park for park users.

In order to assess the importance and relevance of aesthetic components, it is useful to refer to the Oakland General Plan, specifically the relevant Open Space, Conservation, and Recreation (OSCAR) element objectives and policies. It appears that these policies are being ignored and contradicted despite their mention in this review. OSCAR (POLICY 0S-10.1), for example, calls for protection of the character of existing scenic views in Oakland, with particular attention to "views of the Oakland hills from the flatlands" and " panoramic views from Skyline Boulevard…and other hillside locations." Taking OSCAR and other information into consideration, the following aspects of the MND/Addendum are misleading, inadequate or incomplete.

1) **The report admits that the project would have a significant impact on the environment if it would have a substantial adverse effect on a scenic vista.**

Although the OSCAR policy referenced above refers explicitly to "views," it is mischaracterized here by referring only to "vistas," and noting in a footnote on page 3.1-10 that "A vista is a distant view." This appears intended to suggest that the only views that have aesthetic value are those in the far distance, as opposed to the near and middle distance. To the contrary, the views that are most treasured by park users constitute not only the far-distant background, but the middle and foreground views from the parkland, a point that has been made repeatedly and eloquently in public meetings at the Zoo and in meetings with city planners, but is largely ignored in this report. For this reason, it is stunningly disingenuous to suggest that the project will not have a substantial adverse effect on the scenic view from Knowland Park, itself a "hillside location."

The previous Master Plan proposal, with conditions of approval resulting from 18 months of negotiation with community groups of park users, was planned to have minimal impact on the area over the ridgeline away from the existing Zoo and toward the largest area of remaining parkland. The "Off site breeding area," for example, was envisioned as a quiet, low-impact, non-visitor activity that was, by definition, "off-site" from the California project and was the only reason the fenceline was extended to its current location. The veterinary medical hospital now proposed, an entirely new feature not included in the 1998 approval, has removed the need for this "off-site breeding area." The only other exhibit protruding fully over the ridgeline in the previous plan was a grizzly bear exhibit. (see Fig 2.-2).

Clearly, the previous Master Plan proposal did not include many of the new features that will have substantial aesthetic impacts on scenic views. Yet the current MND/Addendum does not adequately address these new features in relation to scenic views, nor sufficiently address the aesthetic impacts of relocation of all the exhibits under the new proposal.

2) **The report admits that the project would have a significant impact on the environment if it substantially reduced the aesthetic quality of the remaining parklands.**

The current proposal, in fact, substantially and permanently increases the severity of aesthetic impacts on the remaining parkland areas. As compared with the previous plan, virtually all of the proposed animal exhibits and visitor areas have been moved up into the area directly abutting the primary parkland access, where they will be visible and audible from the parkland as a developed intrusion of buildings, fences, fake boulders, elevated walkways, noisy crowds of people and other developed structures into what are currently bucolic, peaceful grassy hill views with prominent soft oak shadows, natural rock outcroppings and an unobstructed vista beyond. The previously approved plan had much less impact on the parkland experience because the majority of the exhibits were located on the Zoo side of the

ridgeline and less overall space was devoted to these exhibits [Table 2-4, MND/A]. Members of the public have repeatedly said how highly they value the peaceful character of the parkland. Under the revised plan, park users standing at any of the viewpoints in the remaining parkland will look down upon a graded and altered site through a fence that extends above treeline, to a built environment that includes numerous buildings, walkways, boardwalks, structures and crowd noise. Clearly, the aesthetic quality of remaining parklands will be substantially and permanently diminished.

3) **The report admits that the project would have a significant impact on the environment if it would substantially degrade the existing visual character or quality of a site and its surroundings.**

Knowland Park, a public park, constitutes the immediate "surroundings" of the project, and the degrading effects upon it are not adequately accounted for nor mitigated.

The revised configuration of the project, for instance, involves a changed emergency plan that calls for the gravelling and widening to 20 feet of an existing fire road from Snowdown Avenue entering within and extending down the central spine of the remaining parkland with 8 foot turnouts every 300 feet and a 40 foot inside radius at the intersection of the few remaining parkland trails. These will have a major impact on the park user experience.

Both of these will completely change the foreground views and experience of peaceful grasslands that from the parkland made the vista beyond so compelling, something the previous plan did not do. The primary remaining public walking routes in Knowland Park will now all feature views of Zoo development, which substantially degrades the existing visual character and quality of the site and its surroundings. This means it has a significant impact on the environment.

4) **The simulations are misleading, inadequate or omit vital information needed to compare the aesthetic impact of the new proposal with the Approved Master Plan.**

The report's visual simulations and the claims made using them are misleading and incomplete in several ways: buildings and fences are rendered implausibly pale and transparent, and the grassland is portrayed as remaining green, while the proposal makes clear that these grasslands will not remain as they are due to animal and visitor traffic, walkways, construction, etc. The report notes that the project "will reduce the extent of visible open grasslands," but this is not accurately reflected in the simulation. The simulations also do not represent visually the effects of a 20 foot gravel roadway with turnouts and a 40 foot radius in the foreground of the views of the site, which will be quite different than the present mostly sunken 10 foot fire road.

The report claims that compared to the approved Master Plan, the proposed plan would result in reduced visibility of the California interpretive center building from the viewpoint in

Fig. 3.1-3b. However, no comparison simulations are offered to support this claim, which fundamentally mischaracterizes the proposed plan's effects on the view from this location. The previously proposed location for the interpretive center was just over the saddle of the ridge away from the parkland, screened behind trees, and under the approved Master Plan, the interpretive building itself was to be a "low profile" 7500 square foot one story building, as opposed to a 34000 square foot 3 story structure under the new proposed plans.

There are no simulations directly comparing the previous Master Plan with the current proposal. In the absence of these, it is impossible for the public to visually assess with any accuracy the difference in aesthetic impacts between the two plans.

There are no simulations taken from the area proposed for the pedestrian hiking trail up "Heart Attack Hill" or the "Upper Knoll" from the northern park side. Fig. 3.1-8 shows the view from on top of the hill, but does not show the view looking northeast from the planned trail up the hill to get there, as opposed to the view from the same location under the approved Master Plan. This is incomplete and ignores a major impact on views from this location.

The simulation of the view from the Upper Knoll does not adequately capture the view as a pedestrian on the hiking trail would experience it. The hiking trail runs between the landmark tree pictured in Fig 3.1-8 and the fenceline, yet the simulation photo is taken from much farther to the south, which minimizes the visual impact of the fence on pedestrians. This is misleading.

The simulations of the aerial gondola towers (e.g. Fig 3.14-a) do not appear to accurately characterize the size of the proposed gondola towers, which are projected to be 12X12 at their base and extend vertically as much as 60 feet. It is also unclear what the structure protruding above the treeline in the center of the photosimulation after buildout is, since this does not appear to be the location of the proposed multi-story interpretive center building. In addition, given the simulation of the gondola route, this simulation does not show its termination in the proposed multi-story interpretive center building. Since the aerial gondola cars are planned to be carried above the trees, this is visually misleading as it shows no towers further up the ridge and the cars will not drop down on the other side.

The simulations of Figs 3.1-6-a and 3.1-6b appear to show trees covering the west-facing windows of the multi-story interpretive center. Given that the whole point of putting a building on top of the ridge is for the views, it seems unlikely that the trees would be actually placed in this configuration. Also, this simulation likewise renders the gondola tower, gondola wires and gondola cars implausibly invisible and is thus misleading to the public. In addition, these simulations do not reflect the relocation proposed for the interpretive center as a result of the habitat issues discussed elsewhere, and thus are inaccurate.

We note that while Interstate 580 is identified as a scenic route and thus subject to specific planning guidelines, the only simulation was from I-580 looking southeast. It does not show

any aerial gondola towers, which seems questionable since the cars will ride above the trees and terminate at the interpretive center building, which is visible. This would also appear to be an incomplete summary of the effects on the scenic corridor. No simulations from I-580 looking north-northeast are provided. It appears that it is from that angle that the 60 foot aerial gondola towers would be likely to be most visible. Thus the simulations do not permit adequate evaluation of the full impacts.

In short, the simulations are seriously flawed, misleading and/or incomplete, providing inadequate information about the project's impacts to the public.

3.2 AIR QUALITY

While Friends of Knowland Park notes that page 3.2-21 states that "BAAQMD 2010 CEQA Guidelines and the City's significance criteria provide that localized CO concentrations should be estimated for projects in which 1) project generated traffic would conflict with applicable congestion management program established by the county congestion management survey" but that the proposed Amended Master Plan wouldn't meet this criteria, common sense suggests that localized concentrations should be estimated for a project of this magnitude, particularly one located along a major Interstate freeway. We urge that this be done.

We are also concerned with construction effects on air quality that have not been specifically addressed in the MND/A (see Hazards section, below).

Finally, we feel the air quality section overlooks important considerations. For example, on p. 3.2-27, the MND/A states that the BAAQMD recommends evaluating all sources located within a 1000-foot radius of the project site. However, because the project site is centered up on top of the ridge, the report says the 1000-foot radius includes no freeways or major roads. In actuality, the vast majority of zoo visitors drive to the Zoo on the I-580 freeway, and this expansion is expected to draw a great many more of them. By a reasonable person standard, it is unacceptable to say this should not be part of the air quality evaluation of the project.

3.3 BIOLOGICAL RESOURCES

The Biological Resources section shows most clearly why a full EIR should be required for this project to proceed on public lands. The identification of rare and endangered species in the expansion area in recent surveys, which were not found present in 1998, is a new development of major concern.

This project will have significant, damaging effects on locally endangered species and rare plant communities that cannot be fully mitigated, thus requiring a full EIR under CEQA. The project is in conflict with several provisions of OSCAR, including but not limited to those

discussed below, and it is not congruent with the General Plan's aims of preserving plant communities, rare and endangered native animal species, and habitat for both, nor with the stated conservation mission of the project as a whole.

Tree removal

Friends of Knowland Park notes that the City arborist has found the inventory, labeling and mapping of trees for removal under the project to be inaccurate and inadequate for verification purposes as of this month; this has resulted in the Zoo withdrawing its application for a tree removal permit to begin work. Given that the Amended Master Plan project is not yet approved, it is premature to approve a tree removal permit, but in any case, this means that the documents provided in this report cannot be said to accurately reflect the environmental impacts, including not only the calculations in the Biological Resources section, but also the estimates on carbon sequestration under the Global Warming section and elsewhere.

Sensitive and Important Plant Communities

OSCAR Policy CO-7.1 speaks to preservation of native plant communities, "especially oak woodlands…native perennial grasslands, and riparian woodlands." The expansion site, as noted, is one of the last remaining tracts in the Oakland hills with relatively intact native plant communities of these three key types. While the MND/A calls for replanting of native trees at a 3/1 ratio, the MND/A does not specify where these will be planted, nor does it identify the specific areas of mitigation for grassland replacement.

The Board of Forestry and Fire Protection, which has regulatory authority over all of California's oak woodlands at the local and state level, has generally interpreted the term *significant stand of [oak] tree species* to mean those stands with a canopy cover of 10% or greater" [*http://www.californiaoaks.org/ExtAssets/CalifOakWoodlandLaws.pdf*] . According to the Zoo's measurements, the Oak Woodlands represent 2 acres out of 19.7 affected acres. Thus the impacted area is >10% Oak Woodlands, and would appear to fall under the jurisdiction of the Board of Forestry and Fire Protection under CEQA. This is not adequately addressed in the MND/A.

Resource documents:

http://www.californiaoaks.org/ExtAssets/CalifOakWoodlandLaws.pdf
http://www.californiaoaks.org/html/2040.html

Knowland Park is home to large areas with relatively undisturbed and rare Valley Needlegrass Grassland, a native plant community. The Amended Master Plan proposal would result in destruction of large areas of this grassland. Mitigation measures, including restoring grasslands and clearing areas of invasives, are presented. However, it is proposed that the replacement acreage for mitigation would be in Knowland Park itself. Since the Zoo is responsible for Knowland Park stewardship, including stewardship of the parkland areas

outside the Zoo itself and outside the proposed expansion area, any degraded areas were already the Zoo's responsibility (See Stewardship section, below). Restoring any degraded grasslands does not address mitigation sufficiently, since there will still be a net loss of native grassland.

The MND/A also notes that a rare native wildflower and CEQA-protected plant, *Leptosiphon acicularis*, was found in an area proposed for the wolf exhibit. Under OSCAR, such plants should be protected. However, the mitigation measures included, which include watching after construction to see whether the wolves dig there, are not sufficient to protect the plant. These rare plants should not be enclosed in the wolf habitat, which should be moved elsewhere or the perimeter fence boundary moved in to protect the area in which this rare plant grows in its present location. Further protections, including fencing with an appropriate perimeter as determined by a professional botanist, should be required.

MND/A revisions to Mitigation Measure 14c (p. 3.3-38) say that the as-yet undeveloped Mitigation and Monitoring Plan shall, among other things, include "provisions for interpretive programs and access restrictions." It is unclear what, specifically, is meant by this clause. Whose access will be restricted, and in what ways? Where will the 'interpretive programs' be located? Will this mean that groups will enter mitigation-provided grassland habitat areas and whipsnake (see below) habitat? Where will these be located? More detail is needed about the specific measures proposed to mitigate these effects on threatened species. Appendix G-2 likewise refers to subject matter experts (certified pest applicator, qualified botanist, certified arborist, on-site biological site biological monitor, qualified biologist and qualified wetland specialist) required to ensure the Zoo follows environmental guidelines. These should be the only people permitted into the areas of these threatened species. However, these sections do not adequately address how this monitoring will occur and be reported. The monitoring must be conducted by an independent third party.

