

John

8/8/08

Steve R. Murillo
President
First Manhattan Mortgage
1147 Highland Avenue
Manhattan Beach, CA 90266

LETTER AA

City of San Bernardino
Development Services Department
Attn: John Oquendo, Assistant Planner
300 North D Street
San Bernardino, CA 92418

Subject: Draft Environmental Impact Report University Hills Specific Plan (UHSP)

Dear Mr. Oquendo:

Think of your most favorite sport or hobby. Now multiply the feeling you get when you think of that times 100 and you will approximate how I feel about hang gliding. It brings a joy to my heart that is only surpassed by very few things in my life.

I thank you for this opportunity to provide input on the Draft Environmental Impact Report (DEIR) for the University Hills Specific Plan. I have a significant safety concern with the proposed plan.

A small part of the proposed project lies under the landing approach. This would make the approach extremely unsafe for hang gliding pilots. Please keep this area clear for the safety of pilots in the air, and people on the ground. The proposed plan creates the significant potential for accident.

The current DEIR failed to compare the altitudes of incoming gliders with the proposed homes. Comparing the two diagrams, the altitude near the "3" on Figure 2 would be at about 100 feet on a perfect approach, 50 feet when landing at the 50' altitude marker and zero for a landing at the 100' altitude marker. There would be 'close calls' every few days to few weeks; and collisions every one to two years. This is clearly not safe.

Further, I am concerned that the proposed flight path (low over homes) may conflict with the Federal regulations for the operation of ultralight aircraft which control the operation of hang gliders in US airspace.

Please modify the University Hills Specific Plan to:

- a) Keep the 400 X 400 foot area under the airpark approach clear;
- b) Dedicate the airspace to the Department of Water Resources.

AA-1

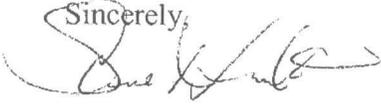


This can be accomplished by swapping the location of the small number of homes affected with some of the planned project open space.

I have visited San Bernardino and the Andy Jackson Airpark and enjoyed its world-class facilities. The hotels, gas stations, restaurants, shops and other local businesses all benefit by attracting pilots, just like me, from across the State, nation and other countries. Please work with the developer to create a project which preserves and protects the future of hang gliding and paragliding in San Bernardino.

AA-1

Sincerely,



Steve R. Murillo

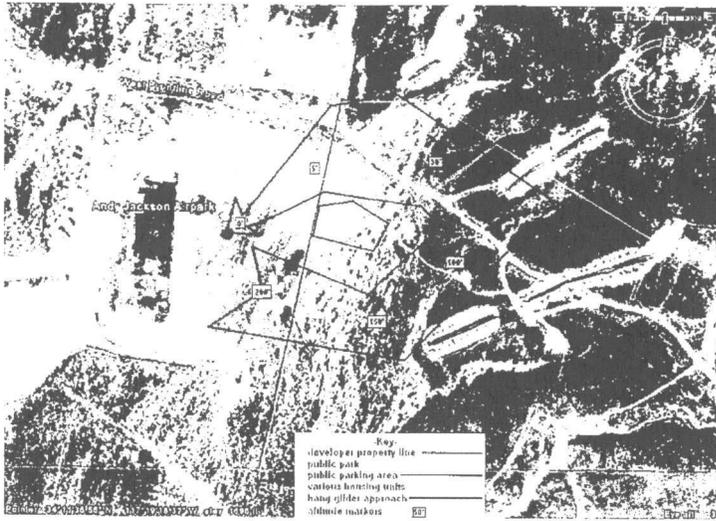
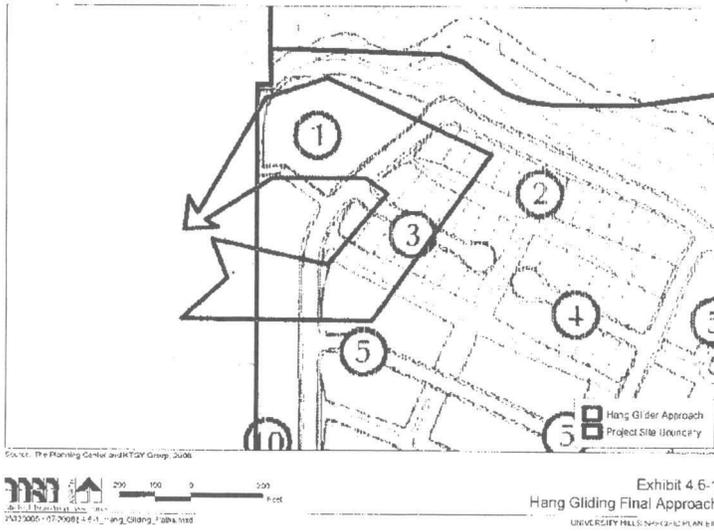


Figure 1



Figure

re 1

Figure 2

Letter AA – Steve Murillo Letter for Andy Jackson Airpark

Response to Comment AA-1

The comments regarding conflicts with the landing zone and the Proposed Project are addressed by Responses H-1 through H-3 as well as in the extensive analysis provided in Response G-4 to the letter from the Crestline Soaring Society.

**San Bernardino Valley Audubon Society
P.O. Box 10973
San Bernardino, CA 92423**

Sept. 27, 2008

Terri Rahhal, City Planner,
Deputy Director
City of San Bernardino
Community Development Department
300 N. "D" Street, 3rd Floor
San Bernardino, CA 92418-0001

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CITY OF SAN BERNARDINO
DEVELOPMENT SERVICES
DEPARTMENT

Re: University Hills Specific Plan

Ms. Rahhal,

The following are comments on behalf of the San Bernardino Valley Audubon Society (SBVAS) on the planned University Hills development. SBVAS represents approximately 2,000 members concerned with environmental issues in the San Bernardino Valley and elsewhere in southern California.

We (SBVAS) oppose the construction of this planned development for a variety of reasons.

- 1) This is not an appropriate area to develop due to severe seismic, fire and hydrologic dangers.
- 2) This project would contribute significantly to air pollution, including global warming, at a time when it is critical to reduce such pollution.
- 3) This project will contribute to traffic congestion at a time when southern California is mired in some of the worst traffic problems in the country.
- 4) This project will destroy a significant tract of Coastal Sage Scrub, an imperiled plant community, along with its wildlife, including several sensitive species.
- 5) This project will decrease the aesthetics of the viewscape of the San Bernardino Mountains enjoyed by millions of people living in the region or traveling through.
- 6) This project is growth inducing in an area unsuitable for additional growth due to the above reasons.

Aesthetics

We disagree with Impacts AES-1 and AES-3 that state there will be no adverse effects on scenic vistas or the surroundings of the site. The vista of the San Bernardino Mountains enjoyed by millions of viewers, both travelers and residents, will be permanently impacted by this development. Portions of this development will protrude up into the foothills farther than any other developments in this western portion of the mountains. These impacts should be considered significant, and should be part of the decision to deny the project.

Air Quality

We consider it irresponsible to ask the San Bernardino City Mayor and City Council to adopt Overriding Considerations in the areas of Air Quality to allow this development to proceed. Southern California is in an air quality crisis, and has been for many years. Our health and the health of our children are declining due to air pollution. While it is true that much of the Inland Empires air pollution originates in LA and Orange Counties, we generate a significant portion ourselves. It is inexcusable to approve a project that has significant adverse impacts in Construction air emissions, Operational air emissions and Cumulative air emissions, and is inconsistent with the regional Air Quality Management Plan.

We contend that the DEIR is insufficient under CEQA in its analysis of air pollution in that it does not inform the public as to the adverse cumulative environmental effects of air pollution stemming from this project on the human and natural environment. This analysis should include projections of health problems due to air pollution, including projections of how many people will suffer respiratory illnesses, and an analysis of the economic losses due to lost workdays due to such illnesses.

We at SBVAS are disappointed at the lack of attention given to global warming, the overriding environmental crisis of our age. Impact AIR-9 is supposedly mitigated by measures MM AIR9-9a and b. These mitigation measures barely begin to mitigate the contribution to climate change of a project of this size. Given the recent legal action taken against San Bernardino County by the State Attorney General and SBVAS and its subsequent settlement on the subject of the effects of growth in the Inland Empire on global warming, we expect the City of San Bernardino to show the same sense of urgency and commitment to be part of the solution of the global warming crisis, not part of the problem. The adverse contribution this project will make to global warming is far greater than will be addressed by the proposed mitigation. The proposed Project will utilize a variety of measures to make it a "green" development, allowing comparisons to a "normal" development that might not utilize those energy saving measures. Interestingly, I was unable to find an actual comparison of greenhouse gas emissions before and after mitigation in the DEIR or its Appendices. More importantly, there is no discussion of the overwhelming contrast between the amount of greenhouse gases produced by the Project compared to the No Project-No Development Alternative.

The City must have the foresight and commitment to the fight against global warming to say no to additional developments that provide no benefit except tax dollars. Even the generation of tax dollars is suspect, as many housing projects end up causing as much or more to municipalities in the long term than they generate. How do we explain to our children and the world that we are still bent on building everywhere in the Inland Empire no matter the environmental costs? We urge the City to reject this Project.

Biological Resources

We take particular issue with **Impact Bio-2**: "The proposed project would not adversely affect riparian habitat or sensitive natural communities." The project maintains that no mitigation is necessary for this impact. This conclusion stems from an incorrect re-designation of a significant portion of the project site from Riversidean Sage Scrub (RSS) to Chamise Chaparral. This incorrect re-designation eliminates any responsibility to mitigate for RSS, a sensitive natural community. All previous studies in the area recognized that much of the lower alluvial fan below the fault line is either RSS or RSS mixed with non-native grassland. This included the habitat assessments of the planned Paradise Hills development, as well as the focused survey in 2007 for California Gnatcatcher, a threatened species dependent on sage scrub. The re-assignment of the entire site minus the riparian drainages to chamise chaparral is based on a single day site visit by an experienced botanist from UCR. We contend that this botanist did not traverse the entire 404-acre site and made broad generalizations from the portions he saw, and depended too heavily on his general familiarity with the site from the past. The preponderance of evidence from previous studies, and current photographic evidence unequivocally show that the southwestern portion of the lower alluvial fan is RSS, some of which is mixed with non-native grasses and other herbaceous species. The situation is complicated by the fact that sage scrub is often a successional phase following fire in chaparral. The sage scrub plants dominate while the crown-sprouting chaparral plants regrow and eventually dominate. There are portions of the alluvial fan, particularly behind Badger Hill and the southeastern portions that are likely in a temporary resurgence of this successional sage scrub. These areas show regrowth of chamise and scrub oak, and will probably be dominated by these species as they likely were in the past until the area burns again. These areas can still be occupied by sage scrub wildlife during this successional phase, particularly if there is intact "climax" sage scrub habitat in the vicinity that does not grow back into chaparral. The southwestern portion of the alluvial fan on the project site is sage scrub without chaparral influence, as is much of the sage scrub on CSUSB property across the flood control channel from the project site.

This finding is significant in terms of the habitat itself and for the wildlife associated with sage scrub. Much has been written in recent years on the precipitous decline of Coastal Sage Scrub (CSS) and its manifestation in the Inland Empire, RSS. The greatest reasons for the decline of this plant community have been direct destruction for development and the type conversion to non-native grasslands or ruderal habitat through direct disturbance, increased fire frequency, introduction of invasive plants, and the effects of air pollution. California Fish and Game Department (CDFG) and the U.S. Fish and Wildlife Service (USFWS) take the destruction of CSS and RSS quite seriously, and

actively negotiate with developers to mitigate for losses of this plant community. Replacement ratios of 2:1 or 3:1 are common when on-site preservation is not feasible. The inaccurate re-naming of the entire site as chaparral relieves the developers of their responsibility to mitigate for the loss of RSS habitat.

The DEIR must be denied or delayed until there is an accurate description of the habitat. After all, this is one of the main purposes of CEQA and the environmental review process. We call on the developer and the lead agency not to hide behind the "disagreement among experts" clause that is so prominently displayed in the Executive Summary. We believe a serious scientific mistake has been made, and the only way to resolve it is through more thorough science. We believe that CDFG and USFWS must become directly involved at this time in the approval process and help resolve this issue.

