Staff has received additional correspondence related to this item. The letters are attached for your review. Also, staff would like to correct an error in the Board Agenda Report. The report states that approximately 8,000 letters were submitted in opposition to the project and approximately 2,000 letters in support. The correct numbers are more than 17,000 letters in opposition and more than 3,500 letters in support. The majority of the letters submitted appear to be form letters. Examples of the form letters are included in the attached correspondence.
April 17, 2017

Hand Delivery and Email
Mr. Kevin White, Project Manager
Department of Land Use Services
County of San Bernardino
385 North Arrowhead Avenue – 1st Floor
San Bernardino, CA 92415

San Bernardino County Counsel
385 North Arrowhead Avenue
San Bernardino, CA 92415

RE: Lazer Radio Broadcasting Facility Project
APN: 0325-011-19-0000
Planning Commission Hearing Required

Dear Mr. White:

This firm represents the Citizens for the Preservation of Rural Living ("CPRL") and on its behalf submits the following demands relating to the requirements under the San Bernardino Development Code and California law that the Lazer Tower Project referred to above be heard by the Planning Commission prior to a hearing before the San Bernardino Board of Supervisors.

A. Fast Tracking of Lazer Project Hinders Public Participation

The County has made a determination to skip the planning commission hearing in connection with processing of the Lazer Tower application. The effect of this "fast-tracking" is to limit and hinder public participation in the process. The normal process for any discretionary project is to have a hearing before the Planning Commission. The Planning Commission decision is then appealable by either side to the Board of Supervisors (BOS).

With respect to the 2009 application and the 2012 application, CPRL was the appellant who filed an appeal of a Planning Commission approval of the project to the BeOS. As appellant, CPRL was a party to the appeal and had the full opportunity to give a full-length presentation of its opposition to the project, rather than being limited to a three minute presentation as any other
member of the public. Had this project gone before the Planning Commission, if the Planning Commission approved the project, CPRL would have appealed the project to the Board of Supervisors. As the appellant, CPRL would have been permitted to present a full presentation. In light of these facts, CPRL should be permitted to present a full presentation at the BOS hearing on April 18, 2017, unlimited by the normal three-minute rule. Failure to permit a full presentation by CPRL would impair the “fairness” of the hearing and constitute a denial of due process to CPRL.

In addition, by skipping the Planning Commission hearing, the public is given only one opportunity to give testimony relating to the project. In many cases working citizens who desire to testify cannot make a particular hearing due to their work schedule or other issues that prevent them from attending. The normal process of providing two public hearings enhances public participation, which in this case will be cut off by having a single hearing before the BOS.

B. Judgement in CEQA Case against Lazer Project Rescinded all Prior Approvals.

In the case of Citizens for the Preservation of Rural Living v. County of San Bernardino, Case No. CIV DS 213273, judgment was entered on December 17, 2013 ordering the County to do the following:

a. “To set aside and resend the adoption of the mitigated negative declaration and approval of the major variance for construction in a fire overlay area and the conditional use permit for the proposed Project – a monopole antenna and radio broadcast facility, equipment building, parking space, and security fence.”

b. “To prepare a legally adequate EIR in compliance with CEQA prior to any further approvals of the proposed Project.”

County’s Land Use Services Department has contended that the Court sent the Lazer project back to the Board of Supervisors, rather than back to the county subject to ordinary CEQA procedures for consideration and approval of an EIR. That reading of the final judgment in the case is incorrect. The normal processing rules for a project and an EIR are applicable to the Lazer application.

C. Development Code Requires Initial Review by Planning Commission.

County Development Code §86.0 1.010 establishes the “Planning Agency” for the County. The Board of Supervisors is authorized to act as the Planning Agency for land-use applications that require a public hearing and legislative action. The land-use application submitted by Lazer does not require a legislative action, so the Board of Supervisor does not act as the Planning Agency for the Lazer application.

Section §86.0 1.010 also provides authority to the Planning Commission to act as the Planning agency “for land-use applications that require a public hearing...” Pursuant to this section, the Planning Commission (not the Board of Supervisors) has review authority over the Lazer CUP application.

Ltr.jcm.LandUseServices and County Counsel re PC hearing 4.17.2017
Lazer has applied for a conditional use permit (CUP). Pursuant to County Development Code §85.0 6.030, review authority for conditional use permits is granted to the Planning Commission. In addition, this section requires a public hearing as the procedure for granting or denial of a conditional use permit. Pursuant to this section, the Lazer application for a conditional use permit must be heard by the Planning Commission.

Table 85-1 of the County Development Code further summarizes and confirms review authority over different types of planning applications. That chart “identifies the County official or authority responsible for reviewing and making initial decisions on each type of application or land-use entitlement required by this Development Code....” Pursuant to Table 85-1, the Planning Commission has initial “Approve/Recommend” responsibility for conditional use permit applications.

Environmental Findings. County Development Code §85.0 3.040 sets forth the procedures for environmental review of projects as follows: “Before taking an action to approve a land-use application that is subject to CEQA, the Planning Agency shall make one or more environmental findings. The environmental finding(s) is required in addition to the findings specified in the Development Code for each application type.” The Planning Commission is the Planning Agency for a CUP application, including any required EIR. Failure of the Planning Commission to make such findings violates the County Development Code and subjects the project to litigation for failure to follow the County’s own procedures set forth in its Development Code.

The Lazer application is controversial, with over 3,600 signatures submitted in opposition to the project. Failure to give the public full opportunity to oppose the project before the Planning Commission as well as the Board of Supervisors not only violates the County Development Code, but also violates the public trust in the process for controversial projects. Fast tracking the project sends the message that the County intends to approve the project and ignore public input.

Very truly yours,

MIRAU, EDWARDS, CANNON,
LEWIN & TOOKE
A Professional Corporation

By: John K. Mira, Esq.
Laser Radio Broadcasting Facility (P201000215)

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned facility.

The proposed facility consists of a free-standing 43-foot tall monopole and a 100-square-foot equipment shelter on 38.12 acres in the community of Oak Glen of the San Bernardino County. In the event that the proposed facility includes a diesel-fueled generator which is rated greater than 50 brake horsepower (bhp), a permit would be required in accordance with SCAQMD rules, including Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Initial Engines and Rule 1110.2 – Emissions From Gaseous- and Liquid-Fueled Engines. If there are permit questions concerning the generator, they can be directed to the SCAQMD’s Engineering and Compliance staff at (909) 396-2315. In the event that the diesel-fueled generator is in proximity to sensitive receptors, the SCAQMD staff recommends that the Lead Agency evaluate, quantify, and perform a health risk assessment.

SCAQMD staff is available to work with the Lead Agency to address these issues and any other air quality questions that may arise. If you have any questions regarding this letter, please contact me at lsun@aqmd.gov or call me at (909) 396-3308.

Sincerely,

Lijin Sun

Lijin Sun, J.D
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

LS
SBC170411-05
Control Number
April 14, 2017

The Honorable Robert Lovingood
Chairman
San Bernardino County Board of Supervisors
First District
385 North Arrowhead Ave.
San Bernardino, CA 92415

ATTN: Laura Welch, Clerk of the Board

Dear Chairman Lovingood:

The San Manuel Band of Mission Indians, a federally-recognized Indian tribe located adjacent to the cities of Highland and San Bernardino, respectfully submits this statement for the record expressing our opposition to plans for a proposed radio broadcasting tower (REF: Lazer Broadcasting Conditional Use Permit) to be placed at the foothill of Wildwood Canyon within the city limits of Yucaipa.

San Manuel is of the Yuhaaviyatam Clan of Serrano, or People of the Pines. We are one of several clans of the greater Serrano Indian Nation, whose aboriginal territory encompasses most of present-day San Bernardino County. The Wildwood Canyon area, where the radio tower is proposed, is well within our aboriginal area and contains numerous Serrano cultural sites and resources of great importance and value to the Tribe.

