The extraordinary amount of volunteer hours, research and consultation with experts that has been mustered to oppose the misguided proposals of the Moon Camp Project represent a far worthier and more reliable testimony to the adverse impacts of this project than does the Draft EIR. Certainly equivalent amounts of time, expertise and expense as went into the EIR have likewise been invested by citizens in the cause of placing before the County a strong and irrefutable case that the existing General Plan guidelines ought to be adhered to and not reversed, thus aiding the County in making the right decision. Maintaining the status quo is in the best interest of the public, for its safety, well-being and continued protections of a priceless National Forest. The County could not ask for better advocates and reminders of its highest duty. 16-12

For all of the above reasons, the San Bernardino Valley Audubon Society strongly encourages the County to deny the Moon Camp Project proposal.

We thank you for your consideration of these comments.

Sincerely,

Dorothy Myers
President

7

Response to Commentor No. 16
Dorothy Myers, San Bernardino Audubon Society
May 17, 2004

16-1 The County will consider the Commentor's opinion during their deliberation on the project.

16-2 Commentor refers to the Project's consistency with the General Plan. Please refer to Response to Comment Nos. 13-8 to 13-22, which address this concern.

16-3 Commentor refers to fire risks associated with project implementation. Please refer to Response to Comment Nos. 4-1, and 13-27 to 13-36, which address this concern.

16-4 Commentor refers to the urban/forest interface and the increased fire risk associated with project implementation. Please refer to Response to Comment Nos. 4-1, and 13-27 to 13-36, which address these concerns.

16-5 Commentor refers to the Project's consistency with the General Plan. Please refer to Response to Comment Nos. 13-9 to 13-22, which address this concern. The County will consider the Commentor's opinion during their deliberation on the project.

16-6 Commentor refers to impacts associated with the proposed highway realignment. Please refer to Response to Comment Nos. 13-12, 13-16, 13-20 and 13-21, which address land use concerns. Also, refer to Response to Comment Nos. 13-51 to 13-57, which address aesthetic concerns; refer to Response to Comment No. 13-65 for traffic concerns; and Response to Comment Nos.13-95 and 13-96, which address bald eagle concerns. The County will consider the Commentor's opinion during their deliberation on the project.

16-7 Commentor refers to impacts to the bald eagle. Refer to Response to Comment Nos. 3-7, 13-86, 13-88, 13-95 and 41-14, which address these concerns. The County will consider the Commentor's opinion during their deliberation on the project.

16-8 Commentor refers to water supply and cumulative affects to groundwater. Refer to Response to Comment Nos. 1-4 and 1-5, which address this concern. The County will consider the Commentor's opinion during their deliberation on the project.

16-9 The "No Project/Existing Designation" Alternative would eliminate and/or reduce all environmental impacts from those anticipated for the proposed project. However, this alternative is not being considered as the "Environmentally Superior Alternative" for the reason that it does not meet the objectives established for the proposed project.

16-10 The Commentor is not specific, as to how the project would impact public services and infrastructure. The Draft EIR concluded that project implementation would result in unavoidable significant impacts regarding groundwater resources. Full-time occupation of the proposed residences is addressed in Response to Comment No. 13-7. The County will consider the Commentor's opinion during their deliberation on the project.

16-11 Commentor refers to potential fire hazards associated with project implementation. Please refer to Response to Comment Nos. 4-1, and 13-27 to 13-36, which address these concerns. The County will consider the Commentor's opinion during their deliberation on the project.

16-12 The County will consider the Commentor's opinion during their deliberation on the project.

RECEIVED
4/14/94
APR
LAND DEPT.
ADVANCE PLANNING DIVISION

I am writing to protest the Draft EIR for the Mooncamp Development Project RCK Properties Inc. I live on Barbara Lee Lane and do not see how "private enterprise" can have the scenic hwy 38 realigned (North Shore Drive) on the tentative tract map # 16136. The boat docks go in just as the road plans now - there is a marina next to it now which was Cluster Pines - This is a small community + we cannot water our lawns because of water shortages, now + sewer problems now crowd schools the Eagles line in this area along with other wild life. You should come up here + see this beautiful little town + you wouldn't want this - The Almighty Dollar is that what it is Again

Betty Conroy

17-1

I have lived in Fawnskin 34 years & love it - Our North Shore drive is beautiful to drive to Big Bear Lake we can see the lake in all its splender, Please do not let the "almighty Dollar" ruin a beautiful place.

17-1

Where is the water going to come from ? ? ?

Betty Conroy
39554 Barbara Lee Lane
P.O. 165
Fawnskin, Ca
92333

Response to Commentor No. 17
Betty Conroy
April 11, 2004

17-1 The Commentor has provided general comments regarding water shortage, schools, biological resources (eagles), and aesthetics (i.e., visual character, scenic highway) without specific references to the EIR analysis. Refer to Response to Comment Nos. 1-1 to 1-5 for impacts regarding water resources. The County will consider the Commentor's opinion during their deliberation on the project.

PEG ALLEN
P.O. BOX 23
FAWNSKIN, CA 92333
(909)878-4028

MR. MATTHEW W. SLOWIK
COUNTY OF SAN BERNARDINO
LAND USE SERVICES DEPARTMENT, PLANNING DIVISION
385 N ARROWHEAD AVE. FIRSR FLOOR
SAN BERNARDINO, CA 924105-0182

RE: DRAFT EIR FOR THE MOON CAMP DEVELOPMENT PROJECT/RCK PROPERTIES INC: GENERAL PLAN AMENDMENT/OFFICIAL LAND USE DISTRICT CHANGE FROM BV/RL-40 TO BV/RS-7200 AND AMENDMENT TO COUNTY CIRCULATION ELEMENT FOR REALIGNMENT OF NORTH SHORE DRIVE: TENTATIVE TRACT MAP #16136, AND CONDITIONAL USE PERMIT FOR A BOAT DOCK.