Animal Species

The MND/A notes finding an Alameda Whipsnake, a threatened species that was not identified on the site at the time of the 1998 approval. While 13 years ago, no whipsnakes were found, the project was considered to be critical habitat for this species, which is at risk of extinction. This may be the only whipsnake in the city of Oakland. The identification of the snake in the project area is an extremely significant new development. The U.S. Fish and Wildlife Service [*http://www.fws.gov/sacramento/es/animal_spp_acct/alameda_whipsnake.pdf*] has noted that the population is only found in five areas, one of which is the Trampas/Chabot hills. However, due to the unique features of the Knowland Park topography and its relative isolation/separation from the other identified habitat areas by roadways, it is entirely possible that the snakes occupying this habitat are a unique subtype genetically distinct from those

found in the Lake Chabot-Las Trampas area, which is some distance away and separated by development. If this were a new population, this would represent an even more significant find, but without testing, this cannot be determined, and thus the true environmental impact of the proposed "incidental take" of snakes and compensatory mitigation cannot be determined. Whipsnakes are fast moving, but do not have a wide territorial range. Females typically move little, especially during breeding season, and thus would be less likely to be trapped. Therefore, a young male suggests the potential for others to be in the area.

The project will result in direct and indirect impacts on a known threatened or endangered species protected under federal and state laws, requiring that a full EIR be completed.

The MND/A admits that the site must now be considered occupied habitat of this threatened species. The USFWS notes that, "The only evidence of Alameda whipsnake egg-laying is within a grassland community adjacent to a chaparral community." This description precisely characterizes the site of the California project's greatest-impact areas under the Amended Master Plan proposal, a fact clearly indicated in the document (Fig 3.3-1).

Yet the Amended Master Plan project proposes to place buildings, roads and animal exhibits either on top of or in close proximity to this occupied habitat. The Addendum recognizes that significant impacts will result and largely relies on the Habitat Enhancement Plan and Mitigation and Monitoring Plans to be prepared in the future to mitigate these impacts. However, there is inadequate detail provided about these as-yet unprepared plans to ensure mitigation of the project's impacts. In addition, as our legal advisers note, the City has failed to make them enforceable though legally binding instruments.

The MND/A provides no information on the potential for vibration from the proposed gondola ride/people mover, noise and trash from the visitor center, and other aspects of the project to affect whipsnakes.

The MND/A asserts, without providing evidence or discussing location, that "there is adequate area within Knowland Park to achieve" the mitigation ratio of 1:1 acre for every area of impact (p. 3.3-38). From a "reasonable person" perspective it is difficult to see how the Zoo can be permitted to remove core habitat for a species threatened with extinction and claim as mitigation other areas of habitat *within the same site* or sites *within protected parkland* that *already exist*.

The Mitigation and Monitoring Plan must be developed before approval, to ensure that in fact, the mitigation measures reduce the impact on threatened species to less than significant levels as claimed. In the absence of a detailed plan, it is impossible to assess this. The appropriate authorizations required from the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) pursuant to the requirements of the federal Endangered Species Act and the California Endangered Species Act, respectively, should be

obtained *before* the project is approved, since they might reasonably be expected to necessitate additional project changes that would generate other impacts.

Friends of Knowland Park also notes that Table 3.3-1, "Comparison of Estimated Vegetative Cover Affected (Acres)—Approved Master Plan and Proposed Master Plan Amendment," does not actually show what its title would suggest, since it does not provide equivalent data for each condition. This does not permit accurate comparisons of the impacts of the Approved Master Plan and the proposed Amended Master Plan projects.

As the USFWS describes, whipsnakes remain in grasslands for periods ranging from a few hours to several weeks at a time. Grassland habitats are used by male whipsnakes most extensively during the mating season in spring. Female whipsnakes use grassland areas most extensively after mating, looking for egg laying sites. The existing intact ecosystem of Knowland Park supports the other species that provide shelter and food for the whipsnake, including the burrows of gophers and the multiple lizards, skinks, etc. that are food sources and identified in the report as inhabiting the site. There is no discussion of how the project will affect this overall habitat and these other species, which cannot be replaced merely by removal of invasive broom as discussed.

The 1998 MND called for "whipsnake habitat" to be preserved in perpetuity on the "land owned by the East Bay Zoological Society" [we note that the City of Oakland actually owns all the land in question, so this was misleading] east of the then-proposed California exhibit. This provision to preserve whipsnake habitat in perpetuity should be kept in any approval, and it is particularly relevant to a project with wildlife conservation as its mission**.** The boundary of this preservation area must be extended, given what is known about whipsnake survival needs. A qualified herpetologist should be consulted to establish meaningful borders for a protection area and search for additional snakes in nearby areas.

The MND/A's Revisions to Mitigation Measure 13c from the 1998 Approved Master Plan (p. 3.3-39) now read that: "The service road shall be a maximum of 15 feet in width and designed to accommodate crossing by Alameda whipsnake and other wildlife, where necessary…" It is unclear what "where necessary" means in this context, and how that would be determined. No intrusion of the service road into sensitive whipsnake habitat should be permitted.

APPENDIX G-1, Status of the Alameda Whipsnake in Knowland Park for the Proposed Expansion of the Oakland Zoo, (Swaim Biological, Inc., 2011) recommends removing the amphitheater from the project. The MND/A, however, mischaracterizes this as "removing the amphitheater from the stand of chamise-chaparral," which is ambiguous as to whether the amphitheater will still be part of the proposed Amended Master Plan or whether it will actually be removed altogether as recommended by the consultant. If the amphitheater is to

remain, then the new location must be specified. These highly relevant facts under CEQA are not provided, thus making it impossible to determine whether the impacts are adequately mitigated. It is also unclear whether the proposed Interpretive Center will be re-sited, as recommended in Appendix G-1, and whether this re-siting creates new impacts not yet analyzed, since the documents present it in the previously proposed location. Likewise, the MND/A refers ambiguously to "*restricting* the California Interpretive Center ten feet to the east**"** rather than "moving**"** it as recommended in the report.

Frog Populations in Knowland Park

The MND/A also notes that the potential for the threatened California red-legged frog was not addressed in the 1998 MND. However, it fails to describe completely circumstances leading to obliteration of an existing seasonal pool and frog breeding area known locally by regular parkgoers as "Lake Willbegone". While Friends of Knowland Park claim no expertise in frog identification, this was a known site for frog breeding in the late winter to spring months, with tadpoles teeming in the standing water. The MND/A identifies this area as a "950 square foot" seasonal wetland that has little habitat value (3.3-42). However, there is history here that has been documented in repeated emails to city staff and is omitted from this report, provided below (copies of emails available on request).

A few days after a Zoo-community meeting on May 18, 2009, at which the existence of this seasonal vernal pool was raised publicly in the meeting by a community member as being a concern because it was within the proposed project site, annual fire road grading (initiated by the Zoo as the stewards of the parkland) was done with an especially heavy hand-- deeper and wider than any grading ever previously done that neighbors can recall. Specifically, and interestingly in light of the city's existing creek ordinance developed since the 1998 approval, this grading entirely obliterated the large seasonal vernal pool and associated habitat at the confluence of the four current roadways between the hills, right at a central portion of the Zoo's proposed "California!" project expansion area.

While the MND/A attributes this pool solely to the results of prior road grading, the site lies at the base of several natural downslopes and water naturally pools there. This pool was regularly a breeding ground for frogs, a pair of ducks visited it yearly in rainy seasons, and other bird life were seen in it, including a great blue heron. This was not just a puddle created by a rough road, as the MND/A suggests, but was a seasonal pool created by the confluence of the slopes around it. The grading not only obliterated the distinctive cracked ground and flora that characterize such seasonal pools, but bulldozed a long (approx 60 feet) sloping stretch away from it downhill in a way clearly intended to insure that it did not refill. There was no need for this track to be created for the purpose of turning around grading equipment, since the site was at the confluence of four roads. It is difficult to imagine why it would have

been done except to ensure that the pool, which was located at the epicenter of the proposed Amended Master Plan exhibit site, would be eliminated. Since the fire road was used only in the dry season, the pool was not a concern for fire access purposes. It is difficult not to consider the possibility that the grading was done so that the pool was no longer something that would have to be considered as part of the environmental evaluation of the site.

This was reported to the city's creeks coordinator, Charles Pons, in February of the following year, after the rains began and it was clear the pool would no longer refill as before and thus could no longer provide frog breeding habitat. In June, when no further information was forthcoming despite repeated queries, this matter was reported to city planner Darin Ranelletti, who replied that he was aware of the issue and city staff were "looking into it." No further response was ever received, despite submission of Google earth photos showing the 60 foot track leading away downhill from the site. Friends of Knowland Park believes this was a relevant environmental site and that its obliteration may constitute a wetlands violation under CEQA or other regulations.

The Habitat Enhancement Plan, APPENDIX G-2, Habitat Enhancement Plan at the Oakland Zoo California Exhibit and Upper Knowland Park (Environmental Collaborative, 2010b), which we note actually constitutes a plan to have a plan, rather than being itself a plan as entitled, calls (Action 5-3, page 18) for additional surveys to be done to confirm the presence or absence of additional populations of special status species. However, if such species occupy the site, it would be important to know that prior to approval, as this could have implications for the project siting and could result in additional environmental impacts on that basis.

Particularly given the fact that the whole expansion project is being undertaken in the name of educating the public about conserving native California species, the project requires a full EIR to address all these issues.

MND/A OMISSIONS—Biological Resources

Sudden Oak Death

The MND/A fails to address a major California environmental issue, Sudden Oak Death (SOD). A phenomenon known as Sudden Oak Death (SOD) was first reported in 1995 in central coastal California, but was not well documented, understood or widely known about in 1998 when the Master Plan was approved. Since then, it has killed over a million tanoak, coast live oak, Shreve oak, and California black oak trees. (*http://anrcatalog.ucdavis.edu/pdf/8426.pdf*) No project claiming a conservation mission should be approved in the absence of a detailed plan for addressing SOD, most especially one in the city named for the oak.

Sudden oak death is caused by a pathogen called *Phytophthora ramorum*. The pathogen is not a fungus or a bacterium, but a member of a unique group of organisms called Oomycetes. In addition to affecting oaks, it also infects Bay laurel, madrone, manzanita, and buckeye trees.

SOD has important implications for any development project in areas with oak woodlands because soil disturbance in such areas may render oaks more susceptible to infection. In addition, soil from around infected trees and plant material from infected trees can infect other trees.

Although SOD is a forest disease, it is most common in urban-wildland interface areas—places where development meets or intermingles with undeveloped wildland—precisely the type of environment represented by the proposed project site. Diagnosis of infected trees and proper disposal of contaminated wood and other material are essential to limiting the spread of the disease. Management options include treatment with phosphonate compounds and selective plant removal.[http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74151.html]

SOD can be spread by moving infested soil and plant materials. Both state and federal regulations are in place to control the potential spread of the pathogen to uninfested areas. The California Department of Food and Agriculture (CDFA) and the U.S. Department of Agriculture Animal and Plant Health Inspection Service (USDA–APHIS) regulate movement of any known host species. A quarantine is in place for the infested counties [http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74151.html].

Dr. Matteo Garbelotto of UC Berkeley, a forest pathologist specialist and internationally recognized expert in SOD, toured the Amended Master Plan site in May, 2010 at the invitation of Friends of Knowland Park to discuss signs of SOD and mitigation measures that should be included should infected trees be identified on the expansion site. He identified several trees with characteristic symptoms within the area, and reports (see letter, Appendix 1) that the disease has been found in Knowland Park and is currently mostly affecting bay laurel leaves. As he states in his letter, other landowners, including the San Francisco Public Utilities Commission, have taken SOD presence and distribution into account and modified plans accordingly. He recommends a complete survey of disease distribution, a designation of areas at high and low risk, and practices to reduce risk of transmission. More information is available on his lab's website, *http://www.cnr.berkeley.edu/garbelotto/english/index.php*

The absence of significant SOD infection in Knowland Park to date makes it even more imperative that a full Environmental Impact Report under CEQA be completed. Additional assessments for SOD should be performed before work is begun since stress of existing trees, disruption of soil and roots and disposal of plant material, including other types of trees that

serve as hosts, could inadvertently increase susceptibility or spread the disease to the remaining oak woodlands in the park.

OSCAR Policy CO-7.1, as previously noted, calls for protection of native plant communities, "especially oak woodlands." The siting of the Overnight Experience campground, with multiple very large (10X20 foot) platform tents housing a total of up to 100 people in one of the most beautiful groves of mature oaks on the expansion site, is likely to create increased stress on these oaks through trampling of root systems, shading and water effects from platforms, disturbance of soil from construction, disruption of understory plant communities, and other effects not addressed or mitigated by the MND/A. In addition, the grading plan (3.4-25) must be revised to include information about disposal of contaminated soil from any identified areas of infection. It would be a tragic outcome if a conservation-focused project contributed in any way to increased loss of the city's signature oaks to this serious disease.

MND/A OMISSIONS —Effects of Widening of Fire Road on Plant Communities and Species Habitat

The widening of the existing fire road off Snowdown Avenue is likely to impact a large existing colony of California lupine, which could affect butterfly habitat. This is not addressed in the MND/A. The California Mission Blue butterfly, which is protected under the federal Endangered Species Act, lays its eggs on the leaves, buds and seedpods of lupines, and its breeding has been greatly impacted by development. The area where this colony of lupine exists is outside the proposed Amended Master Plan expansion area but contiguous to the fire road, and would be likely to be obliterated entirely by its widening to 20 feet with turnouts, as called for in the Amended Master Plan proposal. An appraisal of the environmental impacts of the fire road widening on butterflies, other species utilizing lupine, and on other native plant communities in the parkland outside the perimeter fence is lacking in the MND/A and should be required before the project is approved.

CONCLUSION

The MND/A does not adequately describe, address nor mitigate the significant effects the Amended Master Plan proposal will have on special status animal and plant species, communities and habitat.

- As proposed, the project will result in direct and indirect impacts on a known threatened or endangered animal species protected under federal and state laws, requiring that a full EIR be completed.
- The project will also result in elimination of rare plants identified on the site, as the mitigation measures proposed are wholly inadequate for their protection.