Specifically, noted linguist and ethnologist J.P. Harrington’s interviews with Santos Manuel in 1918—detail the following facts: (1) Yucaipa is named after a Serrano village (Yucal'piat, Yucaipat) in this area; and (2) Wildwood Canyon was a Serrano cultural landscape and traditional use area largely inhabited and used by the Pavi’kajam clan. This landscape is punctuated with springs, trails, places of spiritual significance, habitation sites, and hunting/gathering locations all well known to Santos Manuel and the larger Serrano community both long before and at the turn of the 20th century.

Various members of the contemporary San Manuel tribal community have shared their knowledge about the Yucaipa and Oak Glen areas with our Cultural Resources Management Department staff over the last decade and have echoed much of what Harrington describes. As such, the CRM Department has long considered the Wildwood Canyon area as culturally sensitive and significant for the San Manuel Serrano and other Serrano clans.
The Honorable Robert Lovingood
April 14, 2017
Page two

For these reasons, the San Manuel Band of Mission Indians opposes the placement of a radio broadcasting tower at the foothill of Wildwood Canyon. We respectfully request that San Bernardino County reject this request to permit this development at the proposed site.

Sincerely,

[Signature]

Jerry J. Paresa
Chief Executive Officer

cc: The Honorable Janice Rutherford, Second District
The Honorable James Ramos, Third District
The Honorable Curt Hagman, Fourth District
The Honorable Josie Gonzales, Fifth District
Tom Hudson, Director, Land Use Services – San Bernardino County
April 11, 2017

Kevin White, Senior Planner
Current Planning Division
Land Use Services Department
County of San Bernardino
385 N. Arrowhead Avenue, 1st Floor
San Bernardino, CA 92415-0182

Regarding: Lazer Radio Broadcasting Facility (Project No. P201000215); Final Environmental Impact Report (SCH No. 2008041082)

Thank you for the response to comments on the Draft Environmental Impact Report (DEIR) for the above-referenced project. Concerns for the City of Yucaipa are included in the staff report dated November 26, 2012, Resolution 2012-71, and correspondence dated September 29, 2010 and September 19, 2012, which were attached to the City’s DEIR comments that were provided on July 20, 2016. A signed copy of Resolution 2012-71 adopted by the Yucaipa City Council opposing the Lazer Radio Broadcasting facility was also submitted for your records and should already be included in the Administrative Record. The concerns continue to be valid, and the City requests that the County deny the proposed Project.

The City has reviewed the comments and disagrees with the responses provided, and has continued concerns regarding the deficiency of the EIR relative to important environmental concerns associated with development of the proposed radio tower.

Project Construction:

The analysis within the EIR fails to consistently identify the total scope of construction activities that will be necessary to complete the Project. The response to comment (RTC) from the County notes that all work for the project would be completed by hand-controlled equipment, and that there would be no large construction equipment used. However, the fact remains that there will be an 8-foot trench within a 12 (or less) foot dirt roadway. The four-wheel drive trucks, which are mentioned in the RTC, are larger than 4 feet wide; a Toyota Tacoma, for example as a smaller truck, has a width of 75 inches, and could not fit adjacent to the trench. As such, the trenching activities necessary to underground utilities would require widening of the pathway to support construction traffic, equipment, and provide adequate width for construction personnel. The necessary site widening and its related impacts are dismissed from any discussion.

Further, the use of helicopters for site installation will also result in significant noise and wind issues, which may impact biological species, such as bird and mammals, that are located near the site but beyond the survey area conducted as part of the DEIR.
Project Objectives:

The City continues to contend that the proposed Project objectives, which relate to current programs offered by the proposed radio station, is not an accurate set of objectives for the purposes of CEQA. Again, radio programming is not static, and the radio format and programming will change over time based on market demand. Therefore, the ancillary programs provided by the radio station are not a valid objective to be used for assessing the environmental impacts for the proposed Project, and highlighting a small educational program segment is misleading in establishing the framework for an objective environmental analysis. The statement of objectives should include the underlying purpose of the project, which is simply to expand the radio broadcast coverage of a radio station. The RTCs (RTC 4-18) reference that this Project is highly beneficial, but the metric for determining this benefit is inappropriate and disingenuous. Is the Project conditioned to provide educational programs? Is the County establishing parameters what the tower can broadcast? The obvious answer is no; those elements are not a reasonable set of conditions for a local government agency to impose on a private radio station. However, the DEIR continues to use this approach to highlight the benefits of the Project. Again, the Project is simply expanding the broadcast area of a station. This objective would easily be completed using different sites.

The City also contends that the list of objectives focus on San Bernardino County, which specifically refers to San Bernardino City Unified School District, but that the engineering statement, which is used to justify the site location, is focused on providing coverage within Hemet, which is in Riverside County. Comment 7-23 notes that this approach is to ‘game the FCC rules,’ which seems appropriate in light of the conflict between the project purpose and site selection criteria (for coverage in Hemet) and the Project Objectives (for coverage in San Bernardino).

Aesthetics:

The City has concerns with the lack of analysis that was provided for RTC 4-4 and the DEIR conclusion that there were no other feasible Project Sites which could avoid the visual impacts, as the City disagrees that one alternative site provides an adequate assessment, and contends that the analysis for that alternative site defers the discussion, noting a separate visual impact assessment would be required to determine the significance of impacts. Therefore, given the visual sensitivity and environment of the Project site, and that there is likely other sites with reduced viewer sensitivity, the statement that there are “no other feasible Project Sites could avoid such impacts” is conclusory without substantiation. The engineering statement imposed unreasonable parameters for the site selection, which includes the concept that only one tower should be assessed. Two smaller towers, placed at strategic locations in the Inland Empire, could provide the intended coverage without nearly the same significant and unavoidable impact(s).

The City notes that RTC 4-5 does not provide the requested information regarding the camera settings, including aperture and shutter speed. The DEIR does not include this information, which was noted in the RTC. The Assessment notes a 50-mm lens was used to provide the best
representation of a human eye. However, a 50-mm lens on an APS-C sensor offers a different range of perception than that of a ‘full frame’ 35mm film equivalent camera. The City understands that a 50mm lens is still a 50 mm lens, regardless of its application, but the crop sensor does change the perspective of how that image is viewed. As such, full frame lenses on APS-C cameras have a functional “equivalent focal length,” where the image appears closer to a different lens for the same composition, and the depth-of-field increases by about a stop, relative to the full frame camera. This is pertinent to accurately describe how the simulations provide the best representation of a human eye, as the perception is different. But this discussion is not about Photography 101, but instead was intended to obtain information that would more clearly outline the assumptions that were used in the assessment.

Further, as part of the City’s comment letter, Staff attempted to visit the project site in order to have an opportunity to view the line of sight to those vantage points. The request to visit was unanswered, and as currently presented, the discussion in the EIR remains conclusory, and does not provide the substantial evidence necessary to support the conclusion. Photos were not provided of those key vantage points, and while it is not necessary to photograph every instance where the tower is not visible, it is important to provide the supporting documentation for statements made in an EIR.

In response to RTC 4-8, the City still requests that Mitigation Measure AES-1 be modified to include the maintenance and touch-ups for the facility. UV light will degrade the quality and condition of the paint, especially along the metallic surfaces of the antenna, resulting in eventual re-exposure of the metal surfaces of the antennas. This will further reinforce the conditions of approval, and highlight that maintenance of the site is germane to the entitlement application as well as the environmental concerns.

Bio and Fire Safety:

The City’s biological concerns (4-9, 4-11) relate to impacts resulting from the need to widen of Pisgah Peak Road in order to accommodate construction activities during trenching of the underground cable. A 12 foot (or less wide road) cannot accommodate an 8 foot trench and a standard four-wheel drive vehicle. Further, a fire truck would not be able to pass through this bottleneck. The use of a helicopter, as noted in the RTC, may also impact biological resources from the wind and noise generated, and was not considered in the biological analysis in the DEIR.

The City also requests clarification that Mitigation Measure HAZ-3 is to be amended to remove reference on the no-longer-present monopole. RTC 4-12 does not address the revised verbiage.

Cumulative:

The City still questions why a future tie into the extended electrical line for the proposed project was not considered as part of the cumulative impact analysis. What assurances is there that there will not be a future option for a tie in, or that the private line can be exclusive to this proposed
tower? Is there a condition to enforce this concern? The City requests detail to demonstrate absolute certainty that future tie-ins or extensions would not be possible.