THANK YOU FOR THE OPPORTUNITY TO REVIEW THIS DOCUMENT. I, AS A HOME OWNER IN FAWNSKIN, OPPOSE THIS MOON CAMP PROJECT AS IT IS PRESENTLY PROPOSED BECAUSE THE DEIR FAILS TO ADEQUATELY EVALUATE THE TRUE IMPACT THIS PROPOSED PROJECT WOULD HAVE ON MY COMMUNITY.

MY HUSBAND AND I MOVED HERE TO GET AWAY FROM THE HUGE DEVELOPMENTS. THIS PROPOSED DEVELOPMENT WOULD TURN OUR SMALL FAWNSKIN INTO A NEWPORT BEACH. I HAVE SOME VERY BIG CONCERNS ABOUT THIS PROPOSED PROJECT.

WE ARE NOW AT STAGE 2 FOR WATERING. THERE ARE MILLIONS OF DEAD TREES ALREADY IN THE FOREST. IF THEY CONTINUE TO CUT OUR WATERING TIME, THE TREES ON MY PROPERTY WILL ALSO DIE. THERE ISN'T ADEQUATE WATER FOR THE PEOPLE WHO ALREADY LIVE HERE, HOW CAN THIS PROPOSED PROJECT ALOWING 92 MORE HOMES NOT MAKE OUR WATER SHORTAGE EVEN MORE SEVERE. THE DEIR IS DOWNPLAYING THE DROUGHT SITUATION. AS CURRENT HOME OWNERS WE ARE SUPPOSED TO JEPORDIZE OUR TREES SO A HUGE DEVELOPMENT CAN CONSUME THE WATER THAT SHOULD BE OURS. I DON'T THINK SO. A FEW HOMES BUILT AS SPECIFIED WITHOUT RE-ZONING WOULD BE ACCEPTABLE.
SPEAKING OF WATER, WHAT OF A FOREST FIRE. WATER IS NEEDED. THAT WATER WOULD COME FROM OUR DWINDLING WATER SUPPLY. 18-1

THE PROPOSAL TO STRAIGHTEN THE HIGHWAY FOR SAFETY SAKE IS RIDICULOUS. THE CURVED ROAD KEEPS THE SPEED DOWN. WITH A STRAIGHT HIGHWAY THERE WOULD BE A LOT MORE SPEEDING THROUGH THE AREA. 18-2

THERE ARE A COUPLE OF TREES IN THE MOON CAMP AREA THAT THE EAGLES SIT IN DURING THE WINTER. I LEAVE EARLY FOR WORK AND AT LEAST THREE TIMES A WEEK THE EAGLES ARE IN THESE TREES. THE NEW PROPOSAL DOWNPLAYS THE IMPORTANCE OF KEEPING THIS AREA IN TACT FOR THESE EAGLES. I WAS TOLD THAT AROUND 700 TREES WOULD BE ELIMINATED IN THE MOON CAMP AREA. THESE WOULD BE BOTH ALIVE AND DEAD TREES THAT WOULD BE FELLED. AS IT IS, THERE ARE 9 MILLION TREES IN OUR FOREST THAT ARE DEAD AND NEED TO BE ELIMINATED. FELLING TREES WHICH ARE NOT DEAD JUST TO SATISIFY SOMEONES GREED FOR BUILDING A HUGE DEVELOPMENT IS DISGUSTING. 18-3

WE IN FAWNSKIN WOULD NOT OBJECT TO KEEPING THE ZONING AS IS AND BUILD A FEW HOMES AS CURRENTLY ZONED FOR.
WE OBJECT TO THESE HUGE TRACTS WHICH DESTROYS THE PEACE AND TRANQUILITY OF OUR TOWN AS IT NOW IS. 18-4

WHEN THE ROAD IS CLOSED OVER THE DAM, ALL THE TRAFFIC WILL COME THROUGH FAWNSKIN. THIS WILL CAUSE MAJOR TRAFFIC PROBLEMS WITHOUT THE MOON CAMP DEVELOPMENT. I EXIT ONTO NORTH SHORE FROM CANYON. IF I HAD TO EVACUATE, IT WOULD BE NEXT TO IMPOSSIBLE TO GET OUT ONTO NORTH SHORE OR GET DOWN THE HILL. THE LAST EVACUATION TOOK 4 TO 5 HOURS TO GET TO LUCERNE VALLEY. WITH THIS MOON CAMP DEVELOPMENT, THERE WOULD BE MORE TRAFFIC AND IT WOULD TAKE LONGER TO EVACUATE. 18-5

WE ARE ALREADY HANDLING SHORTAGES IN ELECTRICITY. JUST LIKE THE WATER SITUATION, WE DO NOT RECEIVE ANY HELP FROM DOWN THE HILL. THE DEIR HAS DOWNPLAYED THE SIGNIFICANCE OF ADDED STRAIN ON OUR POWER SOURCE. WE HAVE HAD SEVERAL BROWN OUTS AND COULD EXPECT MANY MORE WITH THE ADDED STRAIN FOR MORE ELECTRICITY ON OUR LIMITED RESOURSES. 18-6

AS FAR AS POLICE PROTECTION, WE HAVE NONE OVER HERE AS IT IS. THERE ARE ONLY 3 OFFICERS FOR THE WHOLE VALLEY. BY THE TIME THE POLICE GOT THE CALL, IF THEY WEREN'T ALREADY ASSISTING IN BBL OR BBC, WHATEVER PROBLEM WAS OCCURING WOULD BE OVER WITH. WE ARE LAST ON THE LIST TO RECEIVE ASSISTANCE BECAUSE WE ARE FAR REMOVED DISTANCE WISE. 18-7

I LIVE ABOUT ½ MILE NORTH OF THE MOON CAMP AREA. RIGHT NOW IT IS VERY QUITE IN MY AREA. THERE ARE ONLY 2 FULL TIME RESIDENCES ON MY STREET. SINCE MOON CAMP IS DOWN THE HILL FROM ME, ALL THE NOISE WILL TRAVEL UP HILL AND MY QUITE WILL BE GONE. THERE WILL BE MORE DOGS BARKING AND PEOPLE NOISE. 18-8