- The project as proposed directly conflicts with numerous provisions of the City's General plan OSCAR policies; these are mentioned here representatively rather than exhaustively due to time constraints for receipt of public comments.

- The MND/A leaves several key issues unnecessarily ambiguous, including the recommended elimination altogether from the plan of the amphitheater and the re-siting of the proposed Interpretive Center building.

- The project's effects on existing frog populations are not fully addressed, and the report mischaracterizes a water feature used by breeding frogs.

- The Habitat Enhancement Plan provides inadequate detail from which to determine whether it will effectively and sustainably address the proposed project's many environmental impacts on existing plant and animal life.

- The MND/A completely omits discussion of a major environmental concern for oak woodlands, Sudden Oak Death, and of the effects on existing parkland plant communities of doubling the width of the emergency access road.

In multiple respects, the MND/A shows why a full EIR under CEQA is required for this project.

3.4 GEOLOGY AND SOILS

The Geology and Soils section does not sufficiently pursue an in-depth evaluation of how known seismic hazards at this site could seriously endanger human health and safety, especially with reference to the proposed gondola, gondola support structures and California Interpretative Center. Geological risks are also associated with the location of the Veterinary Hospital.

Major Earthquake Hazards

Several of the proposed features are located very near the Hayward Fault. The active trace of the Hayward Fault Zone passes approximately 750 feet southwest of the proposed Vet Hospital site and ~ 2000+ feet from the proposed California Interpretative Center site, gondola support structures, and elevated walkways of the California animal exhibits (3.4-27). A major earthquake, or surface rupture, along the Hayward Fault could greatly impact all of them.

The probability of a major earthquake in the near term future is extremely high. According to the Working Group on California Earthquakes, there is a 63% probability of an earthquake of Richter Magnitude greater than or equal to 6.7 between 2007 and 2037 in the Bay Area (3.4-11), and more specifically within this estimate, a 31% chance of a large earthquake on the

Hayward Fault in the same time frame (3.4-11 and 3.4-13). In other words, there is a 30% chance of a major eruption within 0.1 kilometers of the proposed Master Plan Amendment Area. Although the project is more than 200 feet from the Alquist-Priolo Earthquake Fault Zone (EFZ)—a designation that was created to deal largely with the issue of occupied homes on surface trace faults—this fact does bring additional attention to seismic risks in this part of Oakland.

In the event of a major earthquake, failures in the aerial gondola system could pose serious public safety risks. The proposed aerial gondola consists of eight support structures and an anchor at the proposed California Interpretive Center. Failure at any point could lead to severe accidents, possible injury or even death. Gondola cars could swing widely during an earthquake, or the system could even fail—stranding the public high in the air. Yet, MND/A report does not present the aerial gondola system as a unified whole that could respond strongly, and possibly erratically, to earthquake movement.

Other Risks

The northern half of the proposed California Interpretive Center building and at least three of the eight independent proposed gondola support structures (#4, #6, #8) lie within a defined seismic hazard zone (State of California Hazards Map, see 3.4-21 and Figure 3.4-5). Notably, these defined zones were specifically developed by state law to help protect the public from the effects of seismic hazards other than surface rupture (3.4-8).

In addition, two of the proposed aerial gondola support structure locations (# 5 and #6) are shown as being close to "probable landslide areas" (Figure 3.4-3). Indeed, structure #6 is extremely close to a "probable landslide" area that would like flow to the southwest, and it, along with #5, lie astride a second "probable landslide zone" that would like flow to the north. Thus, these supports for the aerial gondola might be subject not only to known seismic impacts quickly following an earthquake on the Hayward Fault, but also might be involved in subsidence due to other factors as well. Similarly, the newly relocated proposed Veterinary Hospital Building, at the bottom of a ravine area, is also near "probable landslide areas" (Figure 3.4-3).

Finally, portions of the California Exhibit are underlain by undocumented non-engineered fill that may settle differentially. This could pose a problem for the proposed California Interpretive Center site (where one end of the gondola construction will likely be located). Nonetheless, this fact did not receive a full study because "at the time of the 1998 MND this criterion was not in effect" (3.4-35). The fact that the gondola itself is a new feature of the current proposal—and links to a dramatically redesigned and expanded proposed interpretive center—suggests that it should be given full review, rather than scanty reference.

In short, there are several geological or soil hazards, apart from strong earthquake movement that could impact key project elements and have not been fully addressed. Three of the eight independent support structures for the proposed aerial gondola (#4, #6, #8) as well as the proposed California Interpretive Center (and possibly the Veterinary Hospital Building) are at potential risk from other kinds of ground movement, landslides, and/or differential subsidence.

Surprising Conclusions

Despite presenting a long list of known geological hazards and other instabilities, the "slope stability screening investigation" concludes that "there is an absence of seismic landslide hazards in the Master Plan amendment area and that no additional investigation of earthquake-induced landsliding is needed" (3.4-25). Risks are also downplayed in the final analysis. The report concludes that all substantial risks to people or structures of loss, injury or death associated with strong seismic ground shaking, ground failure or even landslides can be reduced to less-than-significant levels for the proposed project through compliance with requirements and implements of the geotechnical and design criteria (3.4.5.3; 3.4-26). These comments appear to skirt the issue of whether the project should be resigned and relocated to reduce existing natural risks. Nor is there an adequate discussion how a response team would respond to an earthquake emergency at the site.

Miscellaneous Issues

There is no clear discussion of whether serpentine (and possibly asbestos) is present in the proposed new project development site. This would be a special problem during construction and grading, but could also have implications for public use areas as well.

CONCLUSION

The proposed project lies virtually atop the Hayward Fault. It is estimated that this fault has a 30% probability of generating a large earthquake in the next 30 years. Ruptures on other Bay Area faults could also impact the site. In addition, several proposed gondola supports and the proposed California Interpretive Center are located within a designated seismic hazard zone, and near what are designated as "probable landslide zones." Despite acknowledging these hazards, the geology and soils section concludes that the overall risks and hazards for people and property are less-than-significant. A reasonable person standard would conclude that the geological and soils impacts of this project have been inadequately addressed.

Oakland's General Plan OSCAR safety element (3.4-10) states that regulations and programs to reduce seismic hazards should be implemented and enforced. In this project, it appears that public safety seems to be put unnecessarily at risk with the current location of the gondola and California Interpretive Center. Greater study is needed and perhaps a revision of the project

design is likely needed given that gondola support structures and the California Interpretative are within a seismic hazard zone, near a probable landslide area, and close to the active, dangerous Hayward Fault trace. Coupled with the finding of a threatened Alameda whipsnake nearby, several elements in the proposed project should be redesigned, relocated or removed entirely. At a minimum, a full environmental impact report is needed.

3.5 GLOBAL CLIMATE CHANGE

Global Climate Change (GCC) is clearly a new development that was not addressed in the 1998 Approved Master Plan, so the proposed Amended Master Plan, if it creates any GCC impacts, would create new impacts not previously identified. According to the MND/A, however, the conclusion for all questions raised about GCC is that the project will have a less-than-significant impact and therefore no mitigation is required. However, Friends of Knowland Park believes there are important problems with the way potential GCC effects were appraised.

The assumptions on the basis of which the emissions figures were calculated appear faulty and/or inconsistent.

Studying the MND/A, as well as supporting reports, we find that the number one factor being analyzed and quantified in regards to the location of the project and the project itself is the emission of the greenhouse gas (GHG) Carbon dioxide (CO2).

The MND/A reports that in the Bay Area, fossil fuel consumption in the transportation sector is the single largest source of GHG emissions, accounting for over 50% of the total GHG emissions in the Bay Area. The GHG emitted from this source is CO2.

For the City of Oakland, the annual GHG emission is approx. 3million metric tons, all from CO2 (2005), and in Oakland, transportation accounts for an even higher percentage, namely 58% from the transportation sector, 22% from gas consumption, 16% from electricity and 4% from decomposition.

Both because of increased vehicle traffic and because of effects on existing vegetation, this section is important to get right.

Vegetation sequesters CO2. Knowland Park, containing three important protected habitats, namely Oak Woodlands, Riparian, and Grassland, is currently a significant source for GHG sequestration and is thus a contributor to climate control.

One question discussed in the MND/A is whether the change of vegetation due to tree removal and replanting of trees changes the CO2 sequestration capacity and consequently contributes to CO2 emissions significantly. Based on the interpretation of the available

resources, including a report from ENVIRON, the lead agency determined that the impact of stationary and other than stationary sources of CO2 emissions from the project will stay below the significant threshold of 1,100 metric tons/year (BAAQMD) and that therefore the impact on Global Climate Change will be insignificant.

After careful study of the provided data analysis by Environ and the Table 3.5-3 on Page 3.5-18 of the MND/A, we find that:

The number for GHG emission Annualized Vegetation, of 6 tons CO2e/ year is not supported by the data of the report and appears to be a mistake.

The ENVIRON Report gives two different numbers in different context.

1. 390 metric tons CO2e/year, as the total one-time equivalent CO2 emissions attributable to the net change of vegetation. This is explained in the report as the difference between the total before-project sequestered CO2 and the after-project sequestered CO2 is the one-time CO2 released from clearing the vegetation less the CO2 sequestered by new plantings.

In a later paragraph these 390 tons are coupled with

2. 274 tons of CO2/year sequestration potential of 370 new trees, which the Zoo intends to plant.

While the first number of 390 is based on the acreage of different land types and the land type applied CO2 sequestration capacity, including new planting, the second number of 274 is based on the assumed number of 370 replanted trees.

It appears that because these two numbers are of differently defined categories they cannot be combined in one equation. Furthermore, the difference of -116 tons of CO2 sequestration capacity or 116 tons of CO2 emission reported does not appear in the table. There, this number is listed as 6 tons.

It also needs to be explained why 274 tons CO2 sequestration are being deducted again from the 390 tons of CO2 emission, when the CO2 sequestration from new plantings is already supposedly included in the 390 tons CO2 emissions figure.

This is important, because 390 tons CO2 emission per year from Annualized Vegetation would increase the GHG emission from the project to 1,239 tons, which is well above the BAAQMD CEQA threshold of Significance.

Furthermore, while the proposed mitigation measures require replanting of protected trees, several of the trees identified for removal are over 2 1/2 feet in trunk diameter. Even if the Zoo plants the 370 new trees as identified in the ENVIRON report, these are all slow to moderate growing trees and it could take decades to replace the loss of mid-mature to mature oak trees and their CO2 sequestration capacity. This and other factors call into question the assumptions made in the technical calculations about disturbed land returning to its original state, which is used to justify not calculating the CO2 removal rate associated with project disturbances and removal of vegetation.

While the lead agency argues that, because the Bay Area Air Quality Management District CEQA Guidelines do not contain recommendations regarding whether to include GHG emission from vegetation in an emission inventory, and thus the presented analysis is conservative, this is a rapidly evolving regulatory sector and it is realistic to assume that while this project is being reviewed existing recommendations may change further. We question why data from CO2 sequestration potential should not be included in analysis, when a quantification method has been already identified, obviously for the reason that CO2 sequestration potential plays an important role in the reduction of Greenhouse Gas emissions.

The inconsistencies make it impossible to adequately evaluate whether the environmental impacts on GCC are significant. The numbers need to be verified, because this could change the annual total GHC emissions from the project to above the threshold of significance. We also note that the ENVIRON report accepts Zoo estimates about acreage types for sequestration potential. These figures should be independently verified.

Even if the verification of the quantitative value of Annualized Vegetation confirms that it is less than significant, we still intend to challenge the removal of mature native species trees, namely Coastal Live Oak in Knowland Park, because Native Oak Woodland is a protected habitat by definition in the General Plan of the City of Oakland.

The City of Oakland's interest in the advantages of the project, in regards to revenue, research, education and entertainment, conflict with its responsibilities as the lead agency for the environmental planning process of the project. It is important that the City respect its own regulations for the protection of native habitats.

Fifty-one native species trees are identified for removal, most of which are mature trees, older than twenty years. Because Live Oaks are moderate growth trees, it is conservative to assume that some of the Oaks with a trunk diameter over two feet are close to fifty years or older. An arborist would be able to verify this statement, yet we don't find in the MND/A any information on the estimated age of these trees.

Furthermore, 110 Live Oak trees are identified as standing within only ten feet of the construction during one or more of the four construction phases. The MND/A states that this poses a significant risk of damage to the trees, which means that the net loss of native Live Oaks may be much greater than 51. Yet it identifies the presence of a certified arborist on site during construction as a sufficient measure to mitigate this problem. The mitigation measure is questionable, because mere practicability suggests that an onsite change of plans during construction, to save the existence of a tree, is highly unlikely. In addition, the damaging effects of trampling of root systems, removal of understory vegetation, spillage of fuel and construction-related chemical substances, and others may not be visible immediately.

Experience and the acknowledgement of human psychology makes it conservative to assume that once construction begins, the project will be pushed forward and an onsite consulting arborist will be pressured into approving any necessary action required to not hold up construction deadlines.

3.6 HAZARDS AND HAZARDOUS MATERIALS

Omission: Serpentine

Serpentine is present in the area of the proposed Amended Master Plan development. Serpentine is a naturally occurring mineral that can contain asbestos. As long as it remains undisturbed, it is not considered hazardous to human health. However, surface grading operations can disturb serpentine, releasing airborne asbestos fibers, which can cause mesothelioma, a fatal lung disease. The California Air Quality Resources Board includes serpentine in its Asbestos Airborne Toxic Control Final Regulation Order for Construction, Grading, Quarrying, and Surface Mining Operations [http://www.arb.ca.gov/toxics/atcm/asb2atcm.htm]. Bay Area Air Quality Management District Regulation/Rule 11-14 suggests that a registered geologist should determine whether serpentine is present and in what percentage. In addition, air monitoring plans during construction should include this aspect.

The proposed Amended Master Plan animal exhibit areas, which are noted to be in areas of shallow bedrock, are likely to include serpentine deposits. In addition to the issue of release of asbestos fibers during construction of buildings, boardwalks, etc., the enclosure of digging animals such as wolves within the area could contribute to ongoing release of asbestos fibers.