Impact Bio-1: We disagree that no special status species will be adversely affected by this project. On the contrary, several species of concern to the USFWS and CDFG will be adversely affected. The only species in this category that are afforded mitigation are Plummer's Mariposa Lily and Burrowing Owl. Eleven of the following species of concern have been observed on the Project site, and yet are afforded no mitigation.

Raptors: We have not had access to previous surveys that identified seven raptor species on site, as mentioned on page 8 of the Biological Resources section of the DEIR. Dave Woodward of SBVAS (the author of these comments) has personally observed the following raptor species of concern on the project site within the last three years.

- White-tailed Kite (*Elanus leucurus*)
- Cooper's Hawk (*Accipiter cooperii*)
- Sharp-shinned Hawk (*Accipiter striatus*)
- Ferruginous Hawk (*Buteo regalis*)
- Golden Eagle (*Aquila chrysaetos*)

These raptors still forage over the foothills of the San Bernardino Mountains and the nearby Cajon and Lytle Creek floodplains. Their foraging habitat is greatly reduced from historical times, and is in grave danger of disappearing with the current pace of development. In the project area, raptor foraging is concentrated in the more gently sloping alluvial areas. Mitigation should be provided for the loss of habitat for these raptors. Since a clearing survey cannot function as mitigation for these wide-ranging raptors, habitat replacement seems the only reasonable option, other than denial of the project to maintain their habitat. On page 18 of the Biological Resources section of the DEIR, it is suggested that the White-tailed Kite will benefit from the permanent protection of 238 acres of open space. This is not valid. White-tailed Kites, as well as Ferruginous Hawks and Golden Eagles do not forage in steep chaparral slopes, which is what the preserved open space consists of. Cooper's and Sharp-shinned Hawks may retain some benefit from the upper slopes that are being preserved. The other raptors will only benefit from preserving the sage scrub and grassland habitat.

Songbirds:

Bell's Sage sparrow (*Amphispiza belli belli*)

Rufous-crowned sparrow (*Aimophila ruficeps*)

California Gnatcatcher (*Polioptila californica*)

The two sparrows, which are California species of concern, were observed on site during biological surveys, as well as by SBVAS members on recent visits. The former species prefers sage scrub, though it sometimes breeds in chaparral. The latter species likes grassy slopes with sparse sage scrub elements. Both species are in decline in southern California, and populations are being watched by wildlife agencies and organizations. No mitigation is proposed in the DEIR for these species. In fact, they are directly excluded from even the minimal mitigation offered nesting birds delineated on page 19. "Most of the site planned for development is devoid of trees or large shrubs suitable for nesting birds protected by the MBTA." This is patently untrue. Bell's Sage sparrow and Rufous-crowned sparrow, as sage scrub nesters that place their nests in low shrubs or on the ground are not excluded from protection by MBTA. This seems to be yet another attempt to portray a minimal impact of the Project to sage scrub habitat and its wildlife. Even if the preconstruction nesting bird survey were widened to include sage scrub species, there would be little benefit, in that there are no guarantees of avoidance. As with the other sensitive species, only denying the project, preserving the onsite sage scrub and grassland, or providing replacement habitat can be effective mitigation.

The California Gnatcatcher (CAGN) is a Threatened species that is an obligate resident of sage scrub. It is more common in San Diego, Orange and Riverside Counties. It is quite rare in San Bernardino County, where it occupies RSS and AFSS in the foothills and alluvial plains. There is a very recent confirmed record of California Gnatcatcher from the Cajon Creek alluvial plain from July 2008, about 3 miles from the project site, on record with the USFWS. The literature search conducted by Michael Brandman and Associates in 2007 failed to discover a confirmed sighting on the project site on 5/20/95, as archived by the USFWS on 3/3/03. This bird was located just above the abandoned ranch area of upper Badger Canyon in a patch of sage scrub surrounded by chaparral. We do not know what condition this patch is in, or whether or not it still contains sage scrub vegetation. It is at the lower edge of the area to be preserved as open space by the proposed project. That the specific area is to be preserved is good news, but the unalterable fact is that most of the CAGN habitat is downhill from this location, and virtually all is slated for development. The 2007 survey for CAGN was negative, and was conducted on 58 acres of habitat on the lower alluvial fan that was considered suitable for CAGN. Given the history of fire in the area, it is not surprising that gnatcatchers are having a very difficult time recolonizing and maintaining their populations. This species has a very tenuous hold in the foothills of the San Bernardinos and San Gabriels, and any loss of RSS or AFSS diminishes its chance for recovery. A recent CAGN survey on the Cal State side of Badger Hill was also negative, but the author concluded that the Cumulative loss of gnatcatcher habitat was a significant impact (Rincon Consultants, 2002). We agree with this assessment, and maintain that despite a negative survey, the presence of suitable habitat and nearby sightings of the species

renders the habitat on the project site as important to the recovery of the species, and should be afforded mitigation if it is to be destroyed. If the suitable habitat is not preserved, we recommend the purchase of replacement habitat of sage scrub at a 3:1 ratio, as close to the project site as possible. This replacement habitat should be identified as soon as possible, so that the public can review the impacts to sage scrub habitat and CAGN as part of this DEIR. It is not sufficient to defer mitigation to after approval of the DEIR, as the public and wildlife agencies will not be able to judge whether the impacts to sage scrub and CAGN are fairly mitigated for.

Mammals:

Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)

These special status mammals were discovered in the course of surveys for the San Bernardino Kangaroo Rat, an endangered species that was not found on site. LAPM is found in lower elevation grasslands and coastal sage scrub habitats, a fact pertinent to the DEIR's denial that sage scrub exists on site. SBKR is found in Alluvial Fan Sage Scrub and open sandy RSS. Suitable habitat was found on site, prompting the protocol surveys.

Reptiles and Amphibians:

Western Spadefoot toad (*Spea hammondi*)
California Legless lizard (*Aniella pulchra*)
San Diego Horned lizard (*Phrysonoma coronatum blainvilli*)
Coastal Whiptail (*Cnemidophorus tigris stejnegeri*)
Coast Patch-nosed snake (*Salvadora hexalepis*)
Coastal Rosy boa (*Charina trivirgata roseofusca*)

Western Spadefoot toads breed commonly in the flood control basins in the project site, as well as higher in the reaches of Badger Canyon where water collects. Numerous individuals were found in these locations early 1990s as part of amphibian surveys by the San Bernardino County Museum. After breeding, they migrate into the adjacent sage scrub and chaparral. This project will take out significant foraging and aestivation habitat for this species of concern.

California Legless lizard: I have no records of this secretive species on site, but I have found it nearby at the edge of CSUSB. The habitat in the lower sections of the project site is suitable, and it is expected to occur.

San Diego Horned lizard was found in previous surveys. It was recently observed by SBVAS members on the south side of Badger Hill, and no doubt still occurs on site.

Coastal Whiptail was observed on site in previous surveys.

All the lizards and both snake species are California species of concern. They occur in alluvial fans in the San Bernardino and San Gabriel foothills, including Devore and the Cajon/Lytle floodplains, and likely are found on site. It is difficult to get an accurate sense of which reptile species occur at a particular site without extensive trapping. A day or two of walking around will not reveal the more secretive or rare species, which includes most of the species listed above.

All these species of concern have essentially been ignored in this DEIR. All suffer from habitat losses in southern California, and deserve mitigation. Preserving steep chaparral slopes may benefit the Coastal whiptail and Coastal rosy boa, but will not benefit the other species, all of which need loose sandy or gravelly alluvium. Only the sage scrub/grassland habitat in the lower alluvial portions of the project site is suitable, and should either be preserved or replacement habitat provided.

To conclude, a minimum of 11 species of concern will be eliminated from the project site if University Hills is approved. An additional 5 species are likely to be impacted. It is clear that Plummer's Mariposa Lily was singled out as a species of concern for mitigation because it can be transplanted (with unproven success rates), thus avoiding any significant mitigation involving preserving or replacing habitat. Similarly, the only other species of concern the DEIR provides (minimal) mitigation for is the Burrowing Owl, which can potentially be translocated to suitable habitat elsewhere. It is inconsistent and insufficient under CEQA to ignore these other 11-16 species of concern. Indeed, it shows a clear bias on the part of the authors of the DEIR to portray the Project as one with minimal environmental impacts, when in reality the impacts are many and profound.

Cumulative Impacts

Air quality impacts are admitted to result in a significant cumulative effect. We disagree that they are unavoidable. These impacts can be avoided by not approving the Project.

The destruction of the biologically sensitive lower alluvial fans and sage scrub habitat of the Project site is cumulatively significant. Preservation of sage scrub and its wildlife is a major focus of HCPs, private land trusts, wildlife agencies, State Parks, the Forest Service and other agencies throughout southern California. Preserving 235 acres of steep chamise chaparral does not compensate for the loss of the lower habitat.

As stated on page 10, Section 6: Other CEQA Considerations, "*Development of the Proposed Project would result in an increased demand for fire protection services, resulting in the need for additional fire protection facilities and personnel to cover the Proposed Project.*" This is clearly a cumulative impact. Similar significant cumulative impacts are reported under Public Services and Recreation, where the Project will stress existing public service capabilities.

As for Population and Housing, the contributions of the Project are compared with projections generated by the Southern California Association of Governments (SCAG). As an organization, SBVAS rejects the SCAG definitions of "buildout" because they are

a self-fulfilling prophecy, not a reflection of the needs of the member communities and citizens. SCAG projections are used to justify building that is unnecessary. Interestingly, this Project even exceeds SCAG's population and housing projections for the region. In the current housing collapse, it is ludicrous to say that there is any need for University Hills whatsoever. Cumulative impacts are therefore significant.

With regards to traffic, p.15 Section 6 of the DEIR reads: "With the implementation of project mitigation measures MM TRANS-1 through MM TRANS-8, project impacts will not make substantial contributions to cumulatively considerable degradation of intersection performance but will contribute to ongoing freeway congestion. Recall that funding has not been procured or even proposed for mitigation measures 1-8. For this reason, the conclusion reached in the DEIR is that cumulative traffic impacts will be significant for both intersections and the freeway.

Energy Conservation

Energy Conservation should be a high priority for all communities in America, as we are faced with skyrocketing energy costs, an urgent need to reduce our dependence on foreign oil, and the specter of global warming from excessive energy use. These are national priorities, as well as for the State of California. We suggest the City of San Bernardino get on board, and take a hard look at approving massive housing projects that will significantly increase our use of energy. Incremental reductions in energy use that will come from energy efficient buildings do not compare to the significant energy saving realized by eliminating massive projects such as University Hills.

Fire Hazards

Impact HAZ-7 states that for this Project, there will be no significant risk of "loss, injury or death involving wildfires" in an urban/wildlands interface. We disagree with this assessment. First however, we commend the developers and the fire safety agencies for doing their best to reduce fire danger for this planned development. The experiences of catastrophic fires in the last decades have heightened public and governmental awareness to the dangers of development in the urban/wildlands interface, and have resulted in various technological advances and regulations that reduce the impacts of such fires. We must stress though, that these advances reduce but do not eliminate fire risks. It can be argued that any structure even in the middle of a city is subject to risk from fire, and cannot be guaranteed protection. While this is true, it is fundamentally different from building in an extremely dangerous fire zone with full knowledge on the part of the developer and governmental agencies that the area WILL burn, and that structures and possibly lives will be lost. University Hills is planned for one of the most dangerous areas in the Inland Empire with regards to fire. Steep terrain, dense chaparral, and Santa Ana winds approaching 100 mph have led to a history of catastrophic fires in this part of the San Bernardino foothills, most recently the Old Fire of 2003. We do not believe it is responsible to deliberately place future residents at risk by approving a project in this location.

Increasing the fuel reduction zone from 50 to 150 feet will create a significant buffer from direct flames, according to the BEHAVE model used in the DEIR. This model states that the danger from direct flames from the surrounding wildlands will be reduced by 90%. While an admirable reduction, which homeowners could fall in the 10% statistical probability and suffer catastrophic fire damage? Again, we understand that it is impossible to provide 100% protection everywhere, but this is a case of approving housing in an area that will burn, and yet will be populated with people that are not always aware of the risks they take. Despite being informed of fire hazards at the close of escrow, it is human nature to think that catastrophes won't happen to them. At the end of escrow, future residents will simply be eager to move into their new home and will not back out of a deal because they have just been made aware of potential fire danger.