TO SUM UP THE MOON CAMP DEVELOPMENT, IT WILL CAUSE UNDUE STREES ON EVERY ISSUE PRESENTED. UNFORTUNATELY

Peg Allen

Response to Commentor No. 18
Peg Allen
May 2004

18-1 It is the responsibility of the Project Applicant to prove that water resources are available to serve the project. Based upon the data available at the time of preparation of the EIR, the data suggested that there is not proof of water resources to support the proposed project. Thus, the EIR has concluded that impacts to groundwater resources are a significant adverse effect and until additional technical review is conducted to verify conditions, the project would result in an unavoidable impact. Although water conservation and/or drought–related measures to minimize water usage in Big Bear Valley have been implemented, if the Project Applicant provides future studies to indicate proof that water resources are available in the North Shore and/or Grout Creek Hydrologic Subunits and the Project Applicant has legal rights to the water, impacts to water resources could be determined to be less than significant. The project would be subject to all applicable water conservations measures per the direction of the water service provider (to be determined). Refer to Response to Comment Nos. 4-1, and 13-27 to 13-36 for impacts to fire protection services.

18-2 Commentor refers to safety hazards associated with the proposed highway realignment. Please refer to Response to Comment No. 13-65, which addresses this concern.

18-3 Commentor refers to impacts associated with tree removal and to the bald eagle. Please refer to Response to Comment No. 19-86, which addresses tree removal. Also, refer to Response to Comment Nos. 3-7, 13-88, 13-95 and 41-14, which address bald eagle concerns. The County will consider the Commentor's opinion during their deliberation on the project.

18-4 The County will consider the Commentor's opinion during their deliberation on the project.

18-5 Commentor refers to traffic impacts and affects to evacuation plans. Please refer to Response to Comment No. 13-32, which addresses this concern.

18-6 Commentor refers to current electric power shortages and the Project's impact to electric services. Please refer to Response to Comment No. 13-49, which addresses this concern.

18-7 Commentor refers to current police protection services and the Project's impact to police services. Please refer to Response to Comment Nos. 13-38 to 13-40, which address this concern.

18-8 Commentor refers to the proposed residential uses affecting current noise levels. Please refer to Response to Comment Nos. 13-80 to 13-85, which address this concern.

COMMENT NO. 19

P.O. Box 409
Fawnskin, CA 92333
May 3, 2004

County of San Bernardino
Land Use Services Department, Planning Division
385 N. Arrowhead Ave, First Floor
San Bernardino, CA 92415-0182

ATTENTION: Matthew W. Slowik, Senior Associate Planner
Advance Planning Division

RE: Draft Environmental Impact Statement for the Mooncamp Development, Tentative Tract Map # 16136

Dear Mr. Slowick:

We have reviewed the draft EIR for the Moon Camp development, tentative tract map #16136 and wish to provide public comments on it. Our area of expertise is air quality, atmospheric chemistry and air pollution. Between us, we have almost 90 years of experience in this area, and have written two books on the subject in addition to hundreds of scientific articles in peer-reviewed scientific journals. Attached are comments on the air quality section of the EIR. We believe that it is seriously deficient in a number of respects as detailed there.

As just one example, we attach copies of two photographs taken from Fawnskin overlooking Moon Camp on a typical winter morning; note the substantial reduction in visibility due to wood smoke trapped beneath the inversion layer. There is a state standard for visibility, yet this is not addressed in the EIR. More important are the effects of the particles that are responsible for the visibility reduction, and the associated pollutants, on human health, again not treated in the EIR. 19-1

Even in its present deficient state, the EIR finds that there are both short and long-term air quality impacts of the project that are "....considered significant and cannot be mitigated to a less than significant level" (See Executive Summary of EIR). When the issues we have raised (see attached) are taken into account, it is clear that the impacts will be even more severe. We urge the Planning Commission and the Board of Supervisors **not** to approve this development. 19-2

Yours truly,

Barbara J. Finlayson-Pitts

Barbara J. Finlayson-Pitts, Ph.D.

James N. Pitts, Jr.

James N. Pitts, Jr., Ph.D.

cc: Planning Commission: T. Kwappenberg, E. Laning, M. Cramer, M. Dowling, A. Matthews
Board of Supervisors: D. Hansberger, B. Posthumus, P. Biane, P. Aguiar, C. Young

Trapping of Pollutants Below the Inversion in Big Bear

View from Flicker Dr. around 9 a.m.

- Note top of inversion layer is very low; this concentrates pollutants, leading to larger human exposures

- Loss of visibility is due to particles; other pollutants also trapped but are invisible

View of Particles Trapped Under Inversion Layer

- Note inversion covers entire valley
- Emissions of air pollutants in one location are distributed throughout the valley and beyond

From North Shore Drive West of Fawnskin around 8 a.m. on a typical winter morning

COMMENTS ON AIR QUALITY PART (SECTION 5.6) OF EIR FOR MOON CAMP (Tentative Tract Map #16136)

Barbara J. Finlayson-Pitts and James N. Pitts Jr.

May 3, 2004

The air quality analysis section is inadequate in a number of areas:

1. It does not include either dispersion or photochemical modeling to predict the impact of the project on the concentrations of pollutants that will actually occur in the air in Big Bear Valley, nor the formation of toxic *secondary* pollutants *formed* by chemical reactions in air, e.g. ozone. The EIR simply uses an emissions model to calculate the number of pounds per day of *primary* pollutants that will be emitted *directly* by the project, and compares these to regional threshold values given in South Coast Air Management District (SCAMD) "look-up tables". The EIR does not treat what this means in terms of increases in actual air pollutant concentrations in the air that people breathe. For example, it states that "CO tends to be a localized pollutant, dispersing rapidly at the source" (pg. 5.6-16). This is not correct, particularly if there is an inversion which occurs more often than not in the mornings at the project site. This would be readily apparent if dispersion modeling were carried out. This is not an esoteric argument; in fact, the South Coast Air Management District (SCAMD) states that "project-specific modeling is recommended for projects larger than five acres", which applies to the proposed project (see www.aqmd.gov/hb/031034a.html). Furthermore, the SCAMD states that the "look-up tables" [are to be used] only for projects that are less than or equal to five acres... [and]... are applicable only to projects with emissions sources at a fixed location.... are not applicable to mobile sources traveling over local roadways". **19-3**