This also has implications for all areas of grading, including the proposed widening and gravelling of the emergency access road through the remaining parkland areas, which could potentially result in releasing airborne asbestos fibers from existing serpentine deposits**.** While it is possible that the serpentine on the site is not the type that contains asbestos, this has apparently not been determined by a registered geologist. The potential serpentine hazard issue does not appear to have been specifically assessed or addressed in any way in the

MND/A. A full EIR should include addressing this issue with an assessment of the presence or absence of asbestos-containing serpentine, and if present, its content percentage, within any proposed areas of disturbance.

3.7 HYDROLOGY AND WATER QUALITY

This section of the MND appropriately describes the array of agencies and legal frameworks that will constrain point and non-point pollution, sediment loads and other aspects of water quality and flowage. However, the lack of full project details makes public comment difficult despite extensive mapping and conceptual engineering supplements.

Five specific problems, however, are contained in the hydrological and water quality report. First, it obfuscates the long-term problem of flooding into nearby residential areas, especially Hood Street. Second, it fails to deal with the implications of the new finding of an Alameda whipsnake on the project site. This is understandable but leads to notable omissions. Third, it tends to present mechanistic, engineered solutions for dealing with runoff from the vet building but fails to present ecological alternatives that would be more compatible with the park environment. Fourth, it fails to assess the cumulative impacts that stress existing but inadequate systems for protecting Arroyo Viejo, especially those that deal with Zoo projects constructed since the 1998 agreement. Finally, it includes vague rather than precise project plans when discussing the California exhibit. This makes public assessment difficult.

Below is a discussion of these issues.

1) Flooding in the Hood Street Area

Through the comment period of the 1990s, local residents vigorously described long-term flooding from Knowland Park into the nearby neighborhood. The area of particular concern is the Hood Street area where backyards were often involved. Through numerous discussions, residents became convinced that the City of Oakland would take action to stop this unacceptable damage to their private property.

How is this presented in the MND? Although acknowledging neighbors' concerns about flooding, the report uses misleading language in defining how the new project will or will not lessen the flooding problem. Here is an illustration. In the summary of environmental impacts, the report poses the question, "I) Would the project expose people or structures to a substantial risk of loss, injury of death involve flooding?" Succinctly, here is the answer: "Neither the proposed Master Plan amendment nor the approved Master Plan would expose people or structures to substantial risk of loss, injury or death from floods. See discussion under Criterion d above." (3.7-31) What does Criterion d suggest? "The proposed Master Plan would not result in substantial flooding on- or off- site" because there would be no net

increase in peak stormwater flow, or again, "post-project flows would not exceed pre-project flows" (3.7-28).

This elaborate discussion avoids drawing attention to the fact that flooding in the Hood Street area will continue. The Aliquot Study published in 2010 (contained in the Appendix), makes clear that new hydrological mitigations will reduce the amount of flooding, possibly keep it at the current level, but not curtail flooding altogether (Aliquot, p. 3). The public can easily misconstrue or misinterpret the project plan, and erroneously assume the flooding will be stopped.

In fact, not only should the language be made clearer, but the project should also be required to present plans to end the flooding into the Hood Street area. This is both a public safety and health issue, and likely leads to property devaluation for nearby residents. As the upstream property owner, the City of Oakland appears to be responsible for seeing that this is done. Omission of a real solution to flooding in this area suggests that the hydrological section needs to be amended.

2) Alameda Whipsnake—New Findings

The hydrological study was prepared and completed before the release of the biological report released in January 2011 (in the MND/A appendix). It therefore cannot adequately address the fact that the Alameda Whipsnake, listed as a threatened species on the state and federal levels, was found at the proposed project site. Although it has been understood that potential whipsnake habitat existed near the proposed Visitor Center, Gondola, Amphitheater, and Campground, the fact that a snake has actually been found moves the level of discourse to another level. Although not part of the U.S. Fish and Wildlife critical habitat list, it is possible that the snake found is not related to one of the existing small number of populations currently known, and would therefore have even more ecological value.

As a result of all these considerations, the hydrological study needs to be expanded and revised. Indeed, the removal of the Amphitheater and relocation of the Visitor Center (both recommended in the current report Appendix) are likely outcomes of the whipsnake find. Even so, there are other implications of preserving the whipsnake habitat and access to local surface water needs to become a still higher priority since the snakes are not thought to migrate over long distances.

There is even a written commitment to preserve whipsnake habitat in the 1998 Final Agreement (13f). According to the agreement, Alameda Whipsnake habitat to the north of the California Exhibit will be maintained, in perpetuity, on the land "owned by the zoo." {Friends of Knowland Park notes that the repeated use of this terminology is very misleading to the public, since the City of Oakland owns all of Knowland Park and the Zoo. However, from a legal perspective it is clearly intended to require the Zoo to maintain whipsnake habitat within

its boundaries. } After the recent finding of a whipsnake, it is clear that the land involved is no longer "to the north" of the California exhibit in the Proposed Amended Master Plan, but actually *within* the California exhibit. This additional acreage within the current project site land should thus come under the contractual agreement for preservation in perpetuity, and this calls for a new level of extended hydrological survey. This also suggests that the existing hydrological features of this area should not be distorted by large scale impervious surfaces such as attend the proposed Interpretive Center and Gondola Terminus, boardwalks, gondola support structures, etc., or compaction of the soil due to construction and facility foundations, or from the usage by hundreds of thousands of visitors.

Since, as noted above, the zoo owns neither the land, nor buildings, nor animals at the Knowland Park facility, it is assumed that the reference in the 1998 Final Agreement (13f) should have been to the City of Oakland, since the city does own the land, buildings and animals. Therefore ultimate responsibility for whipsnake and whipsnake habitat preservation rests with the City of Oakland, not the East Bay Zoological Society, and as the Lead Agency for this project, a full Environmental Impact Report under CEQA is required to address this issue.

3) Re-Engineering the Watershed

In dealing with specific buildings such as the Vet Hospital, the report presents several heavily engineered projects that would substantially <u>increase</u> the extent of piping and artificial detention facilities in the watershed.

With regard to the major downstream impacts of the Vet hospital and road to California, for instance, the report focuses mainly on the flow into existing drainage systems called the North System and South System. Both consist of piped (underground) systems installed in the 1980s. Although the pipes have been enlarged from 18 inches and 24 inches up to 36 inches, "the overall systems [here] remain undersized to convey flow from the 10 year storm event" and indeed, complaints of flooding are reported (Addendum, Aliquot, p. 6). Most often, the backwater condition occurs at the inlet of an 18-inch pipe in the creek within the neighborhood to the southeast (see Figures 1 and 2). However, both the North and South Systems are deemed inadequate to handle the 10-year flow, and some of the water flows directly into the creek channel in that area.

Indeed, without enlargement of the entire pipe system that runs through the Sun Bear, Children's zoo exhibits and then discharges directly into the Arroyo Viejo open channel at Golf Links Road, the main alternative appears to be a detention facility upstream. Notably, the reports concludes, "It is prudent not to divert additional drainage from the Veterinarian Hospital to the South System to avoid exacerbating the back water condition in the neighborhood to the southeast of the parking lot where the area of flood occurs" (Addendum, Aliquot, p. 8).

Instead, the report suggests that increased flow resulting from the Vet Hospital will be "compensated" by detention facilities near the building itself.[1] The creek drainage here will be reengineered into a series of cascading pools and large detention storage structures close to the Vet building. This highly engineered approach, which includes a four-foot high wall to separate the building site from the creek, suggests how much the native character of the site is being converted into an increasing mechanized urban landscape. Piping of flow for discharge into the Arroyo Viejo channel downstream is partly envisioned.

The report does not adequately address alternatives that would be more suitable to the preservation of the existing parkland habitat. Undergrounding will result in loss of rare creekside habitat, impinge on wildlife access to freshwater, and will be hidden from future public awareness. Undergrounding of creeks and destruction of creek habitat is also contrary to the goals of the Oakland Creek Ordinance. Preservation and setbacks are defined goals for property owners in that document. Indeed, "daylighting" of urban creeks has been proposed former Oak Knoll Naval Hospital property nearby. Given a multi-million dollar cost for daylighting a short portion of Rifle Range Branch of Arroyo Viejo there, how can the hydrological report so easily adopt undergrounding as a solution at Knowland Park?

In short, the report should include examples of ecologically sensitive designs for dealing with runoff from the Vet hospital.

4) Omission of Cumulative Impacts since 1998 Agreement

According to the Addendum (Aliquot, p. 7): "purpose of this report is not to analyze for repair or to upgrade the existing inadequate Zoo drainage systems but to show that post development flows are not increased and thus do not impact Arroyo Viejo Creek at Golf Links Road". Yet, a number of the changes that were made to the East Bay Zoological Society use of Knowland Park since the 1990s have already had the potential to negatively impact on the quality and volume of water in Arroyo Viejo Creek. These are not analyzed in the current report, a glaring omission since the concept of the cumulative conditions should be expanded to include them, especially those associated with the Knowland Arboretum area.

The issues of particular concern in the Arboretum are the overflow parking area, maintenance facility and manure composting site.

---

[1] At one point, a large detention facility to regulate 15-year and 100-year flows was being studied (without public knowledge) for a site in a "depressed lawn area near the entrance gate to the Zoo, just north of the entrance drive of the lower parking lot" (Addendum, Aliquot, p. 8). This would have placed the detention basin in Knowland Arboretum near the main open channel of Arroyo Viejo. Although the arboretum basin was abandoned because the SD was undersized, this example shows exactly how difficult it is for the public to monitor and respond to proposed hydrological projects, especially when such projects would negatively impact the character and survivability of ecosystems in areas that were previously preserved due to historical or biological significance.

(a) Vehicle Parking & Maintenance Facility

Previously a picnic area and tree preservation area, Knowland Arboretum has become an overflow parking area for the zoo since the 1990s. Hundreds of vehicles are routinely parked at the base of the historically significant trees, and there is no evidence of controls that would prevent oil and gasoline flows to the ground and surface water that drains into the nearby, main open channel of Arroyo Viejo Creek. Nor is there evidence that soil compaction due to vehicle parking has been analyzed for damage to the existing trees in the preserve.

Similar potential hydrological impacts from the maintenance facility, built in the 1990s near the old farmhouse in Knowland Arboretum, appear to be unstudied in their relation to nearby Arroyo Viejo.

(b) Manure Composting

The large manure composting facility at the Zoo, formerly located on the south side of the park near Malcolm, was moved following the 1998 agreement, and is now much closer to the main Arroyo Viejo channel adjacent to the Knowland Arboretum. Indeed, hundreds of tons of manure are now composted outdoors under loose tarps. This poses a potential significant source of bacteria, microorganisms and other pollutants to enter Arroyo Viejo Creek and then be transported through downstream residential and commercial areas before entering San Leandro Bay at the Martin Luther King Shoreline Park. In fact, the Arroyo Viejo Channel flows directly into a portion of Martin Luther King Park currently being restored to protect threatened bird species.

Given that much of the manure is from exotic mammals and there are a large number of downstream public-use and conservation resource areas, the issue is real. Both humans and aquatic habitats may be at risk, but the issue is omitted and this is surprising. When the manure composting facility was on the Malcolm side of the park near homes, efforts were made to divert outflows into a sewer system leading to the water treatment plant. To date, it is not clear from the report that a similar effort has been made to divert pollution from the parking lot or manure facility in Knowland Arboretum to the treatment plant or to even monitor the problem. State and federal water quality regulations may also apply here. Given that the Zoo intends to continue to rely on this area for parking, and that there is a projected increase in vehicular attendance, this issue is relevant and required to be considered as part of a full Environmental Impact Report on the Amended Master Plan project.

5) Vague Rather than Precise Project Plans

Throughout the hydrological report, it is clear that several aspects of the final treatment plans, calculations, basin sizes, and actual methods are being left to the future. The document neatly outlines the possibilities but in many cases falls short of providing details on the actual project dimensions and details. For example, where water comes into the detention basin, the

amendment mentions there will be a series of step pools. The report does not call for these pools to be rocked and/or vegetated to reduce erosion and head cutting. SCA-Hyrdo-5 under b) calls for seeding with "fast growing annuals" for erosion protection. These should be required to be natives, but this is not fully specified.

With regard to the California exhibit, the project is expected to create about 1 additional acre of impervious surface. However, the report merely lists landscaping swales, roof gardens, and other mitigating measures as possible ways to deal with the increased flows. Instead of a unified project plan, various treatment options are provided. This makes comment difficult.

It is also noted that Simulation Figure 3.1-3b, placed in the Aesthetics section, appears to show an area of water outside the perimeter fence at the center of the photo that does not show in the "Existing view" photo above. This is not now an area where there are existing hydrological features, suggesting there may be plans to place further detention ponds or other constructed drainage sites outside the fence in the parkland area, which would create impacts that do not appear to have been addressed in the MND/A. If so, placement in this location would appear to violate the Resource Conservation Area zoning for this area and could raise other issues with local, state, and federal water regulations. This also appears to be very close to the proposed location of the pedestrian hiking trail. However, the inadequacy of the simulations and the lack of detail about this in the MND/A make it impossible for the public to determine what this feature may be.

HYDROLOGY SUMMARY

Despite providing a comprehensive review of the agencies qualified to oversee the hydrological aspects of the new project, the report has some key areas of inadequacy. First, the report is needlessly opaque in describing how flooding into the Hood Street neighborhood will be treated. The project currently aims to reduce (or perhaps inadvertently maintain) the current level of flooding, since the goal was to deal with any net increase in water flows. However, this is not sufficient—the report should also detail plans to stop flooding of the nearby homes.

Another flaw with the report lies in its inability to address the hydrological implications of the finding of the Alameda Whipsnake, in 2011, near the proposed visitor center and amphitheater. A significant redesign of portions of the hydrological and water quality section must be done to ensure that the newly identified crucial habitat is not degraded or lost.