Growth Inducing:

RTC 4-15 does not adequately address the City’s concerns regarding growth inducing impacts and cumulative impacts of new towers, as the comment is not limited specifically to radio towers. The RTC states that the analysis uses radio towers as the “worst-case scenario,” then refers that there has not been only one other application for a radio in the past 20 years. However, this fact ignores the fact that permits for cellular towers are more frequent, and are a similar use that could be permitted. Further, there is greater market demand for cellular towers, where the market demand for radio station growth is relatively limited. A legitimate concern is that approval of this Project within the Pisgah Peak area may inevitably lead to future towers proposed, including the more likely cellular towers, and would make it difficult for the County of San Bernardino to deny such projects based upon the established precedent resulting from approval of this Project. This is further compounded by the increasing number of state and federal laws that have been developed to expedite the review for cellular projects. The precedent from approving this Project will likely pave the way for the proliferation of cellular towers of the pristine natural environment. The simple response noting that only one Radio tower has been previously proposed grossly undermines and underestimates the potential cumulative impacts.

Alternatives:

The City disagrees with RTC 4-16: the alternatives analysis is to provide a metric for decision makers to accurately assess the merits of this project and compare environmental impacts and to provide an effective discussion on an environmentally superior project. Further, the CEQA Guidelines note that public agencies should not approve projects as proposed if there are feasible alternatives which would substantially lessen the significant environmental effects of such projects. The analysis falls short in providing a reasonable discussion, and the response from the County notes that there is nothing to suggest other sites would be superior. The reason is that no analysis from the DEIR is provided. Decision makers cannot make an informed decision because the DEIR does not provide enough information. An analysis of an alternative that consists of the development of two towers, similar to other regional radio stations, would address the needs of the proposed applicant. Further, it would permit an informed discussion on a superior alternative.

The City also still questions the alternatives analysis parameters for providing coverage specifically within the City of Hemet, when the project Goals and Objectives relate towards new coverage to the County of San Bernardino. The CEQA sectioned referenced in RTC 4-17 refers to the Rule of Reason and Feasibility. However, the concern is that the assessment provided for a singular tower placement is related to providing services in Riverside County, whereas this is not covered in any of the Project Objectives. As noted above, the rational for those Objectives is also inappropriate since there is no effective way to ensure that they are continually met; radio programming is NOT static.
RTC 4-19 also misses the point: Fire Service Impacts would also be less significant for the alternative site compared to the proposed Project, because development of a tower on a single family property would likely provide far greater access for the Fire Department. The single alternative site provided features an existing residence. This residence provides physical access pursuant to the Fire Code, and is traversed daily as part of the standard trips generated with a single family residence. As such, the access for that site is better suited for fire access compared to the rough and steep terrain of a 12 foot (or less) dirt road. The conclusion that the impacts for access on the proposed Project site are the same as the alternative site is ridiculous.

The City also disagrees with the County’s RTC 7-26, and believes that it does not address the comment provided or that it is simply a disagreement between experts. The information provided by comment 7-26 demonstrates that there are additional feasible sites that would be able to support the proposed Project, and if included in the EIR, would provide a more meaningful discussion of project alternatives.

Open Space Designation:

Several of the RTCs, such as 7-7, written to other commenters incorrectly note that the WCSP does not have an Open Space Land Use Designation with the City of Yucaipa. The comment is incorrect; WCSP is designated as Open Space, as demonstrated below from a screenshot of a portion of the City’s Land Use Map.

Conclusion:

The City of Yucaipa would like to reiterate that it opposes the Project, and requests that the County Planning Commission and Board of Supervisors deny the Project. Expansion of the radio
station can be accomplished without the unnecessary degradation of the scenic nature of the proposed Project site. Further, if this facility is constructed, it is almost certain that the County will receive additional applications for more communication towers and/or co-located facilities and therefore, the cumulative impacts/growth inducing impacts associated with this project also must be considered as significant.

If you have any questions, please feel free to contact me at 909-797-2489 x.247 or ptoomey@yucaipa.org.

Sincerely,

CITY OF YUCAIPA

Paul Toomey
Director of Community Development

cc: City Council
    Ray Casey, City Manager
Dear Board of Supervisors:
In 2009 and again in 2011, the communities of Yucaipa and Oak Glen spoke out against the proposed Lazer Broadcasting radio tower project. Our communities continue to strongly oppose this project. In an overwhelming response to Lazer’s second attempt to forever spoil the scenic vistas of Wildwood Canyon State Park (the Park), concerned citizens submitted 17,000 opposition letters to the Planning Commission. Lazer has falsely told our community that this tower is different and that our concerns have been allayed. Nothing is farther from the truth; this tower is substantially the same as the 2009 proposed tower.
In 2009, you overturned the Planning Commission and voted unanimously to deny an almost identical project by Lazer Broadcasting. We are asking that you do this once again to represent the interests of your constituents.
Allowing this tower creates a slippery slope that could result in future radio towers being built along the scenic viewsheds of the Park. Hikers, bicyclists and equestrian riders of the Park do not want their unspoiled trails and pristine mountain peaks to be turned into a radio tower farm. The current proposed Lazer Tower will still result in significant, unavoidable adverse impacts on the scenic resources of the Park. The tower will have substantial adverse effects on the undeveloped scenic vistas, will degrade the visual quality of the Park and its surroundings and upset the natural balance of our rural environment.
The proposed Lazer project could likely be the source of fire that will threaten adjacent residential structures and the apple orchards of Oak Glen. The project is located in Fire Safety Area 1 which is characterized by high fire hazard conditions and important County fire regulations have not been complied with.
Construction of the radio tower and transmission complex place several threatened animals, birds and plants in danger including the coast horned lizard, western yellow bat, rufous-crowned sparrow, and Lawrence goldfinch. Installation of underground utility lines to feed power to the transmission station could impact miles of sensitive vegetation. Rare and threatened species of concern in San Bernardino County must be preserved and protected for future generations.
We strongly encourage you grant the appeal and deny the project as it would have an adverse visual impact on Wildwood Canyon State Park, it would have a substantial adverse effect on abutting properties and would be inconsistent with the goals, maps, policies and standards of the General Plan and the Oak Glen Community Plan.
I strongly urge the County of San Bernardino to **DENY** this project and encourage Lazer to fully evaluate alternative tower locations.
August, 2010

San Bernardino Planning Commission
Land Use Services Department
385 N. Arrowhead Avenue, 1st floor
San Bernardino, Ca 92415-0182

Neil Derry, 3rd District Supervisor
County Government Center
385 N. Arrowhead Avenue, 5th Floor
San Bernardino, Ca 92415-0182

RE: Lazer Radio Project # 2010-00215

Dear Planning Department and Supervisor,

I am writing in support of this expansion project and new tower for Lazer Broadcasting.

I believe that Lazer has shown a great deal of support to local and regional members of the community. I am a frequent listener and resident of San Bernardino County and I consider their broadcast to be a primary source of public service announcements, News and generally all types of useful information for me as a listener. This plan to increase their service area is needed. In reaction of how we as patrons of their station and the many services they provide, please count me in total support.

Thank You,

Name: Darayna Oracz
Address: 1650 Cherry Ave.
City: Fontana Ca.
Phone: (909) 829-2825.
Signature: Darayna
From: Beverly Stark <petition@stopthetowernow.org>
Sent: Friday, April 14, 2017 12:39 PM
To: supervisors@stopthetowernow.org
Subject: Stop The Tower Now!

From: Beverly Stark
Subject: Stop The Tower Now!

County of San Bernardino
Land Use Services Department, Current Planning Division

Attention: Kevin White, Senior Associate Planner, CC: Greg Devereaux, County Administrative Officer 385 N. Arrowhead Avenue, 3rd Floor San Bernardino, CA 92415-00110

James Ramos, 3rd District Supervisor County Government Center
385 North Arrowhead Avenue, Fifth Floor San Bernardino, CA 92415-00110

Dear Mr. White and Supervisor Ramos:

In 2009 and again in 2012, the communities of Yucaipa and Oak Glen spoke out against the proposed Lazer Broadcasting radio tower project. Our communities continue to strongly oppose this project. In an overwhelming response to Lazer’s second attempt to forever spoil the scenic vistas of Wildwood Canyon State Park (the Park), concerned citizens submitted more than 17,000 opposition letters to the Planning Commission. Lazer has falsely told our community that this tower is different and that our concerns have been allayed. Nothing is farther from the truth; this tower is substantially the same as the 2009 proposed tower.