Furthermore, the EIR completely omits treatment of even the emissions of three important air pollutants: SO_x, lead and toxic air contaminants (TACs). In the latter case for example, the threshold specified by the SCAMD is a maximum incremental cancer risk that is $\geq$ 10 in 1 million. The EIR does not identify the increased carcinogens that will be associated with the project and does not assess their impact against such a standard. **19-4**

Similarly, while the EIR acknowledges the importance of secondary pollutants (e.g. ozone) which have major health impacts, it does not quantitatively treat their formation and associated concentrations in air that arise due to the reactions in air of the emissions of organics and oxides of nitrogen from the project. Again this requires project-specific modeling to take into account such factors as increased UV at the high elevations, which will lead to enhanced photochemical activity. **19-5**

2. The EIR does not adequately address the impacts of the increased wood smoke emissions from fireplaces and wood stoves. These include both health (discussed in the next point) and visibility. On page 5.6-3 for example, the "haziness" is being described as being due to "moisture, suspended dust and a variety of chemical aerosols emitted by trucks, automobiles, furnaces and other sources". Wood smoke, the major source in Big Bear Valley for much of the year, is not mentioned. The climate is very dry so that **19-6**

particle growth into the light-scattering range by water uptake is not a major factor in this area, and there are relatively few sources of airborne dust particles. 19-6

Table 5.6-1 does not include California's standard for visibility reducing particles, the current levels in Big Bear Valley and how the project would impact this. In addition, it does not address these same issues with respect to the California annual standard for PM_{10} (20 $\mu g\ m^{-3}$ annual arithmetic mean). While California does not have a 24 hour $PM_{2.5}$ standard at this time (the EIR incorrectly shows one), it does have an annual arithmetic mean of 12 $\mu g\ m^{-3}$ which is not specifically addressed with respect to the impacts of the project. 19-7

3. The serious impacts of the project on health are not adequately addressed in the EIR. This is of particular concern with respect to fine particles ($PM_{2.5}$) from diesels and from wood combustion. For example, Table 5.6-2 shows a number of effects of PM_{10} but does not address the more important issue of $PM_{2.5}$. Impacts summarized in Table 5.6-3 to 5.6-5 and the associated discussion of impacts do not address $PM_{2.5}$ at all. $PM_{2.5}$ should be included in all of the assessments of short-term and long-term impacts. Not only the numbers in terms of pounds per day of emissions, but the projected increases in the actual concentrations in air and the impacts on health and visibility should be included. 19-8

Furthermore, the EIR omits the most important effect which cannot be mitigated (at least for those impacted) and that is increased mortality. It is the increase in deaths due to particles that form the basis for the most recent particle standards [e.g. see Colburn and Johnson, *Science*, 299 665 (2003)]. In addition to increased mortality from all causes, there are a number of studies that show increased rates of lung cancer mortality [e.g., Pope et al, *J. Am. Med. Assoc.* 287 1132 (2002)]. This is particularly relevant for the proposed project because the increase in particles is projected to come from diesels during the construction phase and wood smoke after the homes are built. The EIR acknowledges the health effects of wood smoke on page 5.6-17: "The U.S. EPA estimates the cancer risk from wood smoke is twelve times greater than that from equal amounts of tobacco smoke". However, this is not translated into a quantitative assessment of the impacts of the proposed project. In addition, while increased emissions of toxic air contaminants associated with wood smoke and diesel exhaust are briefly acknowledged, these are again not treated in the EIR, despite a significant scientific literature on this subject. 19-9

5. Emissions of toxic air contaminants, TACs (California)/hazardous air pollutants, HAPs (federal) from all of the sources associated with the project, both mobile sources and stationary sources, are not treated adequately, despite existing standards for TACs/HAPs. 19-10

6. The EIR acknowledges the issue of "sensitive receptors" such as children at schools, patients in the hospital etc (page 5.6-11). However, the analysis of the impact of the project on such sensitive receptors is inadequate. For example, all eastbound traffic due to the project will unavoidably pass immediately adjacent to North Shore Elementary School at the intersection of North Shore Drive and Stanfield cutoff. The analysis in Table 5.6-6 is not at all clear. What would the increase in the concentration of CO be in air that the students actually breathe? Perhaps more important, what would the increase 19-11

be in PM_{10} and $PM_{2.5}$, particularly diesel particles which contain known carcinogens? What impact would changing the traffic assumptions have on these calculations? For example, the traffic analysis uses values for the lane capacity that represent ideal dry conditions; these are wildly optimistic for snowy or icy road conditions, or in the event of evacuations as occurred last fall during the fires. In addition, given the more rapid growth of the inland empire, the assumption of a constant rate of growth of traffic is dubious at best. 19-11

7. The use of "significant contribution to regional air pollution" (e.g. Table 5.6-3 to 5.6-5) is irrelevant to the impacts of the project on residents and visitors to Big Bear Valley. The project is located at high altitude in a valley that receives some air pollutants from transport from the much larger portion of the air basin at low elevations to the west. However, the local meteorology is such that the valley itself is a mini-air basin with frequent, low-level inversions over the valley itself, independent of what happens "down the hill". The comparison of projected emissions estimates in Table 5.6-7 to those of the entire basin is therefore irrelevant. Furthermore, as discussed above, SCAMD expects project-specific modeling for projects larger than 5 acres, not just total emissions estimates. In addition, the extrapolation to 2020 appears to be based on a linear extrapolation, which is not justified and is dubious at best. However, we note that even the comparisons to the SCAMD thresholds that the EIR did do shows they are exceeded for a number of pollutants both during construction and long term (Tables 5.6-4 and 5.6-5). 19-12

8. The mitigation measures cited include the use of EPA certified fireplaces and the use of a catalytic converter on the chimneys. However, there is no legal mandate to do so and hence assuming that this will happen is highly dubious. 19-13