Another deficiency in the fire analysis concerns flying embers, or firebrands. In catastrophic wildland fires, embers are blown by strong winds long distances from the fire front. The proposed Project will have structures with the latest improvements to resist ignition from firebrands, such as fire resistant roofs and screened vents. These improvements will do much toward reducing ignition from embers, but as with the analysis of direct flames, there can still be a significant risk associated with embers even with these improvements in place. The BEHAVE model did not address firebrands, and the SIAM model stated on p. 16 of the University Hills FMMP that "*Vegetation management cannot be practically extensive enough to significantly reduce airborne firebrand ignitions landing on combustible roofs or other fuelbeds on privately controlled land around a home.*" Other fuelbeds presumably means things like construction projects, trees and shrubs, vehicles, patio furniture, open garages, etc. Firebrands can also smash through home windows and ignite the interior.

A third concern is the likelihood of fire resulting from gas lines broken during an earthquake. This can occur up to 24 hours after the initial seismic activity. Road damage from the earthquake will further compromise efforts to extinguish the flames. This additional hazard underscores the overall dangerous nature of the Project site.

To conclude, while the San Bernardino City Fire Department has approved the FMMP, there are still significant fire risks to a development in such a dangerous area. Coupled with risks from seismic activity and the potential for flooding damage, we urge the City of San Bernardino to reject this Project. This would prevent putting future residents at risk, and would allow our fire fighters and first responders to concentrate on protecting existing homes and businesses as well as new development in less fire-prone areas. Any additional tax dollars that might accrue from the Project would not offset putting future residents in harms way.

Growth-Inducing Impacts

The DEIR reports that this project will be growth-inducing. We agree with this assessment. Approval of the project will give the green light to other projects planned or not yet planned for the foothills of the San Bernardinios and San Gabriels. This would be a very dangerous precedent, given the extremely hazardous nature of the foothill zone. This project in particular allows housing in a steep, bowl-shaped canyon surrounded by

Forest Service land, on a major active fault in one of the most fire-prone regions of southern California. Not only is the Project growth-inducing, it induces growth in areas that should not be developed.

Hydrologic

We request that the Project be denied until additional information is provided to the public with regards to flooding hazards. The DEIR reports on p. 2 of Hydrology and Water Quality that the project site is not at a risk of flooding during a 100-year storm because *"the project site is located within the Zone X designation, which signifies locations outside the 100-year and 500-year floodplains."* However, in the Technical Appendices (p. 10, Paradise Hills Hydrology and Hydraulic Analysis, Technical Memorandum October 25, 2007) it is stated that

"Areas within and downstream of this project will be impacted by recent FEMA action regarding mapping of areas where uncertified levees are shown as providing flood protection. The revised FIRMS were released to the public on September 28, 2007. The impact of FEMA action within the project is evident in Planning Areas 9,11, 12, 14, 15 16 17 and 18 which were originally outside the FIRM floodplain but now are partially or completely within Approximate Zone A floodplains. This eventuality was not included in the original modeling, so we cannot provide an opinion as to whether detailed floodplain modeling would reduce or eliminate these encroachments. The impact of FEMA's revised FIRMS would be analyzed at a future date by others as a condition of development."

This uncertainty means it is impossible to tell if future homeowners will be qualify for the National Flood Insurance Program. More importantly, it puts into question whether this project is sufficiently protected from catastrophic flood. The Christmas floods in nearby Cable and Waterman Canyons following the Old Fire in 2003 point out how dangerous these foothill areas can be. Devore and Cable Canyon received approximately 9 inches of rain in 24 hours, fully overwhelming the capacity of the local drainages and resulting in millions of dollars in damages and the loss of human life. Flooding in Waterman Canyon was particularly severe, and resulted in the death of a dozen people. The DEIR does not convince us that a development in Badger Canyon would be safe from catastrophic flood given its geographic and topographic similarity to Cable and Waterman Canyons. San Bernardino City officials should exercise extreme caution in approving this Project when such a fundamental risk has not been sufficiently studied or quantified. It would be a disservice to both the public and the developer to prematurely approve this Project, only to find that further analysis shows the future residents would be at extreme flooding risk. It is the responsibility of the developer to have all the hydrological analysis completed upfront.

Land Use

We have shown in our analysis of Biological Resources that the proposed mitigation for habitat and wildlife is insufficient. It therefore follows that Impact LU-4 has not been proven to be less than significant. This impact states that *"The proposed Project would be consistent with regional habitat conservation plans or natural communities conservation plans."* Goal 2.7 of the City of San Bernardino General Plan is

"Control development and the use of land to minimize adverse impacts on significant natural, historic, cultural, habitat, and hillside resources."

The Project proponents maintain this goal is met because of the preservation of the upper reaches of Badger Creek and clusters development on the flatter portions of the site. We have pointed out in Biological Resources that the flatter portions of the site are by far the most biologically sensitive and unique. This project will destroy significant habitat and natural resources, and is not in compliance with Goal 2.6.

Seismic

While the DEIR recognizes the problem of liquefaction, and shows that steps will be taken to reduce – but not eliminate – this particular seismic danger, there are other problems that must be addressed, such as the site's very proximity to the San Andreas Fault and the fact that the unconsolidated sediment on which much of the development is proposed to be built sits in a geologic bowl, which will magnify the effects of a quake. The United States Geological Service has just produced a report, The ShakeOut Scenario, by Dr. Lucy Jones, et. al. (USGS Open File Report 2008-1150, CGS Preliminary Report 25, Version 1.0, available on-line at urbanearth.usgs.gov, hereinafter "the Report") as part of the preparations for "The Great California ShakeOut," a massive state-wide earthquake response drill scheduled for November 13, 2008. It was realized that if there were to be such an earthquake drill, there would need to be a specific event scenario to which the responders were to react to test readiness for such an event. The 14 authors of the Report came up with a likely event, then did multiple redundant computer modeling to determine the impact of the event on specific areas, and consulted with 19 infrastructure groups (electric power, transportation, water, etc.) to determine what would happen in the aftermath of the event. The list of additional contributors is six pages long (pages 18-23) and includes several public employees from San Bernardino County. The Report is the most detailed and most-researched projection yet made of the impacts of a major earthquake on southern California.

The event chosen was a magnitude 6.7 earthquake, centered near Bombay Beach on the Salton Sea, which would rupture the San Andreas Fault all the way to Lake Hughes, on the north side of the San Gabriel Mountains. There was deemed to be a 60% chance of an event of this magnitude in the next 30 years, or a 2% chance per year. The Report paints a grim picture of such an event, with the city of San Bernardino being particularly hard hit because of the likelihood of liquefaction occurring in the downtown area. In our comments, we have distinguished between those parts of the Report that clearly refer to damage in the downtown area and those which we believe do apply to the area of the proposed University Hills development.

The site selected for most of the building of the proposed University Hills development is an area of largely unconsolidated sediment nestled between ridges of bedrock, in effect a geologic bowl. Earthquake shock waves will bounce back and forth off the bedrock prolonging the time that the sediments will be subject to shaking. Instead of being subject to the passage of a single set of earthquake shock waves, the site chosen for most of the development will be subject to shaking over and above that caused by simple proximity to the San Andreas Fault alone. The principal author of the Report, Dr. Lucy Jones, has likened such a situation to a bowl of jello. Hit the outside of the bowl and the bowl will

briefly ping, but the jello inside the bowl will continue to shake for sometime afterwards ("The Great California ShakeOut", by Dr. Lucy Jones, Beckman Center, University of California Irvine campus, September 24, 2008).

As the Report points out:

Ground motions depend on three first-order effects (which will affect shaking at every site) and several secondary effects (which will affect shaking at some sites). The first factor is magnitude—a bigger earthquake produces more energy, which means more energy arrives at any site. The magnitude depends on both the area of the fault that moves and the amount of slip. Each point on the fault radiates energy proportional to the amount of slip at that point. The second factor is distance from the fault because the shaking attenuates as it travels through the crust. The third factor is soil conditions—the characteristics of the soil or rock at a particular location affect the amplitude and duration of the shaking at that site. The secondary factors include directivity, in which ground motions are focused in the direction of rupture propagation and are diffused at the 180-degree-opposite direction) and radiation pattern, variations in energy distribution that depend on the orientation of the fault that is rupturing. (Page 37).

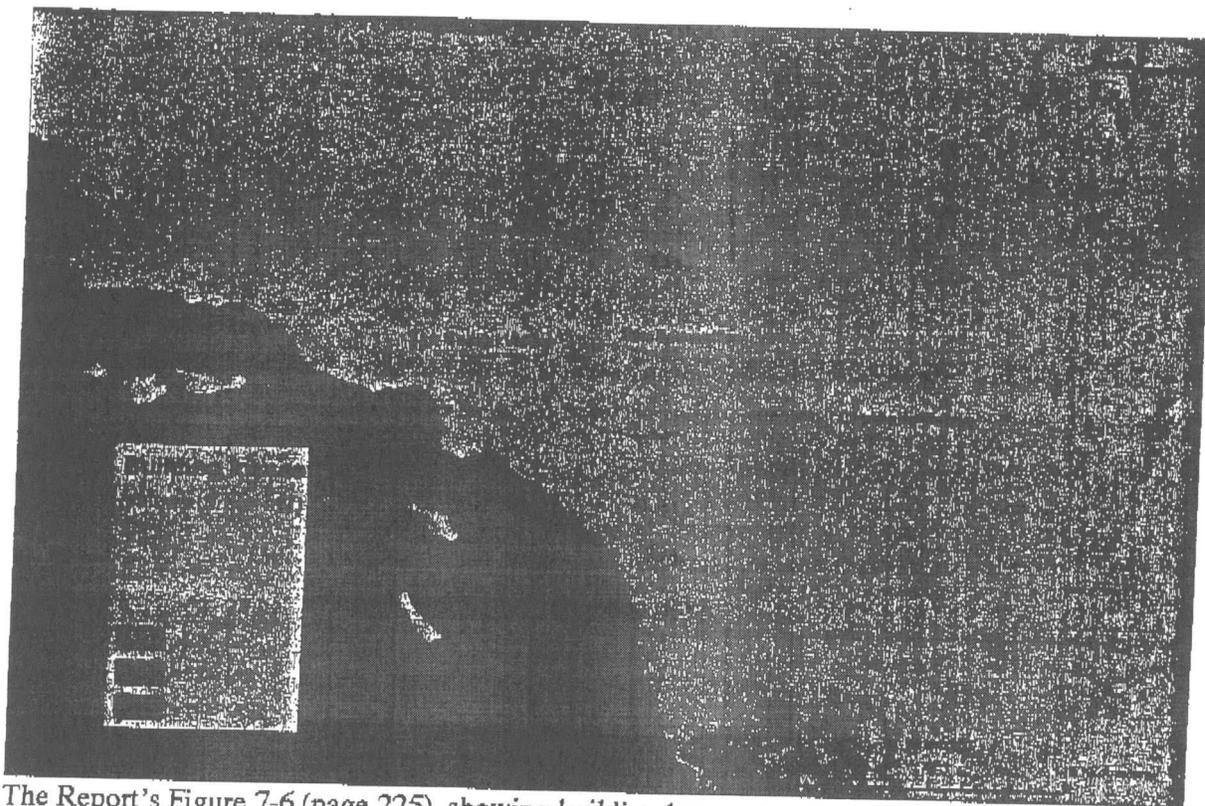
The Report's findings included the following likely effects of a major earthquake in southern California along the San Andreas Fault, which passes under the area proposed for most of the University Hills development:

- "Very strong shaking" (approaching 3 m/sec) near the San Andreas Fault (page 39) and areas along or immediately adjacent to the Fault would suffer the highest "peak ground acceleration" (page 69).
- The San Bernardino Valley would be shaken "extremely strongly" (page 42) and for about 30 seconds (page 43)
- Most earthquake damage would be concentrated in the areas of highest shaking. Damage is not a simple linear function of shaking level but rather often demonstrates a strongly non-linear acceleration toward failure at the highest shaking levels. Pockets of strong shaking that also undergo a long duration of high shaking are particularly prone to damage (page 40).
- Effects include significant primary surface faulting along the trace of the San Andreas Fault and landslides within the San Bernardino Mountains in areas with steep terrain (page 49) that would affect the higher portions of the University Hills development.
- While the Report concentrates on major roadways such as Interstates that cross the San Andreas Fault, all roads that cross the fault would likely be damaged and the majority would be impassable (page 54). Anyone at the University Hills development with a car on the northeast side of the San Andreas Fault would likely be unable to use it to leave the area in the event of such an earthquake.
- A strong likelihood of as many as 9 aftershocks up to magnitude 6.87 beginning as quickly as 14 minutes after the initial earthquake in the San Bernardino area (page 90)
- Fires after the initial quake could likely cause as much or even more damage and death than the earthquake itself, because of the combination of broken gas lines,

individual house fire ignitions, disrupted road communications, the abundance of fuel, and overwhelmed emergency response systems. To quote the Report's scenario at length:

Within 24 hours of the earthquake several large fires are burning in the Cities of Riverside, San Bernardino, Santa Ana and East Los Angeles. Though all local fire units and equipment including units from adjacent areas mobilized through the fire mutual aid system are engaged in fighting these fires, they are yet uncontained and there is danger that several individual large fires will merge into a major conflagration. These fires have occurred in areas where search and rescue is needed or already in progress. Some search and rescue teams as well as spontaneous volunteers have been forced to abandon efforts to rescue people trapped in the debris due to rapidly approaching fires. Though teams have accelerated their efforts in these fire endangered areas and are working under considerable stress, many have been ordered to leave by fire units despite the fact that those trapped in the debris will die if fire reaches the site of rescues.