The current proposed Lazer Tower will still result in significant, unavoidable adverse impacts on the scenic resources of the Park. The tower will have substantial adverse effects on the undeveloped scenic vistas, will degrade the visual quality of the Park and its surroundings and upset the natural balance of our rural environment. Hikers, bicyclists and equestrian riders of the Park do not want their unspoiled trails and pristine mountain ridges to be turned into a radio tower broadcast zone.

Additionally, is it vitally important that the natural wilderness values within Wildwood Canyon State Park and the Pisgah Peak Open Space area remain protected. Construction of the radio tower and transmission complex place several threatened animals, birds and plants in danger including the coast horned lizard, western yellow bat, rufous-crowned sparrow and Lawrence goldfinch. Installation of underground utility lines to feed power to the transmission station could impact miles of sensitive vegetation. Rare and threatened species of concern in San Bernardino County must be preserved and protected for future generations.

Now is your opportunity to stop the tower once and for all. I am hopeful that you agree that this project would have an adverse visual impact on Wildwood Canyon State Park, it would have a substantial adverse effect on abutting properties and would be inconsistent with the goals, maps, policies and standards of the General Plan and the Oak Glen Community Plan.

I strongly urge the County of San Bernardino to DENY this project and encourage Lazer to fully evaluate alternative tower locations.
April 17, 2017

Mr. Kevin White, Project Planner  
San Bernardino County Land Use Services Department  
Planning Division  
385 N. Arrowhead Avenue, First Floor  
San Bernardino, CA 92415-0182

RE: Project No. P201000215/CF – Radio Tower Application  
Lazer Parcel - APN 0325-011-19-0000  
Final FEIR (SCH No. 2008041082)

Dear Mr. White:

This firm represents the Citizens for the Preservation of Rural Living (“CPRL”). CPRL
is a public interest association that seeks to ensure that the open space and natural wilderness
values of Wildwood Canyon State Park (“Park”) and the Pisgah Peak areas are preserved. We
have previously submitted comments to the project application submitted by Lazer Broadcasting,
Inc., which proposes the construction of a 43-foot tall radio tower on an undeveloped 40-acre
parcel of land in the San Bernardino Mountains (the “Project”).

As you know, we submitted a comment letter on the Project’s Draft Environmental
Impact Report (“DEIR”) on July 21, 2016, noting several aspects of the DEIR that were
inadequate. We now have reviewed the Final Environmental Impact Report and Response to
Comments (“FEIR” or “Response to Comments”) for the Project prepared for the County of San
Bernardino Land Use Services Department (“County”) by the Lilburn Corporation. As detailed
below, the FEIR fails to cure the deficiencies in the DEIR and, as such, the FEIR is inadequate
and does not comply with the requirements of the California Environmental Quality Act
(“CEQA”).
Please enter these comments in the official administrative record for this Project, and keep us notified of any proceedings related to the Project’s and the FEIR’s consideration by the County. Please note that we reserve the right to supplement these comments, particularly should any additional information be submitted by the applicant related to the Project or additional analysis prepared by the County.

1. Significant and Unavoidable Aesthetic Impacts of Tower Project.

Since 2008, Lazer and its consultants have consistently claimed that construction of the proposed radio tower would not have a significant adverse impact on aesthetics, or pristine vistas from the Park. CPRP has consistently provided evidence to the contrary; namely, that the Project will have significant and unavoidable impacts on the view shed from the Park. In the FEIR, the consultants for the County and Lazer continue to take the position that the tower will not have a significant impact on the environment, yet the FEIR still concludes in the end that the aesthetic impact will be significant and unavoidable. Therefore, in order to approve the Project, the Board of Supervisors ("BOS") would be required to adopt a Statement of Overriding Considerations under CEQA.

The finding of significant and unavoidable aesthetic impacts not only impacts the CEQA analysis, but also provides the context in which the BOS makes the discretionary determination as to whether it should grant a Conditional Use Permit (CUP), and also in making the determination as to whether the Project is consistent with the goals and objectives of the Oak Glen Community Plan ("OGCP").

A more comprehensive discussion of inconsistency with the Community Plan Goals and Objectives is set forth in our July 21, 2016 letter. But it is worth revisiting the goals and objectives of the Community Plan in light of the County’s conclusion that the Project will have unavoidable adverse impacts on aesthetics.

The introduction to the OGCP, OG I .3, Community Character (Page 12) provides a discussion of the importance of the rural character of the Oak Glen area. The introduction includes the following discussions, which must inform the BOS’ decision as to the appropriateness of this Project for the community:

“A primary concern is the preservation of the rural agricultural character of Oak Glen. The....abundant open-space and wildlife are valued highly by residence as well as by visitors who frequent the area”.

"Maintain the elements that contribute to the area’s rural character and lifestyle; natural resources, scenic vistas, open space and agricultural.” [Bold Added]"  

"Consequently, residents of the Oak Glen community suggest that the primary land-use concern in the Oak Glen community is that the rural agricultural character of the community is preserved by creating standards for development and limiting land uses,
particularly the type of commercial land uses, to those compatible with the character they wish to sustain." [Bold added]

This last quote from the OGCP specifically references limiting land uses of a commercial nature to those which are compatible with the rural nature of the community that the residents of Oak Glen desire to maintain; therefore, the policy should lead to the decision to prohibit a commercial land-use in an area immediately adjacent to the Park because an industrial-type facility, including a tower and antenna, equipment building and fencing, simply is not compatible with the Park and the adjacent open-space Conservancy areas. Consequently, the BOS cannot make the necessary finding to overcome the significant and unavoidable impacts to aesthetics, because the Project is not consistent with the OGCP’s goals and objectives for the community’s rural character.

The Response to Comments makes the argument that the goals and objectives of the OGCP Plan relating to maintaining the rural and agricultural nature of the area was not intended to prevent construction of a radio tower because it is permitted under the applicable zoning designations with a conditional use permit. We agree that the goals and objectives of the OGCP do not constitute an absolute prohibition against construction of commercial or industrial facilities in areas in which they are a conditional use. Rather, the goals and objectives of the OGCP must be implemented on a case-by-case basis, taking into account the nature of the adjacent properties, as well as the impact of a project on those properties. In this case, a determination has been made by the County itself that the Project will have significant, adverse, unavoidable impacts on aesthetics. Given the fact that the Project is immediately adjacent to a state park, a highly sensitive land-use that is protected under the goals and objectives of the OGCP, the BOS should weigh those significant, adverse, unavoidable impacts and make a determination that this particular location is not appropriate for approval of a conditional use because of the adverse impacts on a sensitive land-use.

Importantly, Goal OG/C 1 of the OGCP is to preserve the unique environmental features of Oak Glen including native wildlife, vegetation and scenic vistas. Yet, on page 3 – 23 of the FEIR, the County focuses on the omission of “scenic resources” from Pisgah Peak Open Space Policy Area 47 to support the conclusion that the County does not have an obligation to protect scenic vistas. While it may be possible to take a particular sentence of a single policy and argue that scenic vistas are not mentioned, the overall context and specific references of the OGCP make it abundantly clear that its goals and policies seek to protect Oak Glen’s scenic vistas.

2. Failure of FEIR to Adequately Analyze One-mile Utility Extension.

One of the main defects of the FEIR is its failure to recognize the significance of an almost one-mile utility extension along Pisgah Peak Road that will provide electricity to the Project site. In the DEIR’s Project Description, this one-mile extension is described in a single sentence. But the FEIR defends the lack of analysis by explaining that, because the utility extension will be along Pisgah Peak Road, which is a dirt road, there will be minimal impact on the environment. This response is both conclusory and dismissive—it has no factual basis and is
not supported by substantial evidence.