9. Page 5.6-18 describes future hydrocarbon emissions standards for watercraft. However, it is not clear if these were included in the emissions estimates, or if they were, if it was assumed that all watercraft associated with the project would meet these new standards. This would be equivalent to assuming that the project residents would be continuously purchasing new boats as the standards changed, a highly unlikely scenario. Furthermore, there is no treatment of emissions other than hydrocarbons from watercraft, and the associated impacts on air quality. 19-14

10. The assumptions in the emissions calculations are not justified adequately. For example, a temperature range of 30 to 90^0 F appear to have been used; temperatures in the winter at the project site are frequently well below 30^0 F but rarely reach 90^0 F in the summer. 19-15

11. The description of the impact of temperature inversions on air pollutants (page 5.6-2) is not correct. While a low inversion height does prevent good vertical mixing and hence leads to higher concentrations at ground level, the mountain slopes actually provide a "chimney effect" in which the heated slopes cause the polluted air at the lower elevations to be sucked up along the mountain slopes to higher elevations. This leads to a significant impact of the South Coast air basin emissions on air quality in the mountains, and is why the data shown in Table 5.6-1 of the EIR shows that Crestline exceeds both 19-16

the state and federal air quality standards for ozone many days a year. The project impacts need to be viewed as being in addition to this effect. 19-16

12. Footnote 5 to Table 5.6-1 needs to be clarified. If particle standards are set for 24 hours, is the number of exceedances not based on the number of days in which the measured levels are above the standards, rather than the "number of samples exceeded"? If it were the latter and samples were taken once a week for example, then one could not obtain exceedances more than once a week, even if the levels were above the standard every day! 19-17

13. Footnote 2 to Table 5.6-5 is unclear. What does "25 % utilization of outdoor wood burning stoves" mean? 19-18

14. Page 5.6-3. The new 8 hour federal standard for ozone has been implemented. 19-19

Response to Commentor No. 19
Barbara J. Finlayson-Pitts, Ph.D. and James N. Pitts, Jr., Ph. D.
May 3, 2004

19-1 Visibility can be defined as the distance that atmospheric conditions permit a person to see at any given time. Technically, visibility is defined as the farthest distance an observer can distinguish a large black object against the horizon. Reduced visibility causes aesthetic impairment of surroundings and also interferes with aircraft operations. The State standard for Visibility Reducing Particulates is when the project "Reduces visual range to less than 10 miles at relative humidity less than 70 percent, 8-hour average (9:00 a.m. – 5:00 p.m.)." This criterion was stated within Table 5.6-2, *Air Pollution Sources, Effects and Standards.* The greatest contribution to visibility reduction in the Basin is from light scattering by "fine particle" aerosols with the size range of 0.1 to 2 microns (a micron is one-millionth of a meter). Additionally, refer to Response to Comment No. 19-7.

19-2 This comment does not raise a new environmental issue. Comment is noted and will be considered by the County of San Bernardino during their deliberation on the project.

19-3 The air quality analysis utilized the suggested methodology in the South Coast Air Quality Management District (SCAQMD) *CEQA Air Quality Handbook* (April 1993, as updated November 1993). Currently, the SCAQMD CEQA Air Quality Handbook Revision (Air Quality Analysis Guidance handbook) is still being developed by the SCAQMD. To estimate emissions from criteria pollutants, the analysis utilized the URBEMIS2002, EMFAC2002 and CALINE4 models, as recommended by the SCAQMD.[2] The results of the air quality computer modeling were then compared to the SCAQMD thresholds of significance, as contained within Chapter 6 of the *CEQA Air Quality Handbook*. The SCAQMD "look-up tables" were not utilized, as they are not recommended for Environmental Impact Reports, and are based on an outdated version of the Emissions Factor Model (EMFAC7G). The computer modeling utilized in the Moon Camp analysis was based on the latest iteration of the model (EMFAC2002).

By utilizing the SCAQMD methodology for computer modeling for primary criteria pollutants, secondary pollutants are innately addressed. The URBEMIS2002 computer model predicts concentrations of Sulfur Oxides (SO_x), Nitrogen Oxides (NO_x), Carbon Monoxide (CO), Reactive Organic Gases (ROG) and Particulate Matter (PM_{10}). The URBEMIS2002 model is also designed to predict criteria pollutant concentrations for particular climates and terrain (for example the modeling for Moon Camp utilized the "Mountain Counties and Rural Counties" option). The thresholds of significance, as outlined in Chapter 6 of the *CEQA Air Quality Handbook* are designed to limit the amount of primary pollutants, as well as the formation of secondary pollutants (i.e., the formation of ozone resulting from the presence of sunlight and oxygen (O_2) reacting with nitrogen oxides (NO_X) and volatile organic compounds (VOCs)). Additionally, it should be noted that most Ozone destruction takes place through catalytic processes rather than Chapman Reactions

[2] http://www.aqmd.gov/ceqa/models.html

(Ozone is a highly unstable molecule that readily donates its extra oxygen molecule to free radical species such as nitrogen, hydrogen, bromine, and chlorine). These compounds naturally occur in the stratosphere, released from sources such as soil, water vapor, and the oceans. Meanwhile, the destruction of ozone by the free radicals goes on continuously. That is why O_3 concentrations will be higher during the day and lower at night.

It should also be noted that localized dispersion modeling was conducted for Carbon Monoxide with the SCAQMD approved CALINE4 model. CALINE4 is the standard modeling program used by the California Department of Transportation (Caltrans) to assess Carbon Monoxide impacts near transportation facilities. It is based on the Gaussian diffusion equation and employs a mixing zone concept to characterize pollutant dispersion over the roadway. The other SCAQMD approved dispersion model, Industrial Source Complex Dispersion Model (ISCST3), provides options to model emissions from sources that might be present at a typical industrial source complexes. The basis of the model is the straight-line, steady-state Gaussian plume equation, which is used with some modifications to model simple point source emissions from stacks, emissions from stacks that experience the effects of aerodynamic downwash due to nearby buildings, isolated vents, multiple vents, storage piles, conveyor belts and the like. This type of use is not anticipated at the Moon Camp project site, thus it was not utilized in the analysis. Photochemical modeling, such as the Variable Grid Urban Airshed Model program, was not utilized in the analysis as the SCAQMD does not require this type of modeling for residential and recreational land uses.