- The area proposed for development is immediately adjacent to an area that will likely experience among the highest building value losses (see figure 7-6 reproduced below).



The Report's Figure 7-6 (page 225), showing building loss pattern in dollars per square meter. Note that the development, which of course could not be included since the buildings do not yet exist, would be adjacent to some of the hardest hit areas.

All of these problems associated with a significant seismic event in the next 30 years, for which we have a 60% likelihood of occurrence, must be thoroughly and exhaustively addressed by the EIR.

TRAFFIC

The traffic analysis for this project was undertaken by the City of San Bernardino. Conclusions were that to achieve acceptable levels of intersection traffic at Opening Year and in 2030, improvements would cost approximately \$11,679,000. The Project's fair share is estimated at \$2,362,000. For freeway improvements, the total cost is estimated at \$1,686,000, with the Project paying \$4,047,000. These estimates are considered "rough order of magnitude" (p. 65, City of San Bernardino, University Hills Traffic Impact Analysis (Revised)). These improvements are necessary because the Project will contribute traffic greater than projected limits allow.

It is troublesome that no funding has been procured for the taxpayers' portion of the projected improvements. While understandable that the City is not responsible for traffic improvements outside its jurisdiction, the public has no assurances whatsoever that the improvements will ever be undertaken, leaving the residents of the area with less than acceptable traffic from the Project. The extreme uncertainty of the cost of the improvements (order of magnitude, i.e. up to \$127 million) leads us to conclude that the Project should be denied until funding is acquired to complete the necessary traffic improvements. The current state of the economy makes it extremely unlikely that the traffic improvements can be undertaken in a timely manner. Approval at this time would be putting the cart before the horse, in this case, the traffic before the road. As discussed under Air Quality, the greatest environmental challenge of our time is to reduce the production of greenhouse gases and reverse global warming. The Project, if approved, would generate over 6,000 daily vehicle trips, which would be a significant contribution to the production of greenhouse gases, as well as ozone, particulates and other pollutants that will adversely affect the health of our residents. The financial and environmental risks of increased traffic from the Project are potent reasons to deny the Project.

David Goodward
Conservation Committee
San Bernardino Valley Audubon Society
(909) 783-2417
davegoodward@earthlink.net

Letter BB – San Bernardino Valley Audubon Society

Response to Comment BB-1

Section 4.1 of the DEIR examines the potential changes in views, light, and glare that could be created by the Proposed Project. The analysis of views toward the Project site from various locations, and the illustrative computerized renderings provided in Exhibits 4.1-1 through 4.1-3, both with and without the Project, clearly show that the elevation of planned development will not reach high enough up the foothill slopes to be visible from the surrounding valley floor. In addition, Badger Hill and the Shandin Hills block potential views of the site from a number of vantage points, including the I-215 Freeway. The DEIR also examines potential impacts related to increased light and glare, but the design guidelines of the proposed Specific Plan will help reduce these impacts to less than significant levels.

Response to Comment BB-2

Section 4.2 of the DEIR provides a detailed examination of the potential air quality impacts of the project, both over the short-term from construction and over the long-term from project operation. It should be noted that this analysis was supported by a detailed technical study prepared by qualified professionals (see DEIR Appendix B). Due to the daily thresholds for criteria pollutants established by the South Coast Air Quality Management District (SCAQMD), most projects that requiring grading of more than 50 acres are found to have significant impacts. In addition, most residential projects with more than 400 units usually exceed the SCAQMD's daily thresholds for long-term emissions and are therefore found to be significant. Larger residential projects also often do not meet the requirements of the Air Quality Management Plan (AQMP) for similar reasons. The methodologies for calculating these impacts are all contained in the URBEMIS computer program developed and maintained by the SCAQMD, which also establishes the significance thresholds.

The DEIR clearly identifies a number of mitigation measures recommended by the SCAQMD to reduce both short-term and long-term emissions, but even implementing these cannot reduce project emissions below the SCAQMD thresholds, mainly due to the size of the project.

Response to Comment BB-3

In addition to the analyses outlined in Response BB-2, the DEIR examined cumulative air quality impacts of the project using thresholds and methodologies established by the SCAQMD for this type of development. In addition to the criteria pollutant estimates, the DEIR used the Local Significance Thresholds (LSTs) to determine if there would be any localized impacts on surrounding neighborhoods or other sensitive receptors. Due to the distance of the planned development from existing uses, the EIR determined there would be no significant localized air quality impacts.

Response to Comment BB-4

Section 4.2 of the DEIR provides a detailed examination of the potential air quality impacts of the Project relative to greenhouse gases and global climate change, consistent with current industry standards and despite a lack of direction from the State or federal governments. It should be noted

that this analysis was supported by a detailed technical study prepared by a qualified professional (see DEIR Appendix B). The efficacy of the proposed mitigation measures and the various design features of the project, including LEED certification of the clubhouse and multi-family buildings, are demonstrated in the comparison of the project to the California Climate Action Team's reduction strategies for compliance with AB 32. This project provides extensive mitigation for air quality impacts, many of which will help reduce its production of greenhouse gases. The No Project-No Development Alternative would obviously not generate any greenhouse gases, but neither would it achieve any of the objectives of the Proposed Project.

Response to Comment BB-5

Vegetation classification has a significant element of the arbitrary about it. How many chamise shrubs per acre does it take to make it chaparral? 10? 1000? The chaparral community also always has many coastal sage shrubs habitating for several years following fire, and even at maturity.

This site is too "wet" in the surveyor's opinion to support coastal sage scrub as a "climax" community -- that is typical of sites where the soil is too dry during the summer to support sclerophylls in any abundance. On this site, either the woody sclerophylls will come back in a few years, or the weedy annual grass will crowd out everything else. The most likely trend, is for the whole area to type convert to annual weedy grassland. That is what is happening in many chamise stands at the lower edge of their elevation range and is most likely what is happening at this site as well.

The surveyor expects the amount of rainfall on the Project site will tend to accelerate the conversion to grass. As the chamise competition declines, more grass will grow. The coastal sage shrubs (*Eriogonum*, *Artemisia*, etc.) may hold out for a while, due to their fast growth, but CSS does not withstand fire well and the thickening grass will increase fire frequency. Even in the absence of fire, coastal sage stands are converting to annual grass in many areas due to shrub seedling suppression by dense grass.

The City is developing strategies to help reduce greenhouse gas emissions from a wide variety of sources under or at least partially under its control, such as new housing, commercial, and industrial development. Additional analysis of greenhouse gas emissions and potential impacts related to global climate change is provided in Response BB-4.

Response to Comment BB-6

The vegetation survey and analysis was prepared by an eminently qualified botanist, who has extensive experience in the project area and on the Project site itself. Repeated wildfires over the years in the general project area have resulted in a mosaic of plant species and mixtures of plants that do not easily conform to standard vegetation classifications (e.g., chaparral, alluvial fan sage scrub, etc.). The botanist who evaluated the Project site evaluated all the plant communities within the property boundaries, and was familiar with the vegetation in those areas from past surveys as well. The botanist attempted to characterize the vegetation onsite in a comprehensive way, which led him

to conclude that it most closely fits into the definition of chamise chaparral, although even that classification currently does not match the condition of the onsite vegetation.

There are riparian communities on the parcel, and the surveyor mapped them, and provided a brief description. The DEIR concluded the Project would not significantly affect riparian habitat. Here is the text of the botanist's specific response regarding the comment this community type:

"D.) Willow Riparian woodland

*This vegetation type is weakly and somewhat discontinuously present along the lower wash in Badger Canyon. In many areas, flooding has removed the trees and shrubs, leaving only herbs along the stream margins. This vegetation type extends from the vicinity of the abandoned resort to the detention basin. There was flowing water throughout this stretch in Oct. 2007. Among the species present here were willows (*Salix lasiolepis*, *S. gooddingii*), *Typha*, *Juncus rugulosus*, *Typha*, *Mimulus guttatus*, *M. cardinalis*, etc. This riparian zone has recently been subject to severe down-cutting and the wash is now nearly impassable from east to west. Ten years ago there was much less of a chasm along the stream and more riparian vegetation, especially a great many more tree willows. Presumably, this cutting will eventually stabilize and woody vegetation will re-establish. Willows are not common in this stretch, but they are the most common woody vegetation in this zone."*

While riparian habitat was not well developed at the time of the surveyor's visit, due to severe floods that followed the burning of the surrounding hills, it was present and the physical part of the habitat, permanently wet sand/soil, was essentially intact. The biological part of the habitat, the riparian trees and shrubs, were severely disturbed but recovering. If the site were visited today it doubtless would have a better (approx. 25% or better) developed riparian plant community than it did at the time I visited and by next year it would be better yet again.

Audubon contends that the surveyor's redesignation of certain patches of vegetation as burned chamise chaparral, rather than coastal sage scrub, is incorrect. On the contrary, the surveyor believes that the alteration was well justified based on several lines of evidence outlined in the report and again below.

The surveyor observed that the sites that were mapped as sage scrub in the earlier report were clearly former chaparral that had been burned -- probably repeatedly. At least that was true of those that the surveyor visited. It was easy to find stumps and resprouting individuals of chamise almost everywhere on dry slopes, including the alluvial ones below the fault.

Audubon is correct that the surveyor did not visit the entire site, but the surveyor did visit a large part of it and specifically tried to visit each of the vegetation units identified in the previous mapping effort (NRA, 2005), the results of which the surveyor was asked to evaluate. The surveyor didn't see

anything that they thought was coastal sage scrub as a vegetation type, though they certainly saw many species which can be elements of this vegetation type.

The surveyor remembered from visiting this area in the mid 1990s that much of this unit was formerly chamise-dominated chaparral, with locally substantial amounts of *Ceanothus* and other chaparral shrubs. In general, chamise was more dominant on the south-facing slopes of the mountains and canyons, while other shrubs were conspicuous in more sheltered locations. But, even scrub oak is present down onto the alluvial slopes.

There was much more chaparral 10-15 years ago in this area than there is now. The regular fires are decimating the shrub community. The shrubs can't fully recover before they're burned again. Obligate seed reproducers can't make seed before they're burned, and those that resprout from burns (e.g., chamise) suffer more mortality than can be replaced by reproduction.”

Any dispute about correct classification of the vegetation will have to focus on the following numbered units from the previous vegetation map (NRA 2005) which the surveyor included under a more inclusive term chamise chaparral.

This concludes the direct responses from the botanist (Andy Sanders) who surveyed the University Hills Project site relative to the DEIR document.

Considerable time could be spent arguing over exactly how to characterize and classify the vegetation on the Project site. However, time would be better spent evaluating the importance of onsite resources to determine the potential impacts of the proposed development.