Third, the report details large-scale plans for undergrounding portions of stream channels and creating concrete or other detention devices particularly in the Vet building area, but does not address other alternatives that would be more ecologically sensitive to preserving creek corridors, creek subsystem habitats, and drainage in what is one of Oakland's most important natural resource areas (See OSCAR).

Fourth, the report lacks a cumulative analysis of zoo activities that impact Arroyo Viejo Creek, especially those implemented since the 1998 agreement which constitute changed conditions. These may be central to the watershed viability and quality of Arroyo Viejo Creek, since many of these such as the new vehicle parking area and open manure composing, occur in the Arboretum, close to the nearby channel of Arroyo Viejo Creek.

Finally, the report gives only vague lists of design alternatives for controlling additional runoff in the California Exhibit, rather than precise project designs. Since the area is now known to be inhabited by the Alameda Whipsnake, this vagueness is even more significant. The report also presents simulations appearing to show constructed hydrological features outside the perimeter fence location, but provides no appropriate analysis.

In conclusion, Arroyo Viejo Creek in Knowland Park is a rarity in the City of Oakland—extending for about a mile above I-580, with large expanses of undisturbed habitat along its main, open channel. Preserving this rare feature, and its watershed in Knowland Park, should be the primary goal and all of the Oakland Creek Ordinance goals should be applied stringently to any new developments therein. The hydrological section should reflect these goals and clearly present ecologically sound alternatives for all hydrological impacts imposed by zoo expansion.

3.8 LAND USE, RECREATION AND PLANNING

In 1998, the original MND found that there would be no land use, recreation, or planning impacts, from the zoo expansion project. (3.8-1). Assuming it was true then – which Friends of Knowland Park disputes – the size, scope, location, and character of the project elements have changed so dramatically in the past 13 years, it could not be true now. New or expanded elements of the project, such as the Aerial Gondola "People-Moving" System, the California "Interpretive" Center (Visitors' Center), the Open Air Amphitheater (Animal Shows & Children's Programs), and the "Overnight Experience" (Family & Group Camping Area), all have implications for land use and the environment.

The criteria for finding that a project will have significant impacts on the environment include:

- A fundamental conflict between adjacent or nearby land uses
- A fundamental conflict with any applicable land use plan, policy, or regulation
- A fundamental conflict with any applicable habitat or natural community conservation plan, or
- Recreational facilities or the construction or expansion of recreational facilities that might have an adverse physical effect on the environment [3.8-11]

It is our opinion that many of these criteria militate against approval, yet the draft MND concludes that there would be no significant impacts from the project, even on a cumulative basis. This conclusion is based on unsupported claims and assertions, as demonstrated in the following comments.

1) Fundamental conflict between adjacent or nearby land uses

Many people in the neighborhoods adjacent to the zoo bought or rented their property in part based on the reasonable expectation that there would be no further development of the parkland open space given the existing legal agreement under which the state transferred Knowland Park to city ownership provided it would remain as open space *in perpetuity*.

Policy I/C4.2 provides that potential nuisances for residential land uses should be minimized. Paradoxically, the proposed Amended Master Plan characterizes Knowland's remaining open space as a "buffer" for nuisances, when the new structures, human activities, and animal exhibits, which will now more closely adjoin the highlands, actually increase the risk of wildfire, as well as noise pollution and light pollution, for adjacent neighborhoods. In addition, increased zoo attendance will increase traffic congestion as well, multiplying the threat to public safety in areas where there are very limited evacuation routes. To the extent that natural water flow and drainage will be further disrupted, and land cut and graded, flooding and landslide risks will also increase. Therefore, the expansion plans are in conflict with this policy.

The residents of adjacent neighborhoods have objected to the expansion for years, and even the existing Approved Master Plan was a compromise to minimize nuisances and safety risks. That agreement was believed to be binding on the City; it now appears that it was only binding on the neighbors. Although the net acreage affected has been reduced slightly, the exhibits and facilities have been moved to a higher elevation, and have been greatly enlarged. This creates a conflict with the letter and spirit of that contract.

The remaining open space in the Park is a separate land use – albeit under the same city ownership -- and ought to be recognized and respected as such. The proximity of such aggressive new development of the zoological park, which will limit historically *free* access in and out of the undeveloped portions of the park and detract from the unfettered experience only true open space can offer, creates a fundamental conflict with its intended use. (OSCAR REC-2.2) As noted above, the transfer of the park from the state to Oakland was premised on the understanding that *no* development other than the original arboretum and "zoological gardens" would occur there. Now, the zoo is instead proposing to protect a small fraction of what is *already* open space, but within the confines of its new perimeter fence, as open space! Given the checkered history of agreements made and broken with respect to Knowland Park and the zoo, the residents of this city can no longer be expected to take such promises at face value.

2) Fundamental conflict with land use plan, policy, or regulation

The draft mitigated MND dedicates a 20-page chart to this criterion (3.8-14 et seq.), and finds that there is not *one* inconsistency between the amended master plan and the hundreds of General Plan policies deemed relevant. This is simply not credible. Many if not all of these policies are discussed elsewhere in these comments in depth, but a few can't be repeated too often.

First, a major objective of OSCAR (CO-7) is to "minimize the loss of native plant communities …and to preserve Oakland's trees *unless there are compelling safety, ecological, public safety, or aesthetic reasons for their removal.*" None of these compelling reasons is present in this case. There are alternatives to the current plan that would permit expansion, yet reduce the number of protected plants and trees that would have to be destroyed for the project.

Second, OSCAR calls for the protection of wildlife. (CO-9) It has been documented that Alameda whipsnakes, Oakland star tulips, bristly leptosiphon, and a variety of special status birds and insects, are present in the disputed land. For this reason, environmental advocacy organizations such as the Sierra Club and the California Native Plant Society have argued, along with Friends of Knowland Park, that full environmental review of the revised project is required to save these creatures.

Third, and most compelling, if land use policies concerning issues like unstable geologic features and slide hazards aren't honored to the letter, it isn't just plants and animals that will be harmed: People will be injured or killed, too. Leaving it to a soils engineer to decide later whether the visitors' center or gondola tower should be 10 or 15 feet to the right or left will not suffice in an active earthquake zone. If this were a high school stadium project, the most exacting standards of review would be applied – the people would not stand for less. The zoo project is first and foremost a project for people, and it is the duty of the Oakland Planning Department to see to it that the people are protected, no matter how popular the proposed development.

3) Fundamental conflict with any applicable habitat or natural community conservation plan

The draft MND declares that buildout according to the amended Master Plan would not conflict with a habitat or conservation plan because *no such plans apply to the Master Plan area*. (3.8-36). This type of simplistic, circular reasoning effectively negates the possibility of any meaningful environmental review of the project.

OSCAR Policy REC-1.3 strongly discourages non-recreational buildings, like the Interpretive Center, in parks. (Also, C0-9.1) The city has assumed that this policy does not apply because

it exempts development in accordance with an approved Master Plan. However, this particular proposed development is not in accordance with an approved Master Plan; in fact, quite the opposite is true: The Zoo is seeking to amend the approved, 1998 Master Plan precisely because the type of development it wants is not in line with that plan.

For example, the interpretive center that is under consideration now is a vastly larger structure than what it was in 1998 – over 34,000 square feet, including a footprint of 13,300 square feet. The previously approved proposal called for a low profile 7500 square-foot one-story building encompassing an area of 0.23 acres. The new proposal calls for a three story building encompassing 0.36 acres. The new proposal also calls for offices that are not needed to house new employees, who would be relocated there from existing office space. This is a serious land use issue. Oakland should not be giving up prime public ridgeline space for private offices. The building should be reduced in size, perhaps by eliminating the third story, which would still allow the wonderful vistas to be seen from it and would reduce its visual impact as well. While the design is intended to be low profile, the building should not protrude above the existing ridgeline at all.

If the expansion project were viewed as a fresh attempt to develop parkland today, the conclusion of the draft MND would have to be very different: There is no "master plan." The Resource Conservation Area designation in Oakland's General Plan, which applies to the undeveloped portions of Knowland Park, "is intended to identity, enhance, and maintain publicly-owned land for the purpose of conserving and appropriately managing undeveloped areas which have high natural resource value, scenic value, or natural hazards which preclude safe development." (3.8-2) The perimeter fence is still an abstraction at this point; its route has yet to be settled. Nevertheless, the zoo wants carte blanche to develop the land inside that arbitrary line – wherever it ends up being. But the reality is that the land on both sides is still undeveloped (3.8-9). Since the lead agency has declared that it is reevaluating the environmental impacts of the project under current guidelines (1-2), its failure to do so in a meaningful manner is unacceptable.

4) Construction or expansion of recreational facilities that might have an adverse physical effect on the environment

Contrary to the conclusion of the draft MND (p. 3.8-38), there are many more recreational features in the proposed amendment to the master plan than were originally contemplated by the city in 1998. The new visitor center, discussed above, and the new people-mover and amphitheater, are just a few of the elements that will seriously disturb natural landforms and materially alter views and ridgelines. (OS-9.1) The gondola ride will be built on eight towers from 40 to 60 feet tall -- towers which will rest on concrete pads that are so large, they will have to be airlifted in. And, while the buildout of the amended Master Plan technically would not "obstruct" panoramic vistas of San Francisco Bay and the city skylines (OS-10.1), these

structures will be directly in the line of sight to the Bay from the upper knoll. (OS-10.1) The airbrushed simulations provided by the Zoological Society do not do the new view justice.

CONCLUSION

While no one disputes that more visitors attend the Zoo yearly than come to walk, hike, and picnic in Knowland Park, the "park use survey" (p. 3.8-10) is misleading and nonscientific. Conducted during the rainy/muddiest season of the year with no formal methodology, it is scientifically inadequate to support any useful conclusions about park use. The description of usage being "limited to a few hikers or dog walkers" is not only dismissive, but also somewhat disingenuous, since the Zoo staff explicitly tells people who inquire at the gate that the area is not open for hiking, the park, inexplicably, is not listed on the Oakland parks website, and there are no benches or tables for picnicking, etc. Even so, Knowland Park is also used by birders, orienteering events, naturalists, and children exploring the rock formations and seasonal pools, and among these people, it is very highly prized.

More important, the sheer number of users of open space is not the best measure of its value – quite the contrary. The fact that this urban park is not crowded, noisy, or commercialized is what makes it so worthy of continued protection. The zoo has a vital role to play in our society, and improving it, and encouraging more people to attend, are important goals, but they are goals that can be achieved without sacrificing Knowland Park's other blessings, simply by applying better planning principles.

3.9 NOISE

The MND/A for the proposed Amended Master Plan project does not adequately explain noise level monitoring and mitigation. It leaves out important areas from which noise levels should be appraised given the proposed siting of the project.

The existing zoo is nestled in a basin at the lower end of Knowland Park near I-580. The undeveloped reaches of the Park to the north of the proposed site are presently shielded from the noise generated by the existing zoo, as well as most traffic noise, by the intervening ridge of hills and trees. As it is now, the Park's open space provides Oakland residents who visit the park with an easy escape from the noise and congestion that pervade much of the City due to the existing freeways. People can walk in the woods, or watch the sun set over the Bay, in relative peace and quiet. The previous Approved Master Plan, as noted under Aesthetics, had minimal impact on the area on the east side of the ridgeline because the majority of exhibits were located on the side closer to the existing Zoo. Under the proposed Amended Master Plan, this would radically change: Because the majority of new animal exhibits, walkways, animal houses, play areas, etc. would extend well past the ridgeline toward the east, all the noise generated by animals, crowds, outdoor classes, and activities for children will carry into

the park highlands unimpeded. These noises are likely to be sudden, erratic, and occasionally startling.

According to the draft MND/A, the *only* "primary noise sources" *in the vicinity* of the project at this time are traffic and existing zoo operations. (Vol. 1, p. 3.9-9.) With the expansion, new sources of noise would include:

1. Animals such as bears, big cats, wolves, birds of prey
2. Elevated Viewing Walkways
3. Aerial Gondola "People-Moving" System
4. California "Interpretive" Center (Visitors' Center)
5. "Small Exhibit Activity Zone" (Children's Play Area)
6. "Interpretive Kiosk" (Open, shaded, interactive Exhibit Structure)
7. "Botanical Exhibit (Interpretive Gardening Center)
8. Open Air Amphitheater (Animal Shows & Children's Programs)
9. "Overnight Experience" (Family & Group Camping Area)

The draft MND/A nevertheless concludes that the noise produced by this project would not have a significant impact on the tranquil environment in the Park. (Vol. 1, p. 3.9-29.) The evidence supporting that conclusion is incomplete, ambiguous, and unsupported.

For example, under CEQA, a project that results in a 5 dBA increase in ambient noise levels when compared with preexisting levels is deemed to have a significant impact. (Vol. 1, p. 3.9-16, item (h).) The draft MND/A's finding that it would not do so in this case (Vol. 1, p. 3.9-26) is based on measurements taken in three locations *to the south* of the project near the existing zoo and adjacent residential areas – areas near the freeway that are already developed and subject to higher baseline levels of noise (Vol. 1, table 3.9-4, fig. 3.9-2). As a result, those measurements cannot provide an accurate baseline for assessing whether there would be a significant *increase* in the ambient noise level in the undeveloped portion of the Park due to the noise generated by the project.

In addition, CEQA provides that the project has a significant impact if it violates the Oakland Noise Ordinance with respect to operational noise. (Vol. 1, p. 3.9-14, item (b).) The draft MND finds that the project is compliant without ever defining "operational noise": *"The combined daily operations resulting from the buildout of the amended Master Plan, including the Veterinary Medical Hospital, gondola people-moving system, California Exhibit, and*

service road, were evaluated to determine daily operational noise impacts." [Vol. 1, p. 3.9-17.]