19-4 Sulfur Oxide (SO_x) emissions were quantified in the URBEMIS2002 modeling. The results were not included in the text as the South Coast Air Basin has been in attainment for SO_x for many years. Additionally, SO_x levels have not exceeded the National or State Ambient Air Quality Standards (AAQS) at any of the SCAQMD monitoring stations in the past five years. SO_x levels arising for project related emissions would only be 0.11 pounds/day in the summer and 1.88 pounds/day in the winter, well below the SCAQMD threshold of 150 pounds/day.

Lead is not expected to be a pollutant of concern at the project site. The project does not propose any land uses that would typically utilize large amounts of lead (i.e., manufacturing or industrial facilities). The primary source of lead in the project area would be from vehicles. However, most vehicles in current operation utilize oxygenated unleaded gasoline, which has lead to the steady decrease of lead in the in the South Coast Air Basin. Thus the project is not expected to exceed the state threshold of 1.5 $\mu g/m^3$ per 30-day average.

As noted above, the project does not propose any uses that would release acute amounts of Toxic Air Contaminants (i.e. manufacturing or industrial facilities). California regulates toxic air contaminants through its air toxics program, mandated in Chapter 3.5 (Toxic Air Contaminants) of the Health and Safety Code (H&SC Section 39660 et. seq.) and Part 6 (Air Toxics "Hot Spots" Information and Assessment). However, as the project proposes 92 residential units and a marina slip configuration for recreational boater activity, Toxic Air Contaminants are not expected to be a significant source of pollution from project operations. Health Risk Assessments (HRA) for Diesel Particulate Matter (DPM) are typically conducted for

areas that would expose sensitive receptors to high concentrations of DPM over a long period of time. Per a telephone conversation with Steve Smith, the Program Supervisor of the CEQA Section at the SCAQMD (June 30, 2004), estimating cancer risk for DPM is not required for construction activities because construction activities would only occur for a short period of time and therefore would not measurably increase cancer risk. Estimating individual cancer risk from DPM would only be necessary if activities that result in the release of DPM would last for seven or more years. The proposed project would not require a Health Risk Assessment for DPM because it would not expose sensitive receptors to excessive DPM for a long period of time.

19-5 Commentor refers to secondary pollutants and affects to air quality. Please refer to Response to Comment No. 19-3, which addresses this concern.

19-6 Impact Statement 5.6-2, *Long-Term Operational Impacts*, discusses and quantifies emissions that are anticipated to result from the residential wood burning fireplaces at the project site. The URBEMIS2002 model conservatively estimated eight hours of wood burning use during the winter months for all 92 residential units using a fireplace and 23 units using an outdoor wood-burning stove. The assumptions are conservative and are considered worst case.

19-7 Table 5.6-2, *Air Pollution Sources, Effects and Standards*, identifies the state standard for visibility reducing particulates. The standard was not included in Table 5.6-1, *Local Air Quality Levels*, as neither the SCAQMD nor the California Air Resources Board (CARB) currently monitors visibility.[3] Page 5.6-7 specifically identifies the annual average standard of $PM_{2.5}$ as 12 $\mu g/m^3$. Additionally, refer to Response to Comment Nos. 15-2 and 19-8.

19-8 Currently, the SCAQMD does not have guidance on modeling techniques or thresholds of significance for fine particulate matter ($PM_{2.5}$).[4] The SCAQMD is in the process of developing a proposal that would outline specific thresholds of significance and recommended modeling techniques for fine particulate matter. Currently, the SCAQMD recommends modeling coarse particulate matter (PM_{10}), and assessing it against the thresholds of 150 pounds/day for the construction period and operations period. Additionally, per the SCAQMD, the current methodology is to assess $PM_{2.5}$ qualitatively until further guidance is issued.

19-9 The Commentor's general comments are noted and will be considered by the County of San Bernardino. The statements used in the Draft EIR for gauging the significance of air quality are based on widely accepted methodology, County Standards and the South Coast Air Quality Management District Rules and Regulations. These standards are considered appropriate, and even conservative. Additionally, please refer to Response to Comment Nos. 19-4, 19-6 and 19-13.

19-10 Commentor refers to air quality impacts associated with toxic air contaminates. Please refer to Response to Comment No. 19-4, which addresses this concern.

[3] http://www.arb.ca.gov/qaweb/sitelist_create.php

[4] Conversation with Steve Smith, SCAQMD on July 14, 2004.

19-11 The air quality analysis utilized the SCAQMD guidelines for assessing localized Carbon Monoxide hotspots, as well as the guidance contained in the *Transportation Project-Level Carbon Monoxide Protocol* from the University of California Davis Institute of Transportation Studies. Per these guidelines, the effects from project related carbon monoxide were found to be less than significant. For coarse particulate matter (PM_{10}), the analysis utilized the SCAQMD recommended modeling techniques and threshold of 150 pounds/day. Additionally, refer to Response to Comment No. 19-8.

19-12 The thresholds of significance reflected in Table 5.6-3, *SCAQMD Thresholds of Significant Contribution to Regional Air Pollution*, are recommended by the SCAQMD for analyzing a project's air quality impact in the South Coast Air Basin. The SCAQMD does not issue guidance for "microbasins" or issue project specific thresholds. The operational and cumulative impacts were assessed per the current SCAQMD *CEQA Guidelines* (November 1993) and the *Final Air Quality Management Plan* (August 2003). Additionally, refer to Response to Comment No. 19-3.

19-13 The EPA certified fireplaces were recommended as mitigation measures and are thus incorporated into the Mitigation Monitoring and Reporting Program. The developer is required to adhere to the MMRP and compliance is ensured through the County plan check and design review process. Additionally, refer to Response to Comment No. 13-4.

19-14 The operational air quality analysis qualitatively addresses the emissions from boating activity. As the emissions from operational sources are significant and unavoidable, the quantification of emissions from boats is not necessarily required and does not alter the conclusion. Boat engines are divided into classes of outboards or inboards. Outboard engines are mounted external to the boat structure. They typically hang on the rear wall of the boat. To minimize their weight, outboard engines have traditionally been two-stroke engines, thus personal watercraft (PWC), which are most commonly two-stroke jet-drives, are grouped together with them.