Regardless of what the assemblage of plants on the Project site is called, plant coverage was generally low but is now returning to typical chamise chaparral cover levels, and these factors may limit the degree to which the site can support listed or otherwise sensitive species of plants and wildlife. The lower slopes of the alluvial fan contain plants plant species that may be more indicative of disturbed grasslands, various types of sage scrub, or chamise chaparral, depending on the specific location observed. However, it is the botanists conclusion that the entire site has and will support chamise chaparral again as the vegetation recovers from the large wildfires of recent years.

Response to Comment BB-7

It is true sage scrub is a successional plant association, and the lower slopes of the site have supported various plants indicative of sage scrub communities in past years. These factors were taken into account by the botanist who surveyed the site. He carefully considered the mixture and distribution of plants onsite before concluding that the overall composition most closely resembled chamise chaparral. More accurately, he considered the vegetation of the site contained elements of and was becoming dominated by species indicative of chamise chaparral in contrast to associations more dominated by sage scrub species. It is his contention that the site was historically predominantly

chamise chaparral, though he acknowledges that there may have been local patches (perhaps shifting with environmental events) of sage dominated vegetation.

The botanist/surveyor could find “Riversidean Coastal sage scrub” in the middle section of Badger Canyon and believes this was burned chamise chaparral. It may be that at the time of the earlier survey this area was dominated by weak-wooded species, rather than true chaparral species. However, the surveyor thinks that was simply because it was at an early successional stage following fire. The botanist had the following specific responses regarding this comment:

“Chaparral/Riversidean Sage scrub is in the southeast corner of the parcel on an alluvial slope. Resprouting chamise is widespread and it was clear that prior to the burns of the past few years, this was a reasonably pure stand of chamise chaparral. The plants were 3-5 ft. tall over much of the unit, though canopy cover is probably not more than approximately 25%.

Riversidean Coastal sage scrub/Annual grasslands were not conspicuous in this unit and resprouting chamise was widespread. It was clear to the surveyor that prior to the recent burns, this site was a dense stand of chamise.

The large unit of Annual grasslands/ Riversidean Coastal sage scrub (CSS) in the western edge of the parcel may be the area Audubon is most concerned about. The areas that the surveyor visited had many resprouting individuals of chamise, supporting the inclusion in this unit. Other chaparral species were also present.

The problems with vegetation/community classification are large. One of them is temporal change -- variation in stand composition through time. The other is gradual transition across the landscape. Species densities usually change gradually (at least on a gradual environmental gradient) and one can walk down an alluvial fan and gradually go from clear chaparral (with many tall, evergreen, woody sclerophylls) to almost all soft-wooded small shrubs with drought deciduous leaves). If environmental gradients are abrupt, then stand composition may also change abruptly. In general, vegetation communities do not have nice sharp boundaries that land managers might like.”

This concludes the direct responses from the botanist (Andy Sanders) who surveyed the University Hills Project site relative to the DEIR document.

Response to Comment BB-8

The commentator submits that the classification of the site as CSS or RSS would constitute a significant impact by itself necessitating mitigation. However, the important issue is not what the vegetation is called, but rather what resources it represents and the listed or otherwise sensitive species of plants or animals that it supports. The abundance of plants on the alluvial fan portions of the site is medium to low, [see above discussion in BB-7] while their diversity is similarly low, which is indicative of the repeated disturbance by wildfires and human activity. The direction of these comments is that loss of CSS or RSS must be mitigated by onsite preservation or offsite

acquisition at 2:1 or 3:1 ratios. However, there is no evidence provided other than opinion that the vegetation on the Project site has sufficient biological value to support either onsite or offsite mitigation. The Proposed Project is preserving 235 acres or 58% of the site as permanent open space, encompassing those areas that would have the highest potential for wildfire in the future. These areas are more diverse in terms of plants and animals than the lower alluvial fan slopes, which is why conservation groups (including the Sierra Club and the Audubon Society) recommended these areas be preserved under the previous Paradise Hills project. It should be noted that much of the middle and upper reaches of Badger Creek, and their attendant hillsides, were proposed for development under the Paradise Hills project. The current University Hills project eliminates development from these areas and proposes to preserve them as permanent open space because they represent more biologically valuable habitat compared to the disturbed lower alluvial fan slopes.

Response to Comment BB-9

The decision to delay or deny a project rests with the City, and it is certainly within their discretion to do so if they determine it is appropriate based on available evidence. CEQA allows lead agencies to determine what evidence it will accept as part of its decision-making process, which is why EIRs discuss “disagreements among experts” as outlined in the State CEQA Guidelines. It should be noted that neither the U.S. Fish and Wildlife Service (USFWS) nor the California Department of Fish and Game (CDFG) commented on the DEIR, despite having 60 days to provide comments.

Response to Comment BB-10

Depending on the time of survey and general conditions on a site at the time of survey, a different collection of raptors, as well as other birds, may be observed or would be expected to occur. It is possible that one or more of these indicated species may be present in the project area, and that this potential is indicated in the DEIR document (page 4.3-13) as well as the associated technical studies. Loss of large foraging areas, including the alluvial fans along the forest foothills, will have incremental and cumulative impacts on raptor foraging. It should be noted that much of the area to be preserved as permanent open space (235 acres or 58% of the site) is not necessarily steep but varies in topography - many areas are almost flat, along some of the ridges and some of the wider canyon bottoms. It is therefore inaccurate to infer the open space areas proposed for preservation do not support raptors. Based on available evidence, the EIR concluded that the low quality of existing onsite vegetation on the lower slopes, and preservation of 235 acres (58% of the site) in and around Badger Creek, would help mitigate this incremental loss, and thus potential impacts of the project on raptors were anticipated to be less than significant. Neither the USFWS nor the CDFG chose to comment on the DEIR, and there has been no empirical evidence presented by the commentator that would contradict the conclusions of the DEIR regarding raptors.

Response to Comment BB-11

The site has been repeatedly surveyed for birds and the results presented in the DEIR. The statement about trees or large shrubs was true at the time of survey; most of the site was devoid of them as the area was in the process of recovering from major wildfires in recent years. The commentator has

provided no empirical evidence that any of the suggested mitigation strategies are warranted given the low quality of onsite vegetation and habitat from repeated wildfires and human disturbance. The mitigation measures for nesting birds are typically recommended and approved by USFWS and CDFG to protect avian species.

Response to Comment BB-12

The commentator indicates that the California Gnat Catcher (CAGN) is an obligate resident of sage scrub and is found in AFSS and RSS in the general area. However, it has not been found onsite during repeated protocol surveys, which argues against the site containing significant AFSS or RSS. Discussion of classifying the onsite vegetation is provided in the previous Responses BB-6 through BB-8. The commentator did note that gnatcatchers have been sighted in the areas north of the San Andreas Fault on the Project site, which have historically supported chaparral vegetation – this is within the area proposed for preservation as open space under the University Hills plan (Planning Area 24).

The commentator failed to note that the conclusion of significant cumulative impacts to the gnatcatcher in the 2002 Rincon study were most likely related to the project area being within the Critical Habitat designation for the species, which has since been removed. There is no justification for offsite acquisition of gnatcatcher habitat at a 3:1 ratio given that this area has been removed from the Critical Habitat designation for this species.

Response to Comment BB-13

The DEIR discusses these small mammal species (pages 4.3-10 and 4.3-13) and determined that impacts to these species would be less than significant with preservation of the proposed open space land (Planning Area 24). No evidence has been presented that would contradict that conclusion.

Response to Comment BB-14

The DEIR discusses these small reptile and amphibian species (pages 4.3-10 and 4.3-13) and determined that impacts to these species would be less than significant with preservation of the proposed open space land (Planning Area 24). No evidence has been presented that would contradict that conclusion.

Response to Comment BB-15

The commentator is incorrect; potential impacts to these species were addressed in the DEIR, and the potential impacts to those species that had the potential to occur onsite were examined and found to be less than significant with the preservation of 235 acres or 58% of the site as permanent open space. Loss of the disturbed alluvial fan areas onsite will result in incremental impacts to these species, as identified in the EIR, but these impacts are considered less than significant by the qualified biologists who surveyed the site.

Response to Comment BB-16

The comment about 11 species of concern being eliminated is not accurate. The DEIR did examine potential impacts to these and other sensitive species that may inhabit the Project site, and found that most were either present or not present, and had a low potential for occurrence because suitable habitat was not present. The commentator has provided no empirical evidence that these species actually exist onsite or that development of the site would physically remove them from the site. The commentator fails to acknowledge that these species are not formally protected under federal or state laws, but that CEQA requires an examination of potential impacts to them, which was provided in the Draft EIR.

Response to Comment BB-17

The issue of cumulative air quality impacts was addressed in Response BB-3, as well as additional related information in Response BB-2.

Response to Comment BB-18

The determinations on the DEIR are consistent with the evaluations and opinions of the botanist and other biologists who surveyed the Project site. Preservation of 235 acres of upland habitat will help minimize cumulative impacts to biological resources in this area, as outlined on page 6-8 of the DEIR.

Response to Comment BB-19

The City Fire Department has made long-term plans to provide adequate fire services for the north San Bernardino area. Section 4.11 of the DEIR evaluates project-level impacts of the University Hills project on fire services, and there are adequate resources to serve the project. The information on project-level impacts indicates there are sufficient resources (i.e., facilities and personnel) to continue serving the project area according to City standards. With adequate plans for future service in place, there is no indication that the area will experience adverse cumulative impacts regarding fire service.

Response to Comment BB-20

The determination of population and housing impacts of residential projects is necessarily dependent on local growth projections by the City, as incorporated into their recent General Plan update, as well as regional projections by Southern California Association of Governments (SCAG). These are the legitimate established benchmarks against which projects, and jurisdictions, measure the potential growth impacts of development projects, such as was provided in Section 4.10 of the DEIR.

Response to Comment BB-21

The recommended mitigation measures TRANS-1 and TRANS-2 are related to fair share contributions to the City's established plan for roadway and intersection improvements to accommodate growth, which is an acceptable mitigation strategy under CEQA. TRANS-8 is related to mitigating short-term construction traffic impacts, so the project will provide this measure in its entirety.

Response to Comment BB-22

The University Hills Project proposes a number of measures and the Specific Plan contains a number of features that will make it considerably “green” and help reduce energy consumption compared to standard single-family residential development.

Response to Comment BB-23

The DEIR and the fire protection study prepared for the project both conclude that the project area is prone to large recurring wildland fires. However, the results of the fire study differ from the opinion of the commentator. The fuel management study concludes that the project can be sufficiently protected from fire, even large wildfires, such as the Old Fire in 2003, by the construction of appropriate fuel modification buffers, the location of perimeter streets between the proposed housing and wildland areas, and strict adherence to appropriate fire and building codes. Certainly, no planning or design can eliminate the potential for wildland fires. However, fire professionals have developed computerized fire models such as BEHAVE accurately predicting the distribution and intensity of even large wildfires based on available information and applicable site conditions.

Response to Comment BB-24

No amount of planning or design can completely reduce the risk of injury or damage from wildland fires, however, the goal of fire protection agencies is to reduce that risk to manageable or acceptable levels, and inform potential residents of those relative risks. The City Fire Department has reviewed and approved the FMMP for the project. The proposed fuel modification buffers and other measures are consistent with the City’s current standards and requirements for fire protection in the foothill fire zones as well as Chapter 7A of the newly adopted International Building Code. The project will have a perimeter road (i.e., a road separating houses from wildland areas) and fuel modification zones that vary in width based on the results of the BEHAVE model. The Fire Department has indicated it currently has facilities, personnel, and response times adequately serving the project area. In addition, prospective buyers will be informed of the potential fire risks. These measures will help ensure that potential impacts related to risk of fire are reduced to less than significant levels.

Response to Comment BB-25

While the BEHAVE model does not specifically address firebrands, the latest fire and building codes are designed to further reduce the risk of fire transmission in this manner from the level of protection offered by previous codes. The City requires development in the foothill fire zones to meet strict construction requirements in terms of methods and materials to help minimize the risk from fire, including flying embers. New housing developments in fire hazard zones along the San Gabriel and San Bernardino mountain foothills survived the most recent wildfires due to heroic fire protection actions by firefighters. During post-fire interviews, these firefighters credited new housing construction codes for helping them successfully defend homes from the devastating wildfires in 2003 and 2006.