A. Definition of Project.

The FEIR appears to take the position that the one-mile utility extension is not part of the Project’s 38.12 acre site and, therefore, is somehow an off-site improvement that does not constitute a substantial part of the “project” under CEQA. By ignoring even minimal analysis of the impact of the utility extension, the DEIR and FEIR fail to treat the utility extension as part of the CEQA project being analyzed, which requires a full and separate analysis of aesthetic impacts, biological impacts, soil and geotechnical analysis, etc.

Under CEQA, a project is the whole of an action which has the potential to result in significant environmental change in the environment, directly or ultimately (CEQA Guidelines Section 15378). In San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus, 27 Cal App 4th 713, 1994, the court held that off-site sewer expansions were a required element of the development project under review. The court held that the “total project” included both the housing and the sewer project necessary to serve it. Because the EIR failed to contain an adequate discussion or analysis of the environmental consequences of the sewer expansion, the EIR failed to comply with CEQA and was defective. A similar court holding is set forth in Santiago County Water District v. County of Orange, 118 Cal App 4th 818. In that case, the EIR failed to adequately analyze the environmental impact of off-site water facilities necessary for the project to operate.

In addition to the Project definition including off-site utility extensions, the County Development Code itself requires a biological survey of properties adjacent to a project. Development Code §82.19.030 (Special Requirements for Natural Resources) provides as follows: “If a biotic resources report is required, it shall identify all biotic resources located on the site and those on adjacent parcels that could be impacted by the proposed development and the impacts on the area as a wildlife corridor.” [Bold Added]. Thus, the County Code itself requires a much more extensive biological survey than any of the surveys conducted by Lazer or the BAS Report (defined below) which was obtained by County as part of the FEIR process.

B. Biological Impact of Utility Extension.

With respect to biological impacts, the FEIR includes no analysis or meaningful data with respect to the impact on biological resources of the one-mile of trenching along Pisgah Peak Road. None of the biological surveys, including the most recent one prepared by Biological Assessment Services, dated August 17, 2015, (“BAS Report”) surveys the biological impacts of the one-mile trench along Pisgah Peak Road.

In reviewing the BAS report, it is clear that the scope of work assigned to BAS did not include surveying fauna or flora along Pisgah Peak Road or adjacent parcels. Under the title “field surveys,” the report states that “Ms. Kirtland surveyed 100% of the proposed tower area, access road, equipment shed and parking/turnaround area, documenting the biological resources
and habitat conditions.” Section 4.3 of the BAS report describes the areas which were subject to the biological survey, including the radio tower area, the equipment shed, the parking/turnaround site. It is clear that the almost one-mile length of Pisgah Peak Road, on which the trench for electrical service will be dug, was not included within the survey. In addition, the pictures included in the BAS Study only depict the areas subject to the biological survey, which fail to include the almost one-mile length of Pisgah Peak Road on which the trench will be constructed.

Rather than conduct a biological survey of Pisgah Peak Road, the Response to Comments explains the source of information utilized to determine that there would be no biological impacts resulting from the one-mile trench, as follows (FEIR Page 3-3 and 3-9):

“Response to Comment 1-4: No protected species or their habitat were found during any surveys of the Project area (conducted in 2006, 2007, 2009, 2010, 2012, and 2015). Recent photographs (including aerials) of Pisgah The Road were obtained in addition to field review of the Project Area. No permanent impacts to specific flora or fauna, or their habitat would occur.” [Bold Added]

“Response to Comment 4 – 9; as discussed in Comment 4 – 7, the proposed Project will not require the widening of Pisgah Peak Road. The entire length of Pisgah Peak Road is already disturbed and denuded of vegetation. A review of recent photographs (including aerials) of that road was conducted in addition to a field review of the Project area. The trenching for utility installation will be a temporary impact with no native vegetation removal. Backfilling of the trench will result in the return of the road to its pre-construction condition. No permanent impacts to flora or fauna, or their habitat would occur. The commentator does not provide any evidence to support his assertion that biological resources would be impacted.” Page 3-9, FEIR, Response to Comment 4-9.” [Bold Added]

This response admits that the biological survey only included the Project area, which did not include Pisgah Peak Road. The County’s attempt to survey Pisgah Peak Road with aerial photographs (that are not provided as evidence in the FEIR) falls woefully short of the detail necessary to inform an adequate biological survey as to the potential impacts to fauna and flora on Pisgah Peak Road.

Nevertheless, the undersigned personally conducted a survey of Pisgah Peak Road on Friday, April 14, 2017. The undersigned hereby certifies that he personally took the attached photographs on Friday morning, April 14, 2017. All of the photographs were taken on areas of Pisgah Peak Road from the existing power source on Pisgah Peak Road toward the Project site approximately one-mile to the west. The attached photographs are not doctored or modified in any way.

The attached pictures of Pisgah Peak Road show that many sections of Pisgah Peak Road, along the approximate one-mile segment on which trenching will occur, contain native plants. Along many areas of the road, there are significant plants in the middle of the road in the exact
location where trenching will occur. All of those native plants would need to be removed in order to conduct the trenching.

As quoted above, the FEIR dismisses any impacts by declaring that Pisgah Peak Road is “denuded of vegetation” and that there will be “no removal of native vegetation.” The enclosed pictures constitute substantial evidence that the conclusions set forth in the FEIR are factually incorrect, not supported by any evidence, and require actual biological analysis under CEQA.

C. **Erosion and Impact Integrity of Pisgah Peak Road.**

Another significant issue that arises in connection with digging a one-mile trench along Pisgah Peak Road is that of erosion. The FEIR fails to include soil testing or any other geotechnical analysis of the impact of a 3 foot trench along Pisgah Peak Road, which already is as narrow as 6 feet in some areas. As the attached pictures show, some portions of Pisgah Peak Road are so impacted by erosion from recent rains that more than half of the road has been washed away in some places. The pictures of Pisgah Peak Road attached hereto document the following:

A. Significant portions of Pisgah Peak Road, including approximately one quarter mile of the westerly section of the trenching area, are so deteriorated by erosion, rockslides and the growth of plants, that it is a barely passable dirt road;

B. For at least the last half mile of the westerly section of the trenching area, the road has not been maintained in many years and appears to be more of a trail than a road. The condition of Pisgah Peak Road near the Project site is worse than most of the other segments of Pisgah Peak Road.

These photographs constitute substantial evidence of erosion requiring analysis to determine appropriate and specific conditions of approval for erosion control and other measures to stabilize Pisgah Peak Road prior to approval of the FEIR.

The Response to Comments rejects comments relating to concerns about erosion as follows:

“With regard to erosion control, the current project has been previously approved by the Board of Supervisors, and Conditions of Approval in that regard were issued in 2012 to address potential air quality impacts. This objection was considered and rejected by the Court and therefore, is not to be brought up again as a new issue. The DEIR is intended only to cover those items which the Court found to be in need of further review. Per Condition of Approval numbers 12 and 14, grading permits (if necessary) and continuous maintenance of the site are required which will include erosion control measures.” CITE?

This response shows a complete lack of understanding of the judgment entered by the Superior Court in connection with the CEQA lawsuit filed against the County. The final order of the court provides as follows:
"The County is required to prepare a legally adequate EIR in compliance with CEQA prior to any further approvals of the proposed Project."

The final judgment completely voided the 2012 approvals and, therefore, these such approvals cannot in any way be relied upon in connection with an environmental review of the current Project. The final judgment in no way exempts or provides a waiver for any significant, adverse impact on the environment in connection with preparation of an EIR for the Project.

In its Ruling on Petition for Writ of Mandate, entered by the Superior Court on October 1, 2013, the court analyzed whether or not there was substantial evidence of any net significant environmental impact of the project. In the course of that analysis, the court considered evidence relating to visual and recreational impacts, land use impacts, fire impacts, and other impacts. The court granted the writ of mandate, ordering that a EIR be prepared, based upon a fair argument of impact on aesthetic and recreational values, growth inducing impacts, and a conflict with applicable land-use policies.