In 1998, the CARB approved emission reductions from outboard engines and personal watercraft by adopting exhaust emission standards for new engines. Starting in 2001, all new outboards sold in California were required to meet the EPA 2006 emission levels (approximately 75 percent reduction from uncontrolled levels).

The new California regulation requires that new outboard and PWC engines meet the EPA 2006 standards for hydrocarbon (HC) plus oxides of nitrogen (NOx) in 2001. This level represents about a 70 percent reduction in HC emissions from the pre-1998 levels. In addition, the California regulation adds a very-low-emission tier for 2004 of about 77 percent reduction from pre-1998 levels, and an ultra-low-emission level for 2008 and later of about 90 percent reduction.

In an effort to quantify the emission from personal watercraft associated with the project, the SCAQMD provided emissions factors for two stroke engines. Utilizing the SCAQMD emission factors, as well as assuming a usage factor of 9 percent per the Big Bear Municipal Water District Management Plan (2000), the emissions were calculated on a daily basis. As the project includes a 100-slip small craft harbor, the

9 percent usage rate translates into 9 boats operating simultaneously. To calculate the emissions from these boats, the following assumptions are utilized:

Emissions Factor for 2-Stroke Engines (g/kW-hr)[5]

Engine Size (hp)	HC	NO_x	CO	PM_{10}
150-300	366	2.2	672	0.0053

Total Daily Emissions (lbs/day)

Engine Load factor = 40 percent
Percent Usage = 9
Hours/Day Operation = 4

Length(ft)	HP/Slip	Boats	HC	NO_x	CO	PM_{10}
<20	150	6	0.01	1.94	0.07	0.80
<30	300	3	0.01	1.94	0.06	0.80
Total (lbs/day)		**9**	**0.02**	**3.88**	**0.13**	**1.6**

As evidenced above, although the emissions would not exceed the thresholds developed by the SCAQMD, the operational emissions would still remain significant and unavoidable. Although the above calculations are representative of average weekend usage, the significance conclusion would remain the same during peak summer and holiday usage periods.

19-15 Temperature data is used in the URBEMIS2002 to estimate winter and summer pollutant concentrations. The value that is put into the model is the ambient temperature. Although, it is acknowledged that temperatures at the project site are frequently below 30°F, the model utilizes the ambient temperature instead of the lowest recorded temperature. Additionally, 90°F was utilized for the same purpose, as well as to present a conservative scenario.

19-16 Comment is noted. Commentor refers temperature inversions and affects to air quality. Please refer to Response to Comment No. 19-3, which addresses this concern.

19-17 Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard, while estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored. State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers. State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

19-18 Footnote 2, in Table 5.6-5, *Long Term Project Emissions,* means that that computer model default was changed to predict the pollutants arising from 25 percent of the

[5] Per Gordon Mize, South Coast Air Quality Management District Transportation Specialist, July 20, 2004.

homes (23 homes) using an outdoor wood stove and 100 percent of the homes (93 homes) would use an indoor wood burning fireplace. This scenario is highly conservative and was designed to be a worst-case scenario. Additionally, refer to Response to Comment No. 19-6.

19-19 Comment noted, on April 15, 2004 the Environmental Protection Agency formally replaced the 1979 1-hour ozone standard with a more stringent 8-hour standard as part of the Clean Air Rules of 2004.

May 5, 2004

945 Deertrail Ln. Fawnskin

MATTHEW W. SLOWIK
County of San Bernardino,
Land Use Services Department,
Planning Division,
385 N. Arrowhead Ave.,
San Bernardino, CA 92415-0182

Dear MATTHEW,

RE: ". DRAFT EIR FOR MOON CAMP DEVELOPMENT PROJECT/RCK PROPERTIES INC.: GENERAL PLAN AMENDMENT/OFFICIAL LAND USE DISTRICT CHANGE FROM BV/RL-40 TO BV/RS-7200 AND AMENDMENT TO COUNTY CIRCULATION ELEMENT FOR REALIGHMENT OF NORTH SHORE DRIVE; TENTATIVE TRACT MAP # 16136, AND CONDITIONAL USE PERMIT FOR A BOAT DOCK."

Thank you for the opportunity to review this document. As usual in a document such as this one the developer has played down most of the key issues by concluding, **"THAT THE IMPACTS ARE LESS THAN SIGNIFICANT."** For example

1. ZONING CHANGE SEC. 5.1-2 Statements 1 though 4 the proposed project is **NOT** a community benefit and **DOES** have an adverse effect on the surrounding property. So those statements are not true and a change from rural to residential is not a logical extension. 20-1

2. CUMULATIVE IMPACT SEC. 5.13 this proposed project combined with the proposed Marina Point development, the Brookside project, plus expansion of the Discovery Center will have **extremely significant combined impact**. 20-2

3. FIRE PROTECTION SEC. 5.3-1 New evaluations needed since **FIRE RISK** level upgraded from **FIRE RISK LEVEL 2 TO LEVEL 1** everything is invalid. 20-3

4. WATER SEC.5.3-9 Current drought condition with no end in sight, and increase in rates and water restriction already in place. DWP declared a **WATER SHORTAGE EMERGENCY RESOLUTION ON April 27th, 2004**. Conservation Stage II now in effect with strong possibility that Stage III and IV could be in effect by the end of the summer. The water supply **MUST** be proven prior to changing the zoning. The ground water basin **is already in overdraft conditions.** 20-4

These are only a few of the so-called conditions **"That the impacts are less than significant".** Others of importance and will have significant impact on the community are, Wastewater, Solid Waste, Electricity, Traffic, Noise, Tree Removal, Eagle Habitat, Sewer Capacity, Noise, Police Protection, and many others that are listed in the DEIR

All these environmental hazards associated with a development of this magnitude should be reviewed very carefully. **Hasty decisions on a complex issue such as the one before you should not be made.**

Yours Sincerely,

Herbert V. Clotts

Herbert V Clotts

Response to Commentor No. 20
Herbert V. Clotts
May 5, 2004

20-1 Commentor refers to the Project's consistency with the General Plan. Please refer to Response to Comment Nos. 13-9 to 13-16, which address this concern.