Response to Comment BB-26

The Project site does contain risks, which are discussed in Section 4.6, Hazards and Hazardous Materials, and Section 4.11, Public Services and Recreation (fire protection services). It is possible that gas lines will be damaged or broken during seismic events, but this risk threatens residential development throughout southern California. Transmission facilities across faults contain automatic shutoff devices, while individual homeowners are encouraged to shut off their gas service after an earthquake if they suspect a leak. The potential for fires and gas leaks after earthquakes cannot be reduced completely, but implementation of current building codes and the installation and proper use of safety equipment and practices will reduce potential risks for the Proposed Project to less than significant levels.

Response to Comment BB-27

Potential flooding issues are addressed in Response 29 in this letter. Fire-related issues are addressed in the previous Responses BB-23 through BB-26 in this letter. The potential risks from flooding, fires, and earthquakes cannot be reduced completely for the Project Site. However, implementation of the Specific Plan, current building codes, and the installation and proper use of safety equipment and practices will reduce potential risks for the Proposed Project to less than significant levels.

Response to Comment BB-28

As indicated, the DEIR did conclude the proposed University Hills project is growth inducing, but it is up to the discretion of the City to determine whether a particular project is appropriate in its particular setting. To preclude or prohibit development is not reasonable or consistent with private property ownership and the right of owners to develop their property in accordance with established plans and guidelines.

Response to Comment BB-29

Badger Creek is the major drainage onsite and its floodplain limits have been adequately characterized by the project hydrology study and available hydrologic data. The science of hydrology and flood characterization is constantly improving due to changes in technology and analytical methods. The best available information at present indicates the areas planned for development within the University Hills Project are not within 100-year flood zones, but additional information and mapping may soon be available from the Federal Emergency Management Agency through its Flood Insurance Rate Map (FIRM) program to confirm this conclusion, and to more accurately identify the flood plain in the eastern portion of the site adjacent to a small natural drainage east of Badger Creek. All developed portions of the site will be protected from flooding and elevated at least one foot above the anticipated 100-year flood plain limits so that flood insurance will be available to future project residents.

Response to Comment BB-30

The commentator is incorrect; the responses to the previous comments by the commentator indicate the project will not have significant impacts on important biological resources. The analysis in

Section 4.6 of the DEIR clearly demonstrates the project is consistent with City General Plan Goal 2.7 and Biological Resource Management Area (BRMA) designation of the City. In addition, there are no approved habitat conservation plans applicable to the Project site. The design of the Specific Plan has protected the important biological resources associated with the City's BRMA and both riparian corridors onsite (Badger Creek and the small drainage east of Badger Creek). For these reasons, the project is consistent with local and regional planning efforts to protect significant biological resources.

Response to Comment BB-31

The referred study is regional in nature and does not accurately characterize a particular site such as the University Hills property. The location and nature of the San Andreas Fault in this area has been extensively studied in the past, and numerous trenching was conducted onsite as part of the geotechnical study and fault investigation specifically for the University Hills Project. The results of these site-specific studies were presented in Section 4.5 of the DEIR. Dr. Sally McGill, a professor of geology at Cal State San Bernardino, actually used the seismic trenching of the project for her research on the San Andreas Fault, and Dr. McGill did not comment on the contents of the DEIR.

The areas proposed for development are on an alluvial fan that contains deep unconsolidated sediments from runoff out of the nearby San Bernardino Mountains. The "ridges of bedrock" referred to by the commentator are actually further to the northeast and northwest, and do not physically surround the site, therefore the analogy of the site being in a "seismic bowl" is scientifically inaccurate. The fault investigation and geotechnical constraints analysis prepared specifically for this site have accurately characterized the potential direct and indirect seismic risks to development in this area. For example, the site-specific surveys identified the specific risks to the project site from seismic effects such as surface rupture, liquefaction, etc. as opposed to the more general or generic level of impacts identified in the referred to study by Dr. Lucy Jones. Grading for the Proposed Project will entail over-excavation of unconsolidated materials and recompaction to current building standards, typically at least 90 percent compaction.

The information provided on the regional damage and injury that would result from a major earthquake (on pages 12 and 13 of the Audubon letter) is applicable to all of southern California and should not be directly inferred or applied to the Project site. It is likely that a major earthquake on the southern section of the San Andreas Fault would cause widespread damage throughout southern California. As an additional note, any movement along the portion of the San Andreas Fault on the University Hills property would likely cause ground rupture, but the Specific Plan proposes a non-build setback zone along the fault of sufficient width, as required under the Alquist-Priolo Act, to protect adjacent structures from actual ground rupture. For faults such as the San Andreas, large earthquakes typically cause more damage at distance from the quake epicenter due to the differential transmission of seismic waves through various ground media (e.g., bedrock, sandy alluvium, etc.). It is therefore likely that the Project site would actually experience less intense seismic shaking than areas further from the quake epicenter.

Due to the level of scientific data available about the Project site, Section 4.5 of the DEIR concludes that geotechnical hazards on the site can be reduced to less than significant levels with implementation of the proposed mitigation measures. No empirical evidence about the Project site has been presented that would conflict with that conclusion.

Response to Comment BB-32

The commentator's statement about project traffic appears to be inaccurate, particularly in regards to freeway mitigation costs. The Traffic Impact Assessment (TIA) concludes that impacts of project traffic on local streets and intersections can be reduced to less than significant levels (i.e., LOS D or better during peak hours). However, the TIA does identify significant impacts to the I-215 Freeway, mainly because the timing of Caltrans funding of planned improvements is not specifically identified or earmarked. Fair share contributions to established area mitigation programs, such as the City's developer impact fee program (traffic portion) are acceptable mitigation strategies under CEQA. It is at the City's discretion if it chooses for a project to make all of its fair share contributions, or actually construct one or more of the needed improvements as traffic conditions/congestion dictate.

Response to Comment BB-33

The anticipated revenues and costs of development is not typically a consideration in a CEQA document unless they can be tied to a direct physical impact – in this case, the commentator is associating the financial characteristics of the project and the temporary state of the economy to traffic impacts and improvements. The City has established a developer impact fee program to fully alleviate traffic impacts from new development, and to assure that future Levels of Service on local roadways and intersections remain at acceptable levels (i.e., LOS D or better during peak hours). The City receives revenues from various sources, including state gas taxes and various subventions that are used to fund road improvements. The City's Capital Improvement Plan (CIP) identifies various traffic improvements that are to be made during specific fiscal years, which is consistent with CEQA requirements for established mitigation programs. It is up to the discretion of the City to approve or deny any particular project, including the Proposed Project, on its various merits and constraints. The EIR is intended to provide information to assist the City in its decision-making process on this project.



Sylmar

Hang Gliding Association
P.O. Box 922303 λ Sylmar, California 91392

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CITY OF SAN BERNARDINO
DEVELOPMENT SERVICES
DEPARTMENT

August 29, 2008

City of San Bernardino
Development Services Department
Attn: John Oquendo, Assistant Planner
300 North D Street
San Bernardino, CA 92418

Subject: Draft Environmental Impact Report University Hills Specific Plan (UHSP)

Dear Mr. Oquendo:

This is not another form letter. Your decision in this matter has the potential for inflicting irreparable harm on the sport of **silent soaring** - - motorless hang gliding and paragliding.

The proposed housing project threatens one of the few silent soaring locations in Southern California. Unrestricted commercial and residential development of the foothills of the San Gabriel and San Bernardino Mountain Ranges, among others, have nearly wiped out every silent soaring site in this region, the birthplace of our silent, non-polluting, thrilling and beautiful sport of hang gliding, and the location of the only remaining hang glider manufacturing company in the United States, Wills Wing, Inc. , in Orange, California.

See: <http://www.willswing.com/index.asp>

Within the past year, avaricious real estate development has destroyed the only remaining safe landing area for the historic Lake Elsinore silent soaring site. Your decision in this case has the potential for destroying the only other site remaining in San Bernardino County.

If the proposed plan is implemented, the site will be made unsafe for pilots and for residents and their property. Eventually, residents of these homes to be constructed in the final approach pathway to the flight park will complain of the danger and lack of privacy from above, and will demand that the flight park move somewhere else. But there is nowhere else - - not any more.

Please require the modification of the University Hills Specific Plan to:

- a) Keep the 400 X 400 foot area under the airpark approach clear;
- b) Dedicate the airspace to the Department of Water Resources.

This can be accomplished by swapping the location of the small number of homes affected with some of the planned project open space.

The members of the Sylmar Hang Gliding Association, Inc. (SHGA) have visited San Bernardino and the Andy Jackson Airpark to fly and land safely, and to enjoy its world-class facilities. Hotels, gas stations, restaurants, shopother local businesses all benefit by attracting pilots, just like me and the other members of SHGA, from across the State, nation and other countries. Please work with the developer to create a project which preserves and protects the future of silent soaring in San Bernardino.

Thank you for your consideration and assistance in this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lawrence W. Chamblee".

Lawrence W. Chamblee
Acting President
Sylmar Hang Gliding Association, Inc.

Attached: Sylmar Hang Gliding Association, Inc. Comments on Andy Jackson Flight Park



Sylmar

Hang Gliding Association
P.O. Box 922303 λ Sylmar, California 91392

Comments on Andy Jackson Airpark Sylmar Hang Gliding Association, Inc.

August 2008

Prepared for:

City of San Bernardino
Development Services Department
300 North D Street
San Bernardino, CA 92418

Re: Draft Environmental Impact Report University Hills Specific Plan (UHSP)

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I. INTRODUCTION

The Sylmar Hang Gliding Association, Inc., (SHGA) a chapter of the United States Hang Gliding Association, Inc., submits its comments on the Draft Environmental Impact Report, University Hills Specific Plan (UHSP)

These comments are submitted to make a record of the facts relevant to the use of Southern California lands by SHGA and its members relating to

- The historic use of Southern California lands by hang gliders and paragliders
- the light impact of silent soaring,
- the need for protection of Andy Jackson Airpark

The Sylmar Hang Gliding Association is one of the oldest and largest silent soaring clubs in the country, representing hundreds of pilots of hang gliders and paragliders, with members including some of the foremost pilots in the world. These comments are those of SHGA alone, but we believe they reflect the concerns of the Crestline Soaring Society, the silent soaring community at large, all soaring pilots, clubs and other associations of hang glider and paraglider pilots.

II. SUMMARY

The hang gliding and paragliding (“silent soaring”) community needs consideration of its needs as a low-impact, low-visibility recreational user. Outside public lands, real estate development in California has virtually eliminated all sites where hang gliding has been possible

Despite a long history of successful silent soaring in Southern California, persons ignorant of silent soaring confuse it, and its participants with other sports that they deem to be “thrill sports,” simply because it involves a measure of risk to its participants. However, silent soaring should never be confused with sports that create noise and pollution, damage the land, frighten and injure wild life and damage riparian areas, sometimes in a manner that seems careless, immature and inconsiderate of other land users.

On the contrary, pilots of hang gliders and paragliders undergo extensive flight and safety training in order to obtain their pilots’ licenses, invest substantial sums of money in training and equipment, and are generally more mature than most dirt bikers, OHV enthusiasts, snowmobilers, and other users that run their powered vehicles over the land.

We believe that the proper approach is to evaluate the impact of silent soaring on the land and on neighboring properties. Accordingly, the SHGA requests consideration of the following factors that affect the environmental quality of the entire region:

1. Silent soaring launch and landing sites for hang gliders are endangered throughout Southern California.
2. Launch and landing sites for paragliders are appropriate at any place where safe distances are maintained between launch and landing flight paths and structures or gatherings of people.
3. Existing soaring launch and landing sites should be preserved and additional sites explored for suitability.
4. Silent soaring is a recreational use that has a low impact on the land and a minimal effect on neighboring properties.

III. DEFINITION OF TERMS

Silent soaring – Means the sports of hang gliding and paragliding. Both are unpowered flight using only air currents to remain aloft. Flight is launched on foot, by the pilot's running forward until his speed enables his aircraft to fly. For purposes of these comments, silent soaring not include sailplanes, which are larger, cannot be foot launched, and require powered ascent (usually by a tow plane) and relatively large landing strips. Silent soaring operations are authorized under Part 103 of the Federal Aviation Regulations (FAR), 14 Code of Federal Regulations (CFR) Part 103.