Is one to assume that "daily operations" are confined to things like greasing the cables on the gondola and shoveling manure in the bison enclosure? Or do daily operational noise impacts also include noises like an elephant trumpeting when it awakens suddenly from anesthesia at the animal hospital or a child screaming because he dropped his stuffed giraffe getting into the gondola? These are important distinctions, and they could be determinative: The daytime operational noise limit under the Oakland Noise Ordinance is 60 dBA. (Vol. 1, p. 3.0-17; table 3.9-1, p. 3.9-7.) The highest measurement taken for the purpose of "modeling" future noise emissions was 59.8 dBA at a receptor along the proposed public access path right outside the new perimeter fence. (Vol. 1, p. 3.9-14; see fig. 3.9-3, table 3.9-6 [additional "operational noise data" was supposed to be supplied in Vol. 2, App. J-1, which appears to be a traffic study].) This constitutes a slim margin, raising serious questions about whether the project's noise impacts have been adequately evaluated.

A further criterion for significant impact under CEQA is whether the project generates noise levels exceeding standards established in the Oakland General Plan. (Vol. 1, p. 3.9-14.) Attempting to apply this standard, the draft MND finds that the project would not conflict with Oakland's land use/noise compatibility guidelines. (Vol. 1, p. 3.9-16; see also 3.9-28.) Two land use policies are cited:

> *"Policy 1: Ensure the compatibility of . . . proposed development projects not only with neighboring land uses but also with their surrounding noise environment,"*

And,

> *"Policy 3: Reduce the community's exposure to noise by minimizing the noise levels that are received by Oakland residents and others in the City." [Vol. 1, table 3.8-1, p. 3.8-31; see also p. 3.9-7.]*

The draft MND reasons that the project is *consistent* with these policies because "traffic and other operational noise from the buildout of the amended Master Plan would not result in conflicts with the land use/noise compatibility guidelines. (Vol. 1, table 3.8-1, p. 3.8-31; see pp. 3.9-16 – 17.) This assumes that the open space in Knowland Park is the same land use as the Zoo, and that visitors to that space may be subjected to the same level of noise that zoo patrons can. These assumptions are erroneous.

According to the draft MND, the community may "normally" be exposed to up to 70 dBA at a playground or neighborhood park like the Zoo. (Vol. 1, fig. 3.9-1; see p. 3.9-28, (i).) The lead agency has determined that the project will not expose patrons of the Zoo to more than that. (See Vol. 1, p. 3.9-16 (a).) However, the operational noise limit for "civic uses," such as the remaining open space in Knowland Park, is only <u>60 dBA.</u> (Vol. 1, table 3.9-1, p. 3.9-7.)

Therefore, if the zoo were to emit more than 60 dBA into the open space in Knowland Park, it would certainly violate the land use policies cited above.

Moreover, the community noise exposure compatibility guidelines are just that – guidelines. They lay out the parameters for what is "normally" acceptable, "conditionally" acceptable, and so forth. (Vol. 1, fig. 3.9-1.) But the noise element in the General Plan "recognizes that some land uses are more sensitive to ambient noise levels than others, due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the type of activities typically involved." (Vol. 1, para. 3.9.3.1, p. 3.9-5.) Knowland Park has been singled out for special praise among all of Oakland's parks, and this particular "sensitive receptor" (see Vol. 1, para. 3.9.4, p. 3.9-11) deserves an even higher level of protection than the strict word of the ordinances and regulations might suggest, particularly given the identified presence of special status species and multiple types of other wildlife that use the park as habitat and hunting grounds.

The undeveloped land in Knowland Park is not the same land use as the zoo, but a "neighboring land use." Therefore, if the city did not minimize the noise levels emitted by the project to protect Knowland, then that would create a *fundamental conflict* with adjacent land uses -- in other words, *a significant impact*. (See Vol. 1, p. 3.8-12.)

The proposed mitigation measures require monitoring of noise during construction and operations under SCA-NOISE-4. However, who will monitor the noise, how often, how noise levels will be reported back to Planning and Zoning or other agencies are not specified.

In light of the inadequacies in the lead agency's environmental review of various noise elements of the project, its conclusion as to the cumulative impacts (Vol. 1, pp. 3.9-28 – 29) is also unsustainable.

3.10 PUBLIC SERVICES & UTILITIES

The 1998 Master Plan addresses Public Services and Utilities in 6 paragraphs on 2 pages in two questions:

- The first, #29 on page 48, asks if the project will have an adverse effect or place new demands on fire, solid waste disposal, police, schools, or parks, indicates that it will have a "less than significant impact," and addresses the matter in 4 paragraphs.
- The second, #30 on page 49 asks if the project will impose a burden on existing roads, gas, water, electricity, and sewers, indicates that it will have a "less than significant impact," and addresses the matter in 2 paragraphs.

In contrast, the MND/A document devotes 44 pages to this topic, and each resource is addressed with abundant, and sometimes redundant, information in several sections. The

presentation is inclusive of some new developments in the past decade, such as the potential of water rationing and inadequate wastewater treatment during wet weather events, but the project's impact on public services and utilities is not presumed to exceed what was in the 1988 Master Plan and it concludes, again, that the project's impact is "less than significant".

What is most striking about this section is what is missing.

In this age of alternative energy and sustainable building innovation, there is no attempt to decrease the project's dependence on utilities. With the exception of composting toilets at the campsites and the intent to design the Veterinary Hospital according to LEED specifications, there is no indication of why the California Exhibit is not being designed or built according to LEED standards. There is no attempt to incorporate any alternative or sustainable means to address water needs, wastewater, storm drainage, or electricity. Principles of green building that were in their infancy in 1998 but are widely understood in 2011 have not been incorporated. In essence, it is an "old school" approach for a non-sustainable public facility dependent on utilities, and it puts all of its faith in EBMUD or PG&E to provide present and future conservation direction. However, in addition to the long term utility costs savings to be realized from green building, such building limits consumption of natural resources, in keeping with the conservation goals of the project.

3.10.1 PRIOR MND ANALYSIS AND CONCLUSIONS – addressed above

3.10.2 STANDARD CONDITIONS OF APPROVAL

3.10.3 UPDATED REGULATORY SETTING – discussed in section 3.10.5 if relevant

3.10.4 EXISTING CONDITIONS – discussed in section 3.10.5 if relevant

3.10.5 SIGNIFICANCE CRITERIA AND IMPACT ASSESSMENT—see below

3.10.6 CUMULATIVE IMPACTS

Section 3.10.5 is the counterpart to the 2 pages in the Approved Master Plan and it expands the initial 2 questions asked to 9. This section and the one below are broken down to address a particular service or utility and, in some instances, much of the same information is repeated. In some instances, this way of presenting the information obscures assessing it. For this reason, comments have been combined to address the current and future outlook of each service and utility that is addressed.

a) <u>Provide new or physically altered government facilities, adverse impacts including environmental impact of construction to maintain acceptable fire or police protection</u>

This summary of this section draws the conclusion that what is now proposed does not incur nor "create a new significant impact or increase the severity of impact." However, it does not address the environmental impact of the construction and maintenance of a new emergency

access road it has proposed across remaining protected parkland, or the extent of vegetation that will need to be removed around the California Exhibit to comply with current fire regulations.

Fire Protection Services – Emergency Access

The environmental impacts of altering an existing FD Vehicle Access road off Snowdown Avenue by (1) widening it to 20 feet across (2) placing turnouts every 300 feet along its 1450 foot length and (3) surfacing it in gravel were not addressed in the Approved Master Plan. The document states that these changes "improve" what was initially approved, but the document does not address its environmental impact.

In contrast to the existing, narrower dirt road, what is proposed will increase the square footage of this road by over an acre (50,850 calculated from these figures and a 50' turning radius for a fire truck). Additionally, a gravel road will be noticeably visible and thereby disrupt the appearance of the parkland, as discussed above in more detail under Aesthetics. Moreover, it will necessitate ongoing maintenance, which will have additional impacts.

Because it was not in the 1998 Master Plan, this feature was not addressed in any of the discussions between the Zoo and the residents who expressed concern about the impact of the project. Although arguably it improves emergency access, it constitutes an addition that significantly alters the appearance of the Knowland Park areas adjacent to the proposed facility and may have other environmental impacts not addressed in the MND/A, including those discussed under Biological Resources and Hazards.

Fire Protection Services – Risk Reduction Measures

This section does not state how addressing the City of Oakland 2004 Wildfire Prevention Assessment District (mentioned in 3.10.3.2) will impact the area. Requiring a 30' to 100' defensible space around all buildings could substantially increase the footprint of the California Exhibit as well as affect Alameda Whipsnake habitat.

b) Exceed wastewater treatment requirements of the San Francisco RWQCB

e) Result in a determination by the wastewater treatment provider that it does not have adequate capacity to serve the project's projected demand

These sections are addressed collectively, as the same concerns regarding sewer infrastructure improvements are raised, which is further discussed at length in sections 3.10.4.4 and 3.10.6.4. The Veterinary Medical Hospital (VMH) and California Exhibit (CE) are estimated to generate 8.1 million gallons of wastewater per year. The main issue of concern is that the RWQCB has inadequate capacity to treat EBMUD discharges during wet weather events. As stated on p 3.10-25, "the issue of wet weather capacity has been particularly critical since 2009, when the RWQCB issued an order prohibiting future discharges from EBMUD's wet

weather facilities." It is concluded that the project's impact on this situation will be "less than significant".

The determination that impact of wastewater during wet weather is "less than significant" is based on the premise that, in addition to the Zoo's compliance with EBMUD's Sewer System Management Plan, that other future construction projects that are downstream of the Zoo's waste will take place and similarly implement EBMUD's plan. It is uncertain whether or not there will be future projects given that this part of Oakland has been developed for many years, and it is questionable whether any large redevelopment projects will occur in the future for a variety of reasons, not the least of which is the state of California's economy. Consequently, there is no guarantee that existing EBMUD's main wastewater treatment plant will be able to accommodate the wastewater that the proposed VMH and CE will generate during the wet season. Since the time of the 1998 Mitigated Negative Declaration there have been substantial advances in natural wastewater treatment systems, and that the Amended plan doesn't propose any is another missed opportunity to lessen the project's impact on utilities and, ultimately, the San Francisco Bay.

c) Require or result in construction of new storm water drainage facilities & construction impacts

d) Exceed water supplies available

The conclusion drawn is that existing EBMUD water entitlements and resources are adequate to supply it with the 7 million gallons/year of domestic water that it needs, and that the impact is less than significant even though it acknowledges that during dry years its needs cannot be satisfied.

In section 3.10.6 the proposed amendment acknowledges that future water supplies may be inadequate. The vision for addressing these issues when they occur is merely the stated intent to follow whatever water conservation guidelines EBMUD provides. The approach advocated is a missed opportunity for incorporating a water reclamation system, such as rainwater collection, to address a serious, identified resource conservation need with contemporary building technology. The California Exhibit could get LEED points for implementing such a system if the plan were to have it be a LEED certified building.

f) Be served by a landfill with insufficient permitted capacity to accommodate it

g) Violate applicable federal, state, and local statutes and regulations related to solid waste

h) Violate applicable federal, state and local statutes and regulations relating to energy standards

i) Exceed energy provider's supply

The MND/A states that PG&E can meet the needs of the proposed Amended Master Plan

project, and it anticipates that its ongoing needs are insured because PG&E is looking to use more renewable resources. There is no mention of using solar panels or any other means to generate its own electricity, a feature which could further reduce its impacts on Global Climate Change and would be consistent with the Zoo's stated emphasis on conservation education.

3.11 TRANSPORTATION AND CIRCULATION

The traffic section is incomplete and misleading for the following reasons:

- Several conclusions in the traffic study are based on untested assumptions, rather than data. The MND investigators assume, for example, that signalization installed at certain intersections after 1998 have improved traffic flows in the intervening time, without verification at certain peak times. This untested assumption is then integrated into the conclusion that the new project will result in no significant impacts.

- There is no analysis of the congestion that occurs between intersections #1 and #2 generated by cumulative impact of changes implemented since the 1998 agreement.

- There is a failure to analyze the cumulative impacts to be generated by other nearby large development projects and a possible new zoo panda bear addition.

Each of these issues, primarily resulting from omission in the study design, will be described in greater detail below.

1) Misleading Assumptions and Omissions Regarding I-580/Golf Links Road Intersections

Eastbound Off-Ramp

The #3 intersection of Golf Links Road/ I-580 Eastbound Off-Ramp/ 98th Avenue was signalized after the 1998 study with the expectation that it would then operate at acceptable levels during the PM peak hour (3.11-45). For the report authors, this expectation is sufficient to omit re-study of the weekend midday peak hour traffic at this intersection. Succinctly, "[w]ith signalization and the completion of the improvements in progress, this intersection [#3] was expected to operate at acceptable LOS C during the PM peak hour and was not analyzed during the weekend midday peak hour; therefore, no mitigation measure was recommended" (3.11-45). And again, "Neither the proposed Master Plan amendment nor the approved Master Plan would contribute considerably to a significant cumulative impact; therefore no mitigation measures are required" (3.11-46).

Yet, as is well known to drivers in the area, some of whom have repeatedly raised this issue to city planners, the situation has deteriorated considerably since the 1990s.

Signalization in late 1990s and a new student carpool pickup area on 98th Avenue near Bishop O'Dowd are both new factors in the intersection that may be leading to periodic congestion. Indeed, at certain peak times, traffic spills beyond the exit ramp onto active I-580 freeway lanes and onto the freeway shoulder. Given poor visibility, existing freeway configuration, and fast moving traffic, accidents occur. Public health and safety are at risk. The problem is more serious than mere convenience.

Westbound Off-Ramp

A second example can be found in the discussion of the Golf Links Road/I-580 Westbound Off-Ramp. Again, it was not analyzed in the current MND/A during the weekday AM or weekend midday peak hours because of the signalization and the completion of the improvements after 1998 were expected to produce acceptable LOS C during the weekday PM peak hour. (3.ll-48). Nonetheless, it is argued that the new proposed Master Plan would not contribute to a significant cumulative impact and therefore no mitigation measures are required.