20-2 Commentor refers to cumulative impacts associated with other foreseeable projects. Please refer to Response to Comment No. 13-2, which addresses this concern.

20-3 Commentor refers to the accuracy of the current Fire Risk Level designation in the project vicinity. Please refer to Response to Comment No. 13-27, which addresses this concern.

20-4 Commentor refers to water supply and affects to groundwater. Please refer to Response to Comment Nos. 1-4, 1-5 and 18-1, which address this concern.

DRAFT

ROBERT R. HENRICH
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Wednesday, May 5, 2004

Matthew W. Slowik
Land Use Services Department
Planning Division
385 N. Arrowhead Ave., First Floor
San Bernardino, CA 92415-0182

RE: **DRAFT EIR FOR THE MOON CAMP DEVELOPMENT PROJECT/RCK PROPERTIES INC.,GENERAL PLAN AMENNDMENT/OFFICIAL LAND USE DISTRICT CHANGE FROM BV/rl-40 TO BVRS-7200 AND AMENDMENT TO COUNTY CIRCULATION ELEMENT FOR REALIGNMENT OF NORTH SHORE DRIVE;TENTATIVE TRACT MAP #1636, AND CONDITIONAL USE PERMIT FOR A BOAT DOCK.**

Dear Mr. Slowik:

Thank you for the opportunity to review the document and provide comments. I oppose this Moon Camp project as presently designed, because the DEIR fails to adequately evaluate the true impact on the Fawnskin area. The following are examples of my concerns:

Section 5.4 – Aesthetics - "Scenic Highway"
State Route 38 that runs though the proposed project is designated as a County Scenic highway and an "Eligible State Scenic Highway. The North Shore Improvement Association is providing input to the new county general plan. As part of this activity I have agreed to work on a proposal to obtain state designation for the county scenic highway.

21-1

At a county general plan meeting in Big Bear City on February 17, 2004. I asked that the county support state designation for the scenic highway. Terri Rahhal, the San Bernardino County Planning Representative, stated that the Route 38 was a county scenic highway, and she agreed to work with me on state designation. In a phone conversation after the meeting I told Terri that my contact on Scenic Highways at the State was Dennis Cad at Caltrans. Terri called Mr. Cad and reviewed what was needed to move forward. She called me back and stated that a letter of commitment from the county was the next step. In late March Terri informed me that she submitted the request to her supervisor. In May Terri stated that cannot send a letter of support until the general plan is completed.

Section 5.4 –Aesthetics – Cont.

I believe that this decision came from the San Bernardino Board of Supervisors not the planning department. I also believe that this project will change the scenic views to the point that highway 38 will not meet the standards for either a county or state designation as a scenic highway. This project will add houses on the water, eliminate many of the curves in the road, and block the views of the lake and the forset. This could be the reason that the county has not responded to the request for state designation for the county scenic highway. 21-1

Because of the above, this project as presented in the draft EIR will have a very detrimental impact on the aesthetics (Section 5.4) of the area.

Police Protection – Section 5.3-2

As President of North Shore Improvement Association, I have received a number of complaints regarding the response time from the Sheriff's Department. In every case the response time was two to three hours. This draft EIR does not take into account the negative impact of the Marina Point Development. This project will make a bad situation much worse. 21-2

Because of the above this draft EIR will provide a significant negative impact on police protection.

Water – Section 5.3-6

First SB221 does apply as 92 additional connections is a 14% increase. The next problem is the fact that the impact of the Marina Point Development on the ground water is not discussed in the draft EIR. 21-3

Two more issues are changes that have occurred in the last few months. New private wells have been drilled in the area including one within 20 feet of the West end of the Moon Camp property. Second, The Department of Water and Power under Water Code Section 351 has expanded the drought conservation regulation to stage II effective May 1, 2004. This includes a 30% reduction in outdoor water use and drop in water connections valley wide to from 200 to 180. The DWP notice also includes the following, "If the targeted 10%(indoor) reduction is not achieved by mid-summer, adoption of more restrictive water-use regulations may be considered. If the drought continues, will the hook ups be lowered to 50 valley wide? Will the Marina Point Development use up all the available hookups? 21-4

Because of the extreme drought situation, the approval of 92 water hook ups when they may not be available is not just a major negative impact it is unconscionable. 21-5

Thank you for the chance to respond to the Draft EIR.

Sincerely,

Robert R. Henrich

cc: Supervisor Dennis Hansberger
Congressman Jerry Lewis
Senator Jim Brulte
Assemblyman Russ Bogh
Senator Nell Soto

Response to Commentor No. 21
Robert R. Henrich
May 5, 2004

21-1 The County will consider the Commentor's opinion and comments during their deliberation on the project.

21-2 Commentor refers to current police protection services and the Project's impact to police services. Please refer to Response to Comment Nos. 13-38 to 13-40, which address this concern.

21-3 Refer to Response to Comment No. 13-42 for a discussion of the applicability of SB221. The discussion of groundwater resources in Section 5.11, *Hydrology and Drainage*, concludes that impacts to groundwater resources are a significant adverse effect and until additional technical review is conducted to verify conditions, the project would result in an unavoidable impact. This conclusion was based upon the 2003 GSS report that analyzed both the North Shore and Grout Creek Hydrological Subunits. It will be the responsibility of the Project Applicant to prove that water resources are available to serve the Moon Camp project. Similarly, it is the responsibility of the Project Applicant of the Marina Point Development to prove that water resources are available to serve that project. The Cumulative Impact analysis in Section 5.3, *Public Services and Utilities*, concludes that cumulative impacts are significant and unavoidable regarding water service since no water service provider has been identified.

21-4 Commentor refers to water supply and cumulative affects to groundwater. Please refer to Response to Comment Nos. 13-48, 18-1 and 21-3, which address this concern.

21-5 The County will consider the Commentor's opinion and comments during their deliberation on the project.