Hang Glider – A wing-shaped or delta-shaped, unpowered aircraft constructed of Dacron fabric stretched over a metal and/or composite (fiberglass or carbon fiber) frame. Although Federal Aviation Regulations (FAR) allow unpowered aircraft weighing up to 155 pounds, hang gliders typically weigh between 50 and 90 pounds. Their wingspan is typically about 30 feet, more or less. The hang glider pilot is suspended (usually head-forward) in a harness beneath the wing, within the triangular control frame, and controls the hang glider by shifting his or her weight forward, backwards and sideways.

Paraglider - An unpowered aircraft resembling a parachute, constructed of Dacron, with the pilot suspended in a harness beneath the canopy. The paraglider pilot controls the aircraft by pulling on the suspension lines, called "risers" and on control lines connected to various points on the canopy. Paragliders are functionally different from skydiving parachutes, which are usually smaller and rectangular, and are generally incapable of soaring (staying aloft on air currents). **Paragliders** should not be confused with "parasailers," which are more or less hemispherical parachutes towed behind power boats.

Ultralight - Under Federal Aviation Regulations, 14 CFR Part 103, hang gliders and paragliders are included in the term "ultralight aircraft," which also includes powered hang gliders and powered paragliders. Except where specifically indicated, NOTHING IN THESE COMMENTS is intended to apply to the operation of any ultralight aircraft other than unpowered hang gliders or paragliders in National Forests.

USHPA – United States Hang Gliding and Paragliding Association, Inc., a corporation organized under the laws of California, having its principal offices in Colorado Springs, Colorado, is the national association of pilots of hang gliders and paragliders. USHPA has chapters across the United States, including the Crestline Soaring Society and the Sylmar Hang

Gliding Assn., Inc. USHPA has established the standards for training of hang gliding and paragliding pilots and instructors. USHPA publishes a monthly magazine containing articles concerning safety, competition, products reviews, pilot proficiency, individual pilots and their accomplishments, soaring sites, instruction, legal issues, and other subjects of interest to pilots. USHPA maintains a \$1 million liability insurance policy that indemnifies persons other than pilots against any personal injuries or property damage caused by hang gliding or paragliding. USHPA requires, as a condition of issuing a license to pilot a paraglider or hang glider, that all pilots execute a waiver, release, and covenant not to sue with respect to injury to the person or property of that pilot in connection with hang gliding or paragliding.

SHGA – Sylmar Hang Gliding Association, Inc., is a nonprofit corporation organized under the laws of California, a chapter of USHPA, and owner of the Sylmar Flight Park, located at Gridley Street, Sylmar, California. SHGA is one of the oldest and largest associations of hang glider and paraglider pilots and is unique in owning its landing field property. USHPA membership is a prerequisite for membership in SHGA.

IV. BACKGROUND INFORMATION

a. History

Hang gliding originated in Southern California in the late 1960's. In 1978, the first United States National Hang Gliding Competition took place in Sylmar, California, in the Angeles National Forest, at the Sylmar 1500 launch, a site that has since been lost. The landing site has been lost because of real estate development -- Olive View Hospital was built on the property that was used as a landing zone. The use of the launch was lost when the Forest Service closed the access road because of vandalism and crime problems unrelated to hang gliding.

Silent soaring is also practiced throughout California and the rest of the country. In the ideal flying conditions of the Owens Valley, "century" flights (100 miles or more) are quite common. There have been several recent flights from Sylmar, California to Andy Jackson Airpark, and beyond, as far as Thermal, Ca.

In the past two decades, the sport has grown, and is now represented by the USHPA. Along the way, sport parachutes evolved from hemispherical military-style paratroop canopies, to steerable skydiving chutes, and then into paragliders, frameless canopies capable of soaring, and controllable to pinpoint landings.

During that time, the equipment and pilot training have improved vastly, making the sport far safer than it was in the 1970's and early 1980's, when fatalities were not uncommon. Among other things, the USHPA has an accident reporting system that permits reports of accidents to be analyzed in its monthly magazine "Hang Gliding & Paragliding," so that dangerous locations, conditions, practices, and equipment can be discussed among pilots, and safety thereby improved.

Equipment and skills have improved to the point where the hang gliding distance record was set at over 300 miles in 2001 and has since increased almost every year.

b. Federal Regulation of Silent Soaring

The Federal Aviation Administration has promulgated a special part of its regulations, 14 CFR, Part 103, for powered and unpowered hang gliders and paragliders, collectively called "ultralight vehicles." Other than issuing those regulations, the FAA has not felt a need to

regulate pilot licensing, mainly because the United States Hang Gliding Association has developed programs for training and licensing pilots and instructors that has eliminated the need for any state or federal government regulation in those areas. Thus, silent soaring has always been a "self-regulated" activity.

c. The Sport and Its Participants

Participation in silent soaring requires substantial investments of time, money, and effort. To be licensed, pilots must train under USHPA-certified instructors. Pilot training includes piloting skills, rules of the road, safety, first aid, meteorology, Federal Aviation Regulations, USHPA regulations, aerodynamics and judgment. It includes practice launches and landings at a training hill site, as well as tandem flights with a certified tandem instructor, and supervised flights observed and controlled by an instructor on the ground in communication by radio. The minimum cost of training through proficiency level 2,¹ when a pilot may fly unsupervised at limited sites, is presently about \$1,500.

A beginner's equipment, including glider, harness, altimeter/variometer, air speed indicator, helmet and accessories typically cost a total of about \$3,000. Advanced equipment costs about twice a beginner's equipment.

Because of the pilot's investment of time and resources, by the time he or she is permitted to fly unsupervised, there is a level of maturity and experience that is not required in other forms of recreation that is practiced in the National Forests.

V. THE SITE PRESERVATION PROBLEM

Although the sky is vast, the number of sites where silent soaring can be practiced is surprisingly small. In the period 1970 – 2001, real estate development has restricted and eliminated silent soaring at most of the suitable sites, leaving only a few places where silent soaring is possible. No recreational activity has been affected by this encroachment more than hang gliding and paragliding. Here in the "wide-open" West, more and more sites are becoming closed to our use every year because of development. Rapidly diminishing numbers of suitable sites presently require us to travel for hundreds of miles, depending on the weather, to find a place to practice our sport

a. Launch Site Criteria

Mother Nature's laws permit foot-launched flight only at a surprisingly limited number of sites.

1. Lift- A launch site must have the potential to produce the lift that supports us. Because they are unpowered, our wings require a hillside launch site that either faces the wind or is heated by the sun. We soar only through the natural lift produced by the wind or thermal (heat-produced) air currents, called "thermals." Unless the site has a strong wind, blowing at right angles into a ridge (which will produce "ridge lift") it must be high enough that thermals develop below the launch site, so that a glider launching can "get on board" a rising thermal. If the glider misses the thermal, it "sinks out."

¹ USHPA issues licenses for hang gliding and paragliding at five proficiency levels:

1 –Beginner, 2 – Novice, 3 – Intermediate, 4 – Advanced, 5 – Master. Hang glider pilots are designated H-1, H-2, etc. and paraglider pilots are designated P-1, P-2 etc.

2. Nearby Landing Zone ("LZ")

Even at suitable launch sites, depending on the weather, we are frequently unable to gain any altitude because the lift may be weak or absent that day, at that site. Consequently, every suitable launch site must be close enough to a safe landing zone so that it can be reached "on a glide" -- meaning, without any lift. Thus, the distance to an LZ should not exceed five times the difference in elevation between the launch and the LZ. Although most modern hang gliders have a glide ratio better than 5-to-1, we encounter "sink" (descending air currents) as often as we encounter lift, and 5-to-1 is more difficult for paragliders. In Southern California, and particularly on the southern (facing the sun) slopes of the San Gabriel and San Bernardino Mountains, real estate development has crowded houses right up to the mountains, eliminating vacant fields or slopes that could be used to land hang gliders. A safe LZ is one that is fairly open, and large enough so that the trees surrounding it will not create a turbulent "wind shadow" that can make landing dangerous. The safest landing for hang gliders is uphill and upwind, so that the speed over the ground is at a minimum, no faster than we can run carrying a 90-pound glider. Paragliders can land in smaller areas. For obvious reasons, it is unsafe for structures to encroach the area near a landing zone. It is incompatible with fair allocation of open-space, recreational land use for development to be allowed to metastasize into dangerous proximity of an established landing zone, such as Andy Jackson Airpark.

b. Loss of Sites

In the past twenty years, most of the sites where hang gliding has been taught or practiced have been lost. In just the last ten years, the following sites listed in Appendix C have been lost in Los Angeles county alone because of real estate development and other causes.

Although SHGA holds a permit from the Forest Service to launch from Mount Wilson in the Angeles National Forest, for example, there is not a single permissible landing zone in the 45 square miles surrounding mile-high Mount Wilson. Effectively, development has eliminated Mount Wilson as a silent soaring site.

Because sites are so scarce, we believe that it is critical to the very survival of our sport that silent soaring be fostered at the few sites that remain.

VI. SILENT SOARING HAS VERY LIGHT IMPACT ON PUBLIC OR PRIVATE LANDS

Silent soaring is an activity that neither damages the land nor infringes on neighbor. Silent soaring poses no threat to wildlife. The only wildlife we affect are soaring birds, and our only effect is that we sometimes share rising thermal currents, soaring aloft with them naturally.

Silent soaring does not physically degrade the land, as do hiking, bicycling, off-road motoring, skiing, snowmobiling, fishing and hunting to various degrees.

Silent soaring poses no threat to riparian areas. Wet areas absorb the sun's energy and do not produce thermals, as do bare rocks and earth. Consequently soaring pilots generally have no reason to be near riparian areas.

Silent soaring produces no conflicts with other users. It makes no noise, and emits no exhaust, smoke, dust or vapors of any kind. As a recreational land use, silent soaring has no similarity to noisy, polluting, destructive off-road vehicles, such as snowmobiles, dirt motorcycles and all-terrain vehicles, which are being specifically accommodated in Southern California.

Not only is the impact light when silent soaring is going on, but the number of soaring pilots is small, and the times when atmospheric conditions permit soaring are limited. Silent soaring is possible only on days when the atmospheric conditions are right, and then, only during limited times of day. There are very few "ridge lift" sites, where the lift is produced by a steady wind blowing at a right angle to the hill.² At most sites including Crestline and Marshall, the only source of lift is thermal currents. Because thermals do not develop until the sun has heated the ground for a number of hours, it is usually impossible to soar in thermals before about 11:00 a.m. on a summer day, or before 1:00 p.m. in winter. Thermal lift is not needed for many training flights, which can be flown earlier or later in the day. Although expert pilots are those who can stay aloft longer, flights average about an hour. Consequently, there is a very narrow "window" of time when soaring takes place each day, between 11:00 a.m. and sundown, and then only on days that are suitable.

On a day when it is possible to fly at either of the Palmdale sites, when the Santa Ana winds are blowing from the northeast into Portal Ridge, all the sites on the south slopes of the San Gabriel and San Bernardino Mountains are unflyable, because the wind is blowing down the slope, rather than up.

VI. LIABILITY PROTECTIONS

Landowners in California, public and private, are protected in several ways against any liability for any injuries to persons or damage to property that may be caused by silent soaring. They are protected from any liability to participants by specific provisions of California law which protect landowners from liability to persons who are permitted to use land for recreational purposes, as well as by releases of liability that are signed by all participants. In addition, landowners are protected against any injury to themselves or their property by \$1 million in insurance, carried by the United States Hang Gliding Association.

California Recreational Use Immunity – Civil Code Section 846

Hang gliding poses no liability risk to landowners who permit it for several reasons. First because California law (Civil Code § 846) expressly immunizes any landowner (including government entities) from any liability to a person who is allowed to use the landowner's property at no cost, for recreational purposes. The statute expressly and specifically includes hang gliding. The policy of California is to encourage landowners to permit the use of their land for recreational purposes, by shielding them from the normal "premises" liability of landowners, so long as they are not exacting the payment of money for the recreational use of their land. Thus, all landowners, including Federal Agency landowners, are protected from any suit by a hang glider pilot for any injury or property damage that may occur because he or she is permitted

² There are two ridge-lift sites outside the Angeles National Forest in Palmdale, on Portal Ridge, where northeast Santa Ana winds produce ridge lift. In winter 2000, private landowners closed access to the Avenue L site because of vandalism, and unauthorized dumping and shooting.

to use Federally owned land for the purpose of hang gliding. Judicial decisions have expressly applied the protections of Section 846 to the Forest Service.³ Secondly, every person holding a pilot rating from the United States Hang Gliding Association has executed a waiver that releases anyone from any liability to the pilot for any injury or claim of any kind relating to hang gliding.⁴ That waiver contains a covenant not to sue, and an attorney fee provision, requiring any pilot who does sue to pay the attorney fees of the party he sues.