The analysis of the Superior Court related to the adequacy of a negative declaration, based upon the administrative record and evidence before the court. The fact that the court may have found inadequate evidence to find a fair argument for other environmental impacts in no way constitutes a “waiver” or a determination that, upon a subsequent preparation of an EIR, the County was exempt from analyzing issues that did not form the basis of granting the writ of mandate. Accordingly, all responses in the FEIR that rely upon the false conclusion that the Superior Court action created a waiver of certain environmental issues are facially defective. The order of the court was very clear: prepare a legally adequate EIR in compliance with CEQA. Therefore, the County’s failure to adequately analyze a potential environmental impact (e.g. erosion) falls short of the Project’s required CEQA compliance, causing the FEIR to be defective and subject to legal challenge.

As noted above, the undersigned surveyed Pisgah Peak Road on April 14, 2017. Pictures of the road were taken showing significant erosion. Those pictures are attached as part of the administrative record for the Project. Portions of the road are barely passable due to erosion. No soils testing or other geotechnical investigations were conducted on Pisgah Peak Road in connection with preparing the DEIR or the FEIR. The FEIR does not include any evidence relating to the current condition or the existing erosion of Pisgah Peak Road. There was no attempt whatsoever to survey the condition of the road, other than through presumably dated aerial photographs. There are portions of Pisgah Peak Road which are so eroded that it now will be necessary to rebuild the road before any underground utility service can be effectively trenched. In connection with areas of Pisgah Peak Road that were subject to prior erosion, the FEIR in no way analyzes (and imposes no current, specific conditions of approval) which would prevent future erosion, which would cause the underground utility lines to become exposed again. In addition, some portions of Pisgah Peak Road are so narrow and unpassable that the digging of a 3-foot wide trench and any subsequent backfill with dirt could further undermine the structural integrity of the existing road. Yet, the FEIR contains no engineering details as to how
Pisgah Peak Road will be protected from future erosion where the trench occurred, nor a description of the erosion control facilities that will be necessary to prevent future erosion which could expose underground electrical facilities.

As stated above, the FEIR simply dismisses the substantial implications of trenching a one-mile stretch of an eroded and structurally compromised dirt road that provides the only means of access to dozens of landowners who own property along Pisgah Peak Road. Consequently, the County’s analysis of the environmental impacts to Pisgah Peak Road are conclusory in nature and utterly fails to provide the substantial evidence required to justify the conclusion that the one-mile trench will have no significant adverse impact on the environment, including erosion, biological impacts, as well as impacts to access to adjacent properties.

3. Land Use/General Plan Inconsistency.

CPRL has consistently pointed out for years that the proposed tower is inconsistent with the County General Plan and the OGCP. The specific General Plan goals and policies, and the OGCP goals and policies relating to open space and scenic vistas are set forth in our July 21, 2016 letter (contained in the FEIR). Those discussions will not be repeated, but are incorporated herein by reference. In summary, those policies and goals are designed to minimize impacts on open space corridors, support and actively pursue the expansion of the Park in cooperation with other community conservation groups, protect linkage values, and preserve unique environmental features of Oak Glen, including native wildlife, vegetation and scenic vistas.

A. Judgment in CEQA Case Requiring EIR.

In the case of Citizens for the Preservation of Rural Living v. County of San Bernardino, (Lazer Broadcasting Real Party in Interest), Case No. CV 213273 (herein CEQA Case”) court made a direct finding that the Mitigated Negative Declaration (“MND”) was inadequate in its discussion and analysis of whether the tower project was consistent with County land use policies and goals. This conclusion by the court raises the question as to whether or not the FEIR cures this deficiency and adequately analyzes the Project’s compliance with the General Plan and OGCP. As discussed below, CPRL believes the answer is “no”. Rather, the FEIR offers conclusory (and incorrect) representations that the construction of an industrial-type facility, including a monopole, building, fencing and parking, would enhance and expand the adjacent Park. This statement directly conflicts with the court’s finding. As a result, the FEIR is inadequate and fails to appropriately discuss, analyze and substantiate the conclusion that the Project would have a less than significant impact on land use.

On this issue, the FEIR takes two approaches. The response is twofold. First, the County bluntly states that it disagrees. This discussion is repeated in several places, but can be viewed in the FEIR, page 3 – 14, as follows:

“The County disagrees that this is inconsistent with the goals and objectives of the Oak Glen Community Plan related to open spaces, parklands, and other recreational
opportunity. A Radio Broadcast Facility is, in fact, an allowed use within both the applicable General Plan and Community Plan land-use designations."

This statement includes no facts and no meaningful analysis. The FEIR just says the County disagrees and cites, as evidence of consistency, the fact that radio towers are an allowed use (even though a CUP is required) under the existing land use designations. Conclusory responses are insufficient; they must be supported by factual information and good faith, reasoned analysis. People v. County of Kern, 39 Cal.App.3d at pp. 840–842, 115 Cal.Rptr. 67.; Laurel Heights Improvement Assn. v. Regents of Univ. of California, 47 Cal. 3d 376, 404, 764 P.2d 278, 290 (1988).

The FEIR also cites the fact that Lazer will grant an open space easement over the large portion of their approximate 40-acre parcel, excluding only the area in which the tower, fencing and equipment building will be located. This analysis is exactly the same as the land use consistency analysis included in the MND. In analyzing this issue, the court found that Lazer’s intent to permit open space use of the remainder of its parcel was inadequate evidence to show consistency with General Plan and Community Plan goals and objectives. In addition, the court cited the 2009 findings of the BOS when the Lazer project was denied. In those findings, the BOS expressly found that “construction of the radio tower project will be contradictory and detrimental to a primary goal of the State Park, which is to provide a pristine wilderness experience to park visitors.”

By this reference, the undersigned hereby incorporates into the administrative record for the current project the following: (i) the BOS findings of 2009 which supported denial of the project, (ii) all of the citizen testimony in all prior hearings relating to the Lazer tower project, including all hearings from 2008 through 2017. In addition, the full administrative record relating to the CEQA lawsuit is hereby incorporated in its entirety as if attached hereto and set forth in this comment letter.

In summary, the Response to Comments relating to inconsistency with General Plan and Community Plan goals and objectives is conclusory and lacking in any evidentiary basis. Such discussion fails to cure the defects in the consistency analysis as described in the Ruling on Judgment of the court in the CEQA Case.

4. Alternative sites.

CPRL has previously submitted the following analyses prepared by qualified FCC engineers: (1) Engineering Analysis & Statement dated January 2009 prepared by Klein Broadcast Engineering (“Klein Report”), and (2) Engineering Statement dated March 2011 prepared by De La Hunt Communication Services (De La Hunt Report”). Such reports are incorporated herein by this reference. Both of these engineers are highly qualified. De La Hunt worked for the FCC for many years in the department which made determinations as to whether or not proposed tower locations were compliant with FCC rules and regulations, including spacing and line of sight requirements. Both of these engineers concluded that a site in
Beaumont, California (ASR #1263499) (Site 1) and a site located in Cherry Valley, California (ASR #1202850) (Site 2) qualified under all FCC rules and requirements.

In prior applications and hearings, Lazer, its engineers and attorneys have consistently taken the position that the proposed Oak Glen site, located adjacent to the Park, was the only site in the entire region that would satisfy both FCC requirements and Lazer’s business objectives. Now, an engineering firm (Cavell Mertz and Associates, Inc.) has been hired to provide another engineering statement ("CMA Report").

The CMA Report includes a discussion of alternate sites, but makes a major error in its analysis. Rather than reviewing all possible sites that meet the FCC requirements for locating an FM radio tower, the CMA Report only analyzes sites for which there currently exist Antennae Structure Registrations ("ASR"). The ASR System is an online system that stores the location, height, marking and lighting, and other information on all antenna structures that are registered with the FCC.

The myopic focus on sites with only with ASR ignores a large portion of the area which could be analyzed as alternate sites. The approach also is inconsistent with the fact that the Project site, adjacent to the Park, was not an ASR at the time the property was identified and purchased by Lazer. Rather, Lazer did a complete analysis of sites within the “area to locate” and found a site that worked for them. Had they limited their search to sites with ASR as the CMA Report does, they would never have identified the Project site.