In fact, since the 1990s backups onto Highway I-580 off-ramp have been noticeably aggravated by the new signalization and increases in zoo entry vehicles. At certain times, the backup extends beyond the off-ramp onto the active Highway I-580 vehicle lanes and the freeway shoulder. Again, public health and safety are involved, and that the additional project-generated traffic is likely to aggravate the problem.

In summary, the Mitigated Negative Declaration fails to evaluate impacts of signalization since 1998 during peak times at the off-ramps of Highway I-580 in both the east- and west-bound directions. Without study, the public is unable to verify what appears to be increasing congestion at certain intersections following the installation of the signal lights.

2) Failure to Study the Cumulative Impacts of Intersections #1 and #2

Some of the intersections studied are so geographically close that they must be analyzed cumulatively. Yet the study does not fully analyze these cumulative interactions. The best example of this problem can be found in the area between intersections #1 and #2 in both the eastbound and westbound traffic directions. Here is a brief overview.

Eastbound Vehicles on Golf Links Road from off Highway I-580 Off-Ramp

Vehicles exiting from the I-580 freeway westbound (intersection #2) are confined to the right lane if drivers intend to move east along Golf Links Road toward the zoo entry. Such vehicles are conflated for a short distance into a single lane due to striping. At peak times, back up of traffic here is so extreme that only a handful of vehicles can pass through the

intersection during an entire signal sequence. Much of the sporadic back up appears to result from vehicles attempting to enter the zoo (intersection # 1).

Frustrated local drivers are often cross the double line into on-coming traffic in order to circumnavigate the backed up cue at the zoo entry. This is true for drivers heading to Mountain Boulevard as well as those headed east up Golf Links Road. Some drivers that are headed onto Golf Links Road also ignore the striping that confines them to the same lane as drivers entering the zoo, inappropriately driving in the left-turning lanes designed for Mountain Boulevard instead. Confused drivers heading down toward the freeway from Golf Links Road, heading into or out of the zoo entrance, or those entering or exiting the nearby gas station, compound the problems even more.

As a result, accidents and near misses in this area are not uncommon. Changes to the signal timing, striping or other traffic control techniques might help alleviate the problems here. But without comprehensive, cumulative studies as should be included in the current MND, public safety is at risk from the projected increases in vehicular traffic associated with the proposed Amended Master Plan. The MND/A study fails to address the fundamental problems of one of the most poorly congested intersections, which despite being signalized since 1998, is not functioning well.

Vehicles Westbound on Golf Links Road between Intersections #1 and #2

In addition to studying eastbound vehicles, the cumulative interaction of westbound vehicles at Intersection # 1 and #2 reveal significant issues that have been omitted from the current MND. Again, the situation here changed after 1998 due to new signalization and the creation of a new zoo exit onto Golf Links Road.

In the westbound direction, an extremely small area (hereafter referred to as the "bottleneck") is the primary problem. The bottleneck area can absorb only 10 vehicles maximum at a time, and because it is signalized, the cue can reach capacity easily between lights. The small capacity of the bottleneck can also be reduced by 50% when a bus lingers at the curbside bus stop, or when drivers, in the striping on the roadway assume there is only one lane.

Traffic flowing into the bottleneck comes from a variety of sources. Vehicles entering from Mountain Boulevard and Golf Links Road, traffic exiting the zoo, and those entering or exiting from the adjacent gas station can all converge in this small area. And when the light turns, drivers often compete aggressively for space. Vehicles from Mountain Boulevard can take preference by making a right turn from the stop sign, while vehicles from Golf Links Road are somewhat restricted, and vehicles exiting the zoo are nearly unable to fill the queue due to cars blocking their path from two or more directions. Cross-traffic from the gas station makes the queue even more unpredictable.

Backups are thus common during peak times on upper Golf Links Road and inside the entry gate of the zoo. However the current MND fails to adequately address this bottleneck and how the addition of vehicles resulting from the proposed Amended Master Plan will be accommodated.

In short, the complex, existing cumulative interactions between intersections #1 and # 2 have not been fully addressed in the report, and with additional vehicles associated with the new project, the problems will undoubtedly worsen.

3) Failure to Analyze Cumulative Traffic from Other Large Projects & Possible New Zoo Exhibits

The MND/A fails to address the potential for additional and cumulative traffic impacts from other large developing projects in the area, assuming that none are relevant to the current study. Nor does the report assess the potential impact of new zoo animals in existing pens, such as pandas from China, which would result in a sudden increase in new visitors.

Former Oak Knoll Naval Hospital Site

The former 160+ acre Oak Knoll Naval Hospital property (Mountain and Keller Avenue), when developed, could add substantial traffic to several of the identified intersections and roadways. When build out is complete, it is estimated that about half the traffic generated by the development will use the Golf Links/ I-580 intersection and half will use the Keller Avenue/I-580 intersection.

The current proposed largely residential redevelopment plan for the site proposes 960 new homes (several hundred more than were planned in the 1990s), with additional traffic being generated by a proposed commercial center, and public facilities such as a new park and possible new library/senior center. The current study, however, omits this new information entirely.

In addition, the amount of traffic generated by the Oak Knoll site has been uncharacteristically low in the past decade when the California Exhibit and other associated zoo expansion ideas have been most fully vetted. From the 1940s through the early 1990s, the Oak Knoll base generated a high volume of vehicles, and this number dropped quickly with the initial announcement of base closure in the early 1990, and again with its complete closure in the mid 1990s.

Holy Redeemer Site

Another potentially significant development project omitted from the study is the 25-acre Holy Redeemer property on Golf Links Road between I-580 and MacArthur Boulevard. Although details about how this property will be developed are still underway, it is likely

that the small church-associated population that occupied the site will be replaced by new residential or educational facilities, and other uses. When the 1998 agreement was made, the Holy Redeemer site was not available for possible redevelopment. Conditions have changed, and should be evaluated more comprehensively in a full EIR.

Project to Bring Pandas to the Oakland Zoo

It is curious that the report fails to mention the fact that the zoo is currently negotiating with the Chinese authorities to bring panda bears to the Oakland zoo after completing a $1 million facility for them. Widely reported in the media, the acquisition of pandas is projected to bring 1.3 million more visitors over a 10 year period [http://www.highbeam.com/doc/1P2-7033087.html] , yet the potential for significant new traffic that would result from this addition was not examined in the MND/A.

Misleading information on impact of traffic on overnight camping

Table 3.11-6 (MND/A p. 3.11-18) shows the vehicle trips generated by the overnight camping area. It is not clear how these vehicles would access the proposed camping location. Would they use the proposed paved service road or would some of these trips be made via the proposed Snowdown emergency vehicle access road? This Table shows about 19 trips during the week. If there's little camping during the week, as claimed in the Project Description, what accounts for these higher numbers of vehicles on weekdays? The weekend, when most of the camping presumably would occur, has only 4 trips. Why? Also, from this table it looks like most of the vehicle traffic without accounting for the California Exhibit is from the overnight camping area. The overnight camping experience seems to contribute significantly to the increased traffic. How? This is not specified.

Misleading information about increased attendance and vehicle trips

The Zoo has repeatedly made estimates at public meetings that are inconsistent with the relatively low estimates used to calculate vehicle trips and environmental impact. Further, the MND/A breakdown of vehicle trips appears underestimated. Table 3.11-6 shows that the Vet Hospital would, as the report claims, "generate at most one additional trip during the weekday am and pm peak hour". This seems unrealistically low, given the Zoo's stated plans plans for UC Davis veterinary science program teaching and residency programs, etc.

Absence of adequate explanation for lack of additional parking areas in plan

Friends of Knowland Park believes a re-analysis of the estimates for vehicles is needed because these projections appear unrealistically low, but even if one accepts the estimates

as valid, the project will generate large amounts of additional vehicles coming to the site. However, there are no provisions made for additional parking areas, suggesting that frustrated drivers may go into neighborhood streets seeking parking. This is not addressed in the MND/A at all. Failing this, and in the absence of parking lots or structures that could be enlarged within the existing Zoo, one is forced to anticipate that the Zoo may anticipate later seeking approval to place parking areas near the proposed emergency access road or elsewhere in the remaining parkland, creating additional environmental concerns.

SUMMARY

Thus the traffic section is incomplete and/or misleading in multiple respects:

- The transportation and circulation analysis fails to analyze how certain intersections signalization since 1998 have been impacted during peak hours based on the assumption that signalization resolved the pre-existing problems.

- The report also fails to analyze cumulative problems that have come to characterize the highly congested intersections #1 and #2.

- Similarly, large developments such Oak Knoll and Holy Redeemer redevelopment or a new panda exhibit, are omitted although each would likely increase traffic and congestion.

- The disproportionate estimated contribution of the proposed Overnight Experience to the increase in weekday vehicle trips is unexplained.

- The MND/A fails to adequately explain inconsistencies and questionable assumptions in the vehicle trip estimates and does not account sufficiently for the failure to include additional parking areas for the estimated increase in vehicles.

C. OTHER ISSUES

C.1 PERIMETER FENCE LINE

Inconsistencies and Omissions

The current study is misleading and confusing in its treatment of northern boundary of the perimeter fence near Knowland Arboretum and Golf Links Road. The text makes references to an “existing perimeter fence” that appears to be inaccurately and inconsistently portrayed on some of the accompanying maps. These problems suggest that the exact location for the perimeter fence has been subject to considerable change through time.

According to the document (2-22), "a fence would extend around the perimeter of the California Exhibit. The perimeter fence would be constructed of black-coated cyclone fencing material with barbed wire on top and would be approximately eight feet high…. The fence would connect with the existing perimeter fence that currently surrounds the zoo. (The existing fence extends along the northern zoo boundary at Golf Links Road and along the southern zoo boundary near the zoo's main parking lot."

The location of the proposed fence, however, is not clear in the accompanying maps. The MND/A presents an array of contradictory maps and vague definitions of the northern boundary of the new perimeter fence as well as depictions of what is considered to the "existing perimeter fence" or "existing fence."

Inconsistent and Contradictory Mapping of the Boundary

Two important maps (Figure 2-20 and 2-21) show different information on the 1998 approved plan. Figure 2-20 shows the perimeter fence as extending to Golf Links Road, and presents a critical segment of it in a *blue color*, a selection that is not explained in the legend. However, the map on the following page of the document (Figure 2-21) shows the perimeter fence alignment in two different colors: the blue section shows a fence line following the northern edge of the new upland exhibits, but the segment from the bison/elk exhibit to Golf Links Road is shown *in gray rather than blue*. According to the legend for this map, the *blue color* indicates what was approved in the 1998 Master Plan. Figure 2-21 thus suggests that the boundary that was approved does not extend to Golf Links Road, while Figure 2-20 is ambiguous because it lacks a legend.

As if this weren't enough to confuse the public, other maps in the document show a <u>different alignment</u> of the northern boundary of the perimeter fence. Several maps (Figure 2-3, Figure 2-4, Figure 3.11-1 through 3.11-12, Figure 3.9.3) show the new perimeter fence, in green, about 400-500 feet south of Golf Links Road. This alignment makes it somewhat closer to the existing bison/elk exhibit fencing or to the existing fencing at the Center for Science and Environmental Education.

What are the current conditions?

First, there is *no fence whatsoever* on Golf Links Road between Anza Avenue and Calafia Avenue, although Figure 2-20 and 2-21 seem to indicate such. Second, there is a short fence on Golf Links Road between Calafia Avenue and Mountain Boulevard but it is certainly not what would normally be regarded as a "the existing perimeter fence" around the zoo. It consists of a freestanding segment of 4-foot, dilapidated segment that connects only with the enclosure of the Arroyo Viejo restoration area. Another light mesh short fence nearby appears to prohibit goats from entering the Arroyo Viejo habitat. Indeed, none of the above-described fencing connects, in any way, with any of the existing animal exhibits at the Oakland Zoo.

Actually, Knowland Arboretum separates this area of segmented fencing from the formal entry areas of the zoo. It is thus difficult to conceive of Golf Links Road as being part of the "existing fence" or "existing perimeter fence" boundary line.

In fact, the "existing perimeter fence" defined in terms of zoo crowd control and public safety lies to the south of Knowland Arboretum near the Science and Environmental Education Center. Here, a high fence defines the area of the zoo where pedestrians must pay an entry fee—and by most reasonable standards, this would be considered to represent the existing perimeter fence at the zoo (an idea supported by Figures 3.11 through 3.11-12). The fencing in this area also connects seamlessly to fences around the Children's Petting Zoo and other formal animal exhibits.

Missing Analysis

If the fence alignment on the north is conceived as connecting to Golf Links Road at the Golf Links/Anza Avenue intersection and extending from there to Golf Links Road at Mountain Boulevard, then several additional issues should be addressed. These are described below.

(1) Knowland Arboretum

Currently, the Arboretum is available to pedestrians without paid admission. A perimeter fence along Golf Links Road would alter access. In addition, questions about future intent of the Arboretum resources would need to be vetted. Currently the zoo appears to be adopting a utilitarian model, using the site for its support services. The Arboretum is now used as an overflow lawn parking area that exposes the trees to oil, gas, and brakepad drippings and residues, and soil compaction from the weight of parked vehicles. It is also used as an extensive manure composting facility that may threaten the water quality of nearby Arroyo Viejo. If the Arboretum trees and other special features are to be preserved, then a clear conservation plan for future zoo management is needed. This does not exist as far as is known in the current MND/A or other documents presented.

(2) Existing Fire Gate and Fire Road

The proposed fence line, if extended along Golf Links Road from Mountain Boulevard to Anza Avenue, will cut off an important existing fire road access gate, and the fire road it serves. This fire road is about ½ mile in length, and lies entirely in Knowland Park along the wooded canyon parallel to, but not visible from Golf Links Road. One gate is at Golf Links Road/Calafia Avenue and the other is at Golf Links Road/Elysian Fields Drive.