VIII. **CONCLUSIONS**

Silent soaring is a historical Southern California recreational land use that has a very light impact, and which has virtually no effect on neighboring landowners.. This use should be preserved and fostered by preventing land development from choking our sport out of existence.

Respectfully submitted:



Lawrence W. Chamblee,
Acting President

August 29, 2008

³ Hannon v. U.S., 801 F.Supp. 323 (E.D. Cal. 1992). A fuller legal brief of this issue, previously presented to the Inyo National Forest Ranger, is attached as Appendix E.

⁴ A copy of the USHPA waiver and assumption of risk is attached as Appendix F.

Appendix A

Los Angeles County Sites Lost

1. Simi Valley training hill. – Real estate development 1992
2. Agua Dulce training hill– Real estate development 1993
3. Sand Canyon training hill– Real estate development 1993
4. Chatsworth training hill. – Real estate development 1995
5. Trancas Canyon launch – Real estate development 1994
6. Avenue L launch– Real estate development 1996
7. Big Tujunga launch –Forest Road closed 1984
8. Sylmar 1500 Launch – Forest Road closed 1984
9. Sylmar 1500 LZ – Real estate development 1984
10. Olive View Hospital LZ – Real estate development 1989

Appendix B

California Civil Code

§ 846 Use of property for recreational purposes

An owner of any estate or any other interest in real property, whether possessory or nonpossessory, owes no duty of care to keep the premises safe for entry or use by others for any recreational purpose or to give any warning of hazardous conditions, uses of, structures, or activities on such premises to persons entering for such purpose, except as provided in this section.

A “recreational purpose,” as used in this section , includes such activities as fishing, hunting, camping, water sports, hiking, spelunking, **sport parachuting**, riding, including animal riding, snowmobiling, and all other types of vehicular riding, rock collecting, sightseeing, picnicking, nature study, nature contacting, recreational gardening, gleaning, **hang gliding**, winter sports, and viewing or enjoying historical, archaeological, scenic, natural, or scientific sites.

An owner of any estate or any other interest in real property, whether possessory or nonpossessory, who gives permission to another for entry or use for the above purpose upon the premises does not thereby

- (a) extend any assurance that the premises are safe for such purpose, or
- (b) constitute the person to whom permission has been granted the legal status of an invitee or licensee to whom a duty of care is owed, or
- (c) assume responsibility for or incur liability for any injury to person or property caused by any act of such person to whom permission has been granted except as provided in this section.

This section does not limit the liability which otherwise exists

(a) for willful or malicious failure to guard or warn against a dangerous condition, use, structure or activity; or

(b) for injury suffered in any case where permission to enter for the above purpose was granted for a consideration other than the consideration, if any, paid to said landowner by the state, or where consideration has been received from others for the same purpose; or

(c) to any persons who are expressly invited rather than merely permitted to come on the premises by the landowner.

Nothing in this section creates a duty of care or ground of liability for injury to person or property.

[Emphasis added.]

Appendix C

RELEASE, WAIVER AND ASSUMPTION OF RISK AGREEMENT

In consideration of the benefits to be derived from membership in the USHPA, _____ (Pilot) and the parent or legal guardian of Pilot, if Pilot is a minor, for themselves, their personal representatives, heirs, executors, next of kin, spouses, minor children and assigns, do agree as follows:

- A. DEFINITIONS - The following definitions apply to terms used in this Agreement:
1. "PARTICIPATION IN THE SPORT means launching (and/or assisting another in launching), flying (whether as pilot in command or otherwise) and/or landing (including, but not limited to, crashing) a hang glider or paraglider.
 2. "SPORTS INJURIES' means personal injury, bodily injury, death, property damage and/or any other personal or financial injury sustained by Pilot as a result of Pilot's PARTICIPATION IN THE SPORT and/or as a result of the administration of any USHPA programs (for example: the Pilot Proficiency System). If Pilot is under 18 years of age, the term "SPORTS INJURIES' means personal injury, bodily injury, death, property damage and/or any other personal or financial injury sustained by Pilot as well as personal injury, bodily injury, death, property damage and/or any other personal or financial injury sustained by Pilot's parents or legal guardians, as a result of Pilot's PARTICIPATION IN THE SPORT and/or as a result of the administration of any USHPA programs.
 3. "RELEASED PARTIES' means the following, including their owners, officers, directors, agents, spouses, employees, officials (elected or otherwise), members, independent contractors, sub-contractors, lessors and lessees:
 - a) The United States Hang Gliding Association, a California Non-profit Corporation (USHPA);
 - b) Each of the person(s) sponsoring and/or participating in the administration of Pilot's proficiency rating(s);
Each of the hang gliding and/or paragliding organizations which are chapters of the USHPA;
 - d) The United States Of America and each of the city(ies), town(s), county(ies), State(s) and/or other political subdivisions or governmental agencies within whose Jurisdictions Pilot launches, flies and/or lands;
 - e) Each of the property owners on or over whose property Pilot may launch, fly and/or land;All persons involved, in any manner, in the sports of hang gliding and/or paragliding at the site(s) where Pilot PARTICIPATES IN THE SPORT "All persons involved" include, but are not limited to, spectators, hang glider and/or paraglider pilots, assistants, drivers, instructors, observers, and owners of hang gliding and/or paragliding equipment; and
 - g) All other persons lawfully present at the site(s) during Pilot's PARTICIPATION IN THE SPORT.

B. I FOREVER RELEASE AND DISCHARGE the RELEASED PARTIES from any and all liabilities, claims, demands, or causes of action that I may hereafter have for SPORTS INJURIES, however caused, even if caused by the negligence (whether active or passive) of any of the RELEASED PARTIES, to the fullest extent allowed by law.

C. I WILL NOT SUE OR MAKE A CLAIM against any of the RELEASED PART/ES for loss or damage on account of SPORTS INIURIES.
If I violate this agreement by filing such a suit or making such a claim, I will pay all attorneys' fees and costs of the RELEASED PARTIES

D. I AGREE THAT this AGREEMENT shall be governed by and construed in accordance with the laws of the State of California. All disputes and matters whatsoever arising under, in connection with or incident to this Agreement shall be litigated, if at all, in and before a Court located in the State of California, U.S.A. to the exclusion of the Courts of any other State or Country.

E. SEVERABLILITY. If any part, article, paragraph, sentence or clause of this Agreement is not enforceable, the affected provision shall be curtailed and limited only to the extent necessary to bring it within the requirements of the law, and the remainder of the Agreement shall continue in full force and effect.

F. I REPRESENT THAT Pilot is at least 18 years of age, or, that I am the parent or legal guardian of Pilot and am making this agreement on behalf of myself and Pilot. If I am the parent or legal guardian of Pilot I AGREE TO INDEMNIFY AND REIMBURSE the RELEASED PARTIES for their defense and indemnify from any claim or liability in the event that Pilot suffers SPORTS INJURIES as a result of Pilot's PARTICIPATION IN THE SPORT, even if caused in whole or in part by the negligence (whether active or passive) of any of the RELEASED PARTIES

G. I VOLUNTARILY ASSUME ALL RISKS, KNOWN AND UNKNOWN, OF SPORTS INJURIES, HOWEVER CAUSED, EVEN IF CAUSED IN WHOLE OR IN PART BY THE ACTION, INACTION, OR NEGLIGENCE OF THE RELEASED PARTIES, TO THE FULLEST EXTENT ALLOWED BY LAW.

I have read, understand, and agree to the above RELEASE, WAIVER AND ASSUMPTION OF RISK AGREEMENT.

Adult Pilot's signature

Date

Signature of Pilot's Parent or legal Guardian if Pilot under 18 years of age

Date

MMR12-97

Letter CC – Sylmar Hang Gliding Association

Response to Comment CC-1

It is an unfortunate result of suburban and urban development that hang gliding and parasailing landing sites are being lost in southern California. However, both the Department of Water Resources, who leases the airpark site, and CSS are largely responsible for resolving this dispute since they were both clearly aware of the potential conflict when the location of the airpark was approved back in 1993, which was after approval of residential development on the University Hills site.

Response to Comment CC-2

The issue of conflicts between the airpark landing zone and future homes in the University Hills project are addressed in detail in Response G-4 to the letter from the Crestline Soaring Society (CSS). That discussion includes several possible solutions and a mitigation measure that will prevent conflicts until the airspace issue can be ultimately resolved by the Federal Aviation Administration (FAA) and/or the State Department of Water Resources (DWR).

Response to Comment CC-3

The City acknowledges that the airpark generates indirect economic benefits for the City, however, it must also be noted the airpark appears to operate in violation of City Development Code Section 12.88, Hang Gliding, which prohibits non-motorized flight over areas within the City unless approved by the City. According to available information, the operations of the Andy Jackson Airpark has never been approved or authorized by the City under DC 12.88.

Response to Comment CC-4

The City understands the interests and concerns of the SHGA are similar to those of the Crestline Soaring Society (CSS). Responses to comments raised by the CSS are addressed in Responses G-1 through G-4.

Response to Comment CC-5

The City understands that hang gliding and paragliding are relatively silent or quiet recreational activities, and that these activities do not create substantial impacts upon the land. The issue of low impact or affect upon adjacent neighbors is addressed in Response G-4 to the letter from the Crestline Soaring Society (CSS). That discussion includes several possible solutions that will prevent conflicts until the airspace issue can be ultimately resolved by the Federal Aviation Administration (FAA) and/or the State Department of Water Resources (DWR).

Response to Comment CC-6

For the purposes of this discussion, the City accepts the definitions included in this section.

Response to Comment CC-7

For the purposes of this discussion, the City generally accepts the historical information and the description of applicable federal regulations in this section.

Response to Comment CC-8

For the purposes of this discussion, the City accepts the description of launch site criteria in this section as generally applicable to the Andy Jackson Airpark site.

Response to Comment CC-9

For the purposes of this discussion, the City accepts the description of nearby landing zone characteristics in this section as generally applicable to the Andy Jackson Airpark site.

Response to Comment CC-10

It is an unfortunate result of suburban and urban development that hangs gliding and paragliding landing sites are being lost in southern California. However, both the Department of Water Resources, who leases the airpark site, and CSS are largely responsible for resolving this dispute since they were both clearly aware of the potential conflict when the location of the airpark was approved back in 1993, which was after approval of residential development on the University Hills site.

Response to Comment CC-11

The City agrees that the actual flying activities of hang gliding and paragliding has or would have little or no impacts on the land or local residents. However, the main concern is public safety (i.e., property damage, human injury, or death) when pilots fly over inhabited areas and have accidents or crashes involving the general public or inhabited structures. The issue of conflicts between the airpark landing zone and future homes in the University Hills project are addressed in detail in Response G-4 to the letter from the Crestline Soaring Society (CSS). That discussion includes several possible solutions that will prevent conflicts until the airspace issue can be ultimately resolved by the Federal Aviation Administration (FAA) and/or the State Department of Water Resources (DWR).

Response to Comment CC-12

For the purposes of this discussion, the City accepts the description of weather and flying conditions as they generally apply to the Andy Jackson Airpark site.

Response to Comment CC-13

While this type of liability coverage may be adequate for isolated accident conditions, it is unclear what level of liability the City and/or the developer of the University Hills project would have if the residential development were approved and constructed, with all parties aware there could be conflicts, and eventually an accident could occur that resulting in property damage, injury, or death. The issue of conflicts between the airpark landing zone and future homes in the University Hills project are addressed in detail in Response G-4 to the letter from the Crestline Soaring Society (CSS).

That discussion includes several possible solutions that will prevent conflicts until the airspace issue can be ultimately resolved by the Federal Aviation Administration (FAA) and/or the State Department of Water Resources (DWR).

Response to Comment CC-14

Despite this additional information regarding liability, the previous Response CC-13 in this letter and Response G-4 to the letter from the Crestline Soaring Society (CSS) provide discussion of issues related to public and pilot safety as they relate to the University Hills project.