The Engineering Statement (Goldman Report) prepared by Goldman Engineering Management, LLC, dated July 20, 2016 (Goldman Report), has previously been submitted as a CPRL comment in connection with the July 21, 2016 letter. FCC engineer Bert Goldman has also analyzed the “area to locate” in which the FCC spacing and interference requirements are satisfied for the location of a radio tower. That area constitutes 36.3 mi.². Attached to this letter is a copy of Bert Goldman’s power point presentation, including a reverse shadow map which shows the areas in which FCC spacing rules would be satisfied that provide large areas within both Riverside County, as well as San Bernardino County, where the FM radio tower could be located.

Lazer has failed to analyze any of these areas, except the Project location and locations with an ASR. Failure to analyze alternate sites within the “area to locate” does not constitute a good faith attempt to find an alternative location in which FCC spacing rules, as well as Laser’s business goals, would be satisfied. Rather, Lazer has adopted the strategy of claiming that there is only one site “in the world” that works, namely the Project site immediately adjacent to the Park.

In connection with review of the FEIR, CPRL asked Goldman to conduct an additional review of potential alternative sites. Although there are many potential sites within the 36.3 sq
km "area to locate", the following seven sites have been specifically identified by Goldman as sites that will comply with FCC spacing and interference rules:

<table>
<thead>
<tr>
<th>Alternate Site</th>
<th>Population Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yucaipa A</td>
<td>3,116,383</td>
</tr>
<tr>
<td>Yucaipa B</td>
<td>2,948,364</td>
</tr>
<tr>
<td>Yucaipa C</td>
<td>2,834,814</td>
</tr>
<tr>
<td>Calimesa A</td>
<td>2,763,052</td>
</tr>
<tr>
<td>Calimesa B</td>
<td>3,150,286</td>
</tr>
<tr>
<td>Beaumont</td>
<td>2,555,945</td>
</tr>
<tr>
<td>Gilman Hot Springs</td>
<td>1,727,699</td>
</tr>
</tbody>
</table>

In response to suggested alternatives that comply with FCC spacing and interference rules, the Response to Comments (page 3-12), responds as follows:

"Under Guidelines Section 15126.6 (f) (1), it is beyond the scope/jurisdiction of the County to weigh the merits and demerits of an alternate site/project that involves another jurisdiction's goals and policies."

This response is repeated several times to justify the County's refusal to consider alternative sites located within the County of Riverside. This is a fatal defect in the alternatives analysis because it fails to comply with California law. The County's position that CEQA Guidelines section 15126.6 (f) (1) categorically excludes alternatives in another jurisdiction in all circumstances does not accurately reflect the law.

CEQA Guidelines Section 15126.6 (f) (1) provides as follows:

"(f) Rule of reason. The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making.

(1) Feasibility. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or
otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives. *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *see Save Our Residential Environment v. City of West Hollywood* (1992) 9 Cal.App.4th 1745, 1753, fn. 1).”

By its own terms, the cited rule states a “rule of reason”. The rule states that among the factors that may be taken into account are jurisdictional boundaries; however, the guideline also state that “projects with a regionally significant impact should consider the regional context”.

In California Environmental Quality Act, Stephen L Kostka and Michael H Zischke, §1532, jurisdictional boundaries, the authors provide as follows:

“The location of an alternative site beyond the territorial jurisdiction of the lead agency is a factor the lead agency may consider in determining whether the site is a feasible alternative. 14 Cal Code Regs §15126.6(f)(1). In *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 575, 276 CR 410, the court noted that an EIR need not undertake a review of alternatives “which cannot be reasonably realistically considered and successfully accomplished,” and held that a lead agency could properly find that a site was a feasible alternative when it was beyond its jurisdiction. 52 Cal.3d at 575. The court also explained, however, that jurisdictional boundaries do not establish an ironclad limit on feasible off-site alternates, and are instead a factor to consider among others in assessing whether another site might be a feasible alternative.” [Bold Added]

The purported rule cited by the County in the FEIR, that alternatives in another jurisdiction need not be considered, is incorrect. Under the above-cited guideline, CEQA establishes a rule of reason as to alternatives (including those in another jurisdiction) that should be considered. In this case, the County has completely ignored the fact that, pursuant to federal law, Lazer is required to provide service to the City of Hemet, which happens to be located in the County of Riverside. So, because of these FCC spacing and interference limitations (and contrary to the County’s position), most alternative sites would need to be located within the County of Riverside because 80% of the city of Hemet must be provided service pursuant to federal law. Therefore, in light of the FCC requirement, it is unreasonable and inappropriate to suggest that sites within the County of Riverside (where services are required by federal rule) are categorically excluded and need not be considered within the range of alternatives.

Another factor that comes into play is the regional nature of the Lazer tower. In *Banning Ranch Conservancy the City of Newport Beach* (Newport Banning Ranch LLC, et al., Real Parties in Interest (2017) ___ Cal. 5th ___ (published March 30, 2017), the court addressed the issue of project alternatives in the context of a regionally significant project. In that case, the city
of Newport Beach argued that it was not required to analyze environmentally sensitive habitat areas because that was within the jurisdiction of the California Coastal Commission, citing CEQA Guideline §15126.6. On this issue, the Supreme Court ruled as follows:

“The Guidelines specifically call for consideration of related regulatory regimes, like the Coastal Act, when discussing project alternatives. An EIR must ‘describe a range of reasonable alternatives to the project,’ or to its location, that would ‘feasibly attain’ most of its basic objectives but ‘avoid or substantially lessen’ its significant effects. (Guidelines, § 15126.6, subd. (a).) Among the factors relevant to the feasibility analysis are ‘other plans or regulatory limitations, [and] jurisdictional boundaries (projects with a regionally significant impact should consider the regional context).’ (Id., subd. (f)(1).) By definition, projects with substantial impacts in the coastal zone are regionally significant.” [Page 20 of Opinion] [Bold Added]

Decisions as to the feasibility of alternatives and mitigation measures are subject to a rule of reason. (Goleta Valley, supra, 52 Cal.3d at p. 565; Laurel Heights Improvement Assn. v. Regents of University of California, supra, 47 Cal.3d at p. 407 (Laurel Heights I); see Guidelines, § 15126.6, subd. (f)(1).) No one factor establishes a categorical limit on the scope of reasonably feasible alternatives to be discussed in an EIR. (Goleta Valley, at p. 566; Guidelines, § 15126.6, subd. (f).) Here, however, the City’s EIR omitted any analysis of the Coastal Act’s ESHA requirements. It did not discuss which areas might qualify as ESHA, or consider impacts on the two ESHA delineated in the Coastal Commission’s consent orders. As a result, the EIR did not meaningfully address feasible alternatives or mitigation measures.1 Given the ample evidence that ESHA are present on Banning Ranch, the decision to forego discussion of these topics cannot be considered reasonable. [Pages 20. 21 of opinion]

[Where comments from responsible experts or sister agencies disclose new or conflicting data or opinions that cause concern that the agency may not have fully evaluated the project and its alternatives, these comments may not simply be ignored. There must be good faith, reasoned analysis in response.’ ” (People v. County of Kern (1974) 39 Cal.App.3d 830, 841-842; accord, Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn. (1986) 42 Cal.3d 929, 935 (Concerned Citizens).) Rather than sweep disagreements under the rug, the City must fairly present them in its EIR. [Page 25 of opinion]

The Project clearly is regional in nature. The radio tower will reach broad areas within the counties of San Bernardino and Riverside County and possibly Los Angeles County, as well.
While the proposed tower is located in San Bernardino County, the community of service technically is the City of Hemet in the County of Riverside. The technical rules governing where the tower can be located (including spacing and interference rules) are adopted by the FCC. The rule of reason set forth in CEQA Guideline §15126 can only be interpreted as requiring that the Project’s alternatives analysis include feasible locations within the County of Riverside. The County fails to do that and, in fact, takes the contrary position that there is an ironclad (yet unspecified) rule that it has no obligation to do so. As a consequence, the County’s alternatives analysis is fatally defective because the DEIR and the FEIR fail to analyze feasible, FCC compliant alternatives suggested by CPRL (through the three engineering statements submitted), which are located in the County of Riverside.

5. **Historic/Archeological/Paleontological Impacts.**

The Land Use Application Questionnaire (questions 11 and 23) asserts there are no known cultural or historic resources on site. However, the application also admits that the site has not been surveyed for historical, paleontological or archaeological resources. Such surveys must be performed under CEQA.