In the past two decades, the fire department has used this roadway to suppress a grass fire. Should the 8' perimeter fence be built, the relocation of the fire road entry gate, and perhaps the fire road itself, may prove problematic. The hillside becomes considerably steeper toward

Burgos Road and may be prohibitive for access by large fire trucks. Significantly, there is no discussion of the cut-off of the Fire Road gate or the need for a new alignment in the current MND/A (3.10-10 to 3.10-11)

(3) Aesthetic Impacts

Adding a new 8' fence along Golf Links Road from Anza Avenue to Calafia Avenue, or even to Mountain Boulevard, would greatly detract from the visual aesthetics of residential housing along the other side of Golf Links Road and for drivers along this stretch of what Oakland has long stipulated to be a scenic roadway. No adequate discussion is presented in the report.

(4) Loss of Public Access

The grassy flatland area south of Golf Links Road from Anza Avenue to Calafia Avenue is now popular with Knowland Park users including walkers, runners and hikers. A large portion of this area will be lost to public access with fencing, without a clear opportunity for the public to provide comment.

Summary

In conclusion, the document itself is flawed and does not provide a clear description of the perimeter fence boundary or its potential environmental impacts, especially for the northern segment. Conflicting, confusing and seemingly erroneous information contained in the document makes it impossible for the public to appropriately comment.

C.2 PROPOSED AERIAL GONDOLA RIDE

The proposed aerial gondola ride was not part of the previously approved Master Plan and thus is a new and major change to the project. A full EIR should be required to more fully assess the impacts of this feature. Under CEQA guidelines, there is a "fair argument" that the zoo expansion may have significant adverse environmental impacts that may not be fully mitigated to a less than significant level with the proposed measures. Section 21080 of the CEQA guidelines indicates that "substantial evidence" includes "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." Substantial evidence suggests that this feature may have more impacts that have not been fully addressed and should call for full consideration of other alternatives besides the loop road alternative within the context of various design configurations.

While the revised Master Plan proposal MND/Addendum assumes that the aerial gondola ride will reduce overall impact by eliminating the need for constructing the loop road and reducing vehicular traffic to the remote portions of the expansion site, and this is possible, the

MND/Addendum does not adequately deal with the multiple new site specific potential impacts of this feature and makes unwarranted assumptions about its environmental footprint.

The construction of the gondola towers on steeply sloping ground is a concern not fully addressed in the MND/Addendum. A full EIR should be required to ensure that this is the best feasible solution and is needed for this expansion. It is important to note that should a different configuration of exhibits be undertaken, other people moving systems might be feasible to use that would raise fewer environmental concerns. In 2008, operations of a gondola in Taiwan were suspended after serious erosion occurred beneath a supporting pillar following rainstorms [*http://www.taiwanderful.net/guides/maokong-gondola*]. The project had not had a full EIR prepared and construction had damaged vegetation, adding to soil instability in a context of inadequate pre-approval review of the engineering challenges associated with construction.

Aesthetically, the gondola will obviously have a greater impact on views from multiple locations, as it will be more visible from the scenic portions of I-580, Golf Links Road, which is a scenic road by Oakland standards, and other areas than the perimeter road that was part of the Approved Master Plan. Towers of up to 62 feet marching up the slope to a much higher profile and a larger building than called for in the Master Plan will extend above the trees; multiple gondola cars holding groups of people will be visible as well from these scenic routes. The Scenic Highways element of the Oakland General Plan states in relation to I-580 that "Visual intrusions within the scenic corridor should be removed, converted, buffered or screened from the motorist's view." It is unclear how this could be done with such a structure. Painting cars in 'earth tone colors' is insufficient.

It is also unclear whether from the gondolas the windows and yards of adjacent homes of the park will be visible, which could raise privacy concerns for neighboring homes.

The I-580 simulations do not include views coming from the south. Given that it is from this direction that the gondola structure would be more visible, this is a serious omission.

We have been unable to find in the report details as to the specific heights of each supporting pillar, which would help in evaluating the visual impacts.

The simulations do not appear to show the gondola in proportion to its size, and include a structure that is not identified in the proposal (Fig 3.1-4a, center photo).

The locations of the simulations leave out important perspectives from which the gondola would be visible, including from the homes nearer to the Zoo than the Hood Street site and the view from I-580 traveling toward and past the Zoo from the south.

There are no simulations of the loop road from the same perspective to compare with the simulations of the proposed revised project; thus it is impossible to visually compare their aesthetic impacts from the various perspectives.

The possibility for ground vibrations from the gondola affecting endangered species such as the Alameda Whipsnake, does not appear to have been addressed. The report does not address any potential effects on raptors and other birds that use this area for habitat and hunting presently. Neither are its potential effects on plant communities fully analyzed in this report.

The site-specific geotechnical assessment of each individual gondola tower construction site do not appear to be called for until after the project is approved. However, if the sites identified for gondola towers are unsuitable for reasons of land instability, shaking, liquefaction, etc. this could undermine the entire proposal or require additional measures that greatly increase the environmental impact of constructing it. In the Taiwan case discussed above, towers had to be relocated, creating additional impacts.

The noise impacts of the gondola have also not been sufficiently considered. The environmental report does not make clear whether the gondola cars will be completely enclosed with glass or plastic materials or whether they may have areas partially open to the air, in which case one would need to address noise from people screaming at animals, across to others in different cars, tossing of litter from cars, etc.

The environmental report says there will be "no night lighting" on the gondola, but if this is true, would visitors who come for the planned evening events at the proposed interpretive center be riding the gondola in total darkness? This seems unlikely, in which case there will be night light impacts that should be addressed, particularly given the existing great horned and other owl populations on the site, as well as other nocturnal animals that inhabit it.

C.3 ZOO STEWARDSHIP OF PARKLAND

The Zoo's stewardship of the parkland is a factor that is not appraised by the MND/A, yet this is a condition about which there is now considerable evidence accumulated since the 1998 approval that should be considered. FOKP is concerned that the Zoo's stewardship of park resources is more verbal than substantive, and this raises realistic concerns, based on past practices, about the extent to which any mitigation measures will actually be carried out, monitored and enforced. This concern is justified by the evidence of how fully the mitigation measures of the previous approval have been accomplished.

Compliance with 1998 MND Mitigation Measures

The 1998 MND specified a number of mitigation measures, including preparation of a Habitat Enhancement Plan including an annual assessment of the species and distribution of

invasives, a management element for control of each species, and a revegetation element for areas where heavy invasive weeds comprised a significant portion of existing vegetation. However, many of these measures have been inadequately carried out or not done at all.

Invasive plants

While the Zoo has engaged volunteers in removal of invasive species along Arrojo Viejo Creek, it has neglected entirely to attend to the greatest threat, which is invasive French Broom spreading upward *from the Zoo* into the remainder of Knowland Park. Friends of Knowland Park and the California Native Plant Society organized a broom removal in spring of 2010, clearing a large swath of broom from the northeastern ridge grassland area proposed in the Amended Master Plan for animal exhibits in an effort to keep it from spreading further upward into the park's grasslands. We carefully collected seedheads in a plastic bag and piled the pulled plant debris near the road where the Zoo, which had loaned us equipment for pulling, had agreed to pick up and dispose of it.

Despite several reminders by email, the Zoo failed to pick up the material until after the annual road grading was done, which resulted in the bag of seedheads being torn open and ground into the disturbed soil, creating new opportunities for broom to spread. This experience, and the proliferation of broom near the veterinary hospital site and other areas within the existing Zoo grounds raise serious questions about the Zoo's ability to deliver on its promises of abating invasives and its willingness to commit adequate resources to achieve promised abatement. Given the soil disturbance that the proposed Amended Master Plan Project will create in the upland grasslands, it is likely to result in a more rapid spread into the relatively intact native plant communities of the remaining parkland. This is not sufficiently addressed as an environmental impact on the park that is likely to be worsened as compared to the 1998 Approved Master Plan, given the geography of the reconfigured exhibits and the site.

The Zoo has also used mower type equipment that creates considerable soil disturbance to clear broom from the bison area. This soil disturbance creates more opportunities for the seeds to sprout and take root. See
http://www.calipc.org/ip/management/plant_profiles/Genista_monspessulana.php

This creates justified concerns about the viability of the recommended mitigation measures and how the Amended Master Plan project construction would contribute to further spread of invasives into the unspoiled areas of the remaining parkland. This requires further analysis, including a discussion of the criteria by which city staff assesses the adequacy of Zoo stewardship of public parklands and the extent to which they have been met during the past 13 years.

Rare Plants

It is notable, for example, that a rare colony of robust monardella (*Monardella villosa ssp. Globosa*) was identified within the proposed expansion area in the 1998 MND. The Zoo, as the designated steward of park resources and claiming a conservation mission that justifies this Amended Master Plan proposal, was responsible for management of this area during the ensuing 13 years, but the colony now appears to have been eradicated, possibly through aggressive grazing of goats used for fire protection purposes or by other means. Given that the previous report proposed mitigation measures for its protection, it is difficult for the public to verify that protections are occurring or to have confidence in the Zoo's ability or willingness to make protection of the new rare plants identified in the current MND/A a priority.

Zoo Dumping into Parkland Drainages

For many years, the Zoo dumped construction and animal wastes into upper Knowland Park. Attached in the Appendices are maps and recent photographs of substantial piles of construction/demolition debris including concrete, rebar, chain-link fencing, asphalt paving material, steel and wood sign posts, wire, chairs, tables, tires, and lots of sections of cut Eucalyptus trunks and branches taken in the park. It appears to amount to many tons of debris, dumped into a drainage channel that runs off the northern side of Knowland Park mesa and drains down toward the Arroyo Viejo Creek area.

While the Zoo has always claimed that any dumping was done by others, signage debris clearly shows that at least portions of the debris was from the Zoo itself. See the sign denoting a former Elephant Enclosure and indicating times the exhibit might have been open to the public (on the flipside). Relatively young Eucalyptus trees appear to have sprouted from the drainage, perhaps from the dumped eucalyptus debris also present.

The hillside above has clearly had a substantial amount of dirt pulled down to cover an extensive area, perhaps suggesting that even more debris is covered over under soil. Measurements in Google Earth and on the ground indicate that the debris field covers roughly 25,000 square feet and ranges in depth from one foot to 6 feet deep. We consider that it is likely more than 1000 cu yards of infill and construction debris.

This is not the only dumping ground in Upper Knowland, but it is the only one that contains Zoo signage. The other dumping grounds, however, contain massive amounts of animal dung, presumably cleaned from the animal enclosures. While we do not have the capability to determine when this dumping occurred, the relatively intact paint on the elephant sign suggests it was during the last 20-25 years. In any case, the Zoo is responsible for stewardship of the park and has not cleaned up this dumped material, despite obviously having knowledge of it. These are facts not acknowledged or addressed in the 1998 MND or in the MND/A which have bearing on the likely impact of the project.

Seasonal Wetlands Mismanagement and Obliteration of Frog Breeding Area at Expansion Site

See above under Biological Resources section.

Summary

Considerable, documented evidence suggests that the Zoo has not taken seriously enough its stewardship role, or that it is not capable of upholding it properly, despite its legal obligations to the city.

D. CONCLUSIONS

Knowland Park is, as the OSCAR policy document of the city's General Plan affirms, the "crown jewel" of the city's parks system. It is also an important and unique area of native plants and wildlife habitat, protected in some respects by the topography of the natural hillsides and canyons it features despite its nearness to urban development. For this reason, any proposal for development of the parkland areas warrants especially rigorous environmental scrutiny.

The Amended Master Plan proposal meets the criteria under which a full Environmental Impact Report under CEQA must be prepared, to wit: (1) substantial changes are proposed to the project; (2) substantial changes occur in the circumstances under which the project is to be undertaken; or (3) new information of substantial importance emerges. Pub. Res. Code § 21166; Guidelines § 15162; *Mira Monte Homeowners Ass'n v. County of Ventura* (1985) 165 Cal.App.3d 357, 363-66. Where the agency previously certified a negative declaration, as for this project, an addendum is only appropriate where "minor technical changes or additions are necessary." *Mani Brothers Real Estate Group v. City of Los Angeles* (2007) 153 Cal.App.4th 1385, 1400. The Amended Master Plan clearly involves far more than minor technical changes and involves serious environmental impacts, as discussed above, that cannot be fully mitigated.

Friends of Knowland Park has been unfairly accused of being "anti-Zoo." On the contrary, while there may be some park supporters who do not like the Zoo, many of our members are also Zoo members, and we respect the great improvements the Zoo has accomplished over the last two decades. However, we cannot support a plan that creates such clear destructive impacts on rare and endangered plants and wildlife and their habitat.

As engaged citizens of Oakland, we believe that it is our civic duty to participate in the decision-making about use of this important public resource, and these comments reflect that commitment. We believe it is possible to design a plan that has less environmental impact on our environment and is more authentically true to the conservation mission of the project. The

environmental diversity and richness of Knowland Park call for a fuller analysis of the impacts of this project, which will permanently affect the many species that make their homes in Knowland. However, the 30-day time frame within which we were permitted to appraise the more than 1300 pages of often highly technical materials that took the city more than a year to prepare was inadequate, and these comments are incomplete as a result. A longer public review and comment period is a requirement for a full EIR under CEQA precisely because that process assures that many eyes review projects with important impacts and participate in efforts to improve development proposals. We urge that a full EIR under CEQA be prepared before this project is approved.

E. APPENDICES

Appendix 1: Sudden Oak Death, Supplemental Document

Appendix 2: Zoo Stewardship Photo Exhibits

Appendix 2: Zoo Stewardship Photo Exhibits

Set 1: Dumping ground overview maps (5 pages)

Set 2: Elephant site photos (15 pages)

Set 3: Historical views of eucalyptus in Upper Knowland Park (4 pages)

Set 4: Timeline photos of dump site D – Vet Hospital site (9 pages)

Set 5: Vet hospital site photos (8 pages)