CPRL retained David Earle ("Earle") for the purpose of conducting a study of Indian history and cultural resources located in the Wildwood Canyon area. Earle is an ethnographer in the Department of Anthropology at Antelope Valley College, who has spent decades studying Indian history in Southern California, as well as other areas of the country.

Earle completed a study entitled "Preliminary Report on Wildwood Canyon Region Ethnographic Research ("Earle Study"). A summary of the findings is set forth below:

A. Wildwood Canyon is a “cultural landscape” as defined by the National Park Service and the Advisory Council on Historic Preservation;

B. Native settlements occurred in the Pisgah Peak mountain and Wildwood Canyon areas.

C. Springs fed by water flow from upslope areas were an important factor in native settlement of the Wildwood Canyon Region; such springs were considered sacred by the local Indian tribes;

D. Trails were an important element of the native cultural landscape. Sources suggest that the trail ascended Water Canyon and then across the Ridge to the north to connect with the West End of Potato Canyon. Native trails often featured shrines (conical mounds of stone) that were gifts to the supernatural.

E. Santos Manuel and John Harrington visited Wildwood Canyon in 1918. Santos Manuel identified this as an area where were bears (humans that were grizzly bears in form) were found.
F. The mountain ridge bounding Water Canyon on the west was recalled by Santos Manuel as being called Ahenemenat. He noted that the name was derived from the Serrano term for Eagle indicating the potential religious aspect of the area.

The County has failed to study in any way the important Indian history associated with Wildwood Canyon and the surrounding hillsides as part of the Cultural Resources analysis in the FEIR and DEIR. The Earle Study shows that there was an Indian village immediately adjacent to the Project site, which requires further evaluation under CEQA. Therefore, the FEIR fails to properly analyze the impact of a radio tower visible to the immediately adjacent areas where there were Indian villages and significant findings of religious and daily activities by local Indian tribes.

6. **FEIR is Inadequate Under CEQA and Must Be Rejected.**

For the reasons stated above, as well as the reasons set forth in our July 21, 2016 letter, the FEIR is inadequate under CEQA for its failure to properly analyze all of the Project’s potentially adverse impacts to the environment. These defects in the environmental analysis also render the County’s CEQA Findings and Statement of Overriding Considerations fatally flawed, as well.

We at CPRL appreciate your consideration, and reserve all of our rights. We ask that the BOS reject this ill-advised Project once and for all.

Please feel free to call me with any questions or comments you may have.

Very truly yours,

MIRAU, EDWARDS, CANNON,
LEWIN & TOOE

By: [Signature]

John K. Mirau, Esq.

C w/o Encl: Supervisor James Ramos
Mayor Dick Riddell
Mr. David Myers, The Wildlands Conservancy
Mr. David Miller, Yucaipa Valley Conservancy
Bert Goldman
Background

- Broadcast engineer for over 40 years
- Corporate VP of Engineering for
  - Shamrock Broadcasting (Roy Disney Family)
  - Nationwide Broadcasting (Nationwide Insurance)
  - ABC/Disney
    - Owned and Operated radio stations
    - ESPN Radio
    - ABC Radio Network
    - Radio Disney
- Last 15 years focused on relocating and upgrading radio stations
Criteria for Site Selection

- Distance to other protected radio stations (interference)
- Line of sight to the community of license
  - 80% of population must be covered
  - 80% of community area must be covered
- Can use either of two methods to show coverage
- Good line of sight to maximum population

\[1\text{Use of an existing site was NOT made a criteria, as the currently proposed Oak Glen site is similarly not built}\]
Potential Alternative Sites Within 36.3km² Area to Locate
Multiple Alternative Tower Sites Within 36.3km² ATL
# Potential FCC Compliant Tower Sites

<table>
<thead>
<tr>
<th>Alternate Site</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Twr Hgt</th>
<th>Population Covered*</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Site</td>
<td>N34° 01' 41&quot;</td>
<td>W116° 58' 40&quot;</td>
<td>9.4m</td>
<td>3,000,411</td>
<td>Prop Oak Glen Site</td>
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<tr>
<td>Current KXRS</td>
<td>N33° 41' 17&quot;</td>
<td>W116° 55' 32&quot;</td>
<td>14m</td>
<td>548,645</td>
<td>Existing KXRS</td>
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<td>1, Calimesa</td>
<td>N33° 59' 22&quot;</td>
<td>W116° 59' 24&quot;</td>
<td>11m</td>
<td>2,763,052</td>
<td>Past end of Cherrystone Av</td>
</tr>
<tr>
<td>2, Yucaipa</td>
<td>N34° 01' 02&quot;</td>
<td>W116° 57' 24&quot;</td>
<td>25m</td>
<td>3,116,383</td>
<td>Better than OG Site, E OG RD.</td>
</tr>
<tr>
<td>3, Yucaipa</td>
<td>N34° 01' 19&quot;</td>
<td>W116° 57' 01&quot;</td>
<td>40m</td>
<td>2,948,364</td>
<td>East of OG Rd.</td>
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<tr>
<td>4, Beaumont</td>
<td>N33° 59' 36&quot;</td>
<td>W116° 58' 37&quot;</td>
<td>120m</td>
<td>2,555,945</td>
<td>Current ASR 1202850</td>
</tr>
<tr>
<td>5, Yucaipa</td>
<td>N34° 01' 00&quot;</td>
<td>W116° 57' 46&quot;</td>
<td>125m</td>
<td>2,834,814</td>
<td>End of Oak Crest Dr.</td>
</tr>
<tr>
<td>6, Calimesa</td>
<td>N33° 59' 51&quot;</td>
<td>W116° 59' 30&quot;</td>
<td>10m</td>
<td>3,150,286</td>
<td>Better than OG site</td>
</tr>
<tr>
<td>7, Gilman H.S.</td>
<td>N33° 50' 29&quot;</td>
<td>W116° 58' 39&quot;</td>
<td>10m</td>
<td>1,727,699</td>
<td>On existing access Rd.</td>
</tr>
</tbody>
</table>

- Sites are unbuilt in the same way as the proposed Oak Glen site is unbuilt
- Derived from the 36.3km² “Area to Locate”
- All sites are at least a 300% improvement in population covered. Most are over 500% improvement
- All sites vetted for FCC compliance to Hemet
- Two Sites better than Oak Glen site (Alt 2, 6)

*60dBu
SUMMARY OF DAVID EARLE INDIAN STUDY

1. Cultural Landscape. The Wildwood Canyon area is a "cultural landscape" as defined by the National Park Service and the Advisory Council on Historic Preservation. Native American cultural landscapes include places and areas that were and are culturally significant to the native inhabitants and their ancestors. Cultural landscapes were composed of native places (sometimes these were larger landscape features like mountains or canyons) that were often named and fit into a wider landscape or spatial-geographic panorama that had distinctive cultural meaning for native people which was in part religious and supernatural.

2. Sacred Springs. Springs fed by subsurface water flow from upslope areas were an important factor in native settlement of the Wildwood Canyon region. Houghton Sping is located in Wildwood Canyon on the road to the Hi-Up property, and a second spring was apparently located nearby. Just southeast of the confluence of Water Canyon and Wildwood Canyon was another spring identified by Manuel Santos as Pa’uva’t Spring, which according to him meant "full of water". Native people of Southern California and the eastern California desert believed that springs were sacred places. They were often associated with water spirits of various kinds. John Harrington (noted nineteenth century ethnographer) told about a class of beings that lived in springs and under the earth, and noted the parallel to the Serrano belief in water spirits. It was also widely believed that springs were interconnected, and that supernatural beings that lived in springs could travel underground from one spring to another by a sort of subterranean highway. The springs in Serrano territory were believed to have been created by the founder deity coming from the east across the desert and using a magical staff to perforate the surface of the earth in order to create individual springs.

3. Trails and Sacred Shrines. Trails were also an important element of the native cultural landscape. Sources suggest that a trail ascended Water Canyon and then crossed the ridge to the north to connect with the west end of Potato Canyon. Another trail probably ascended the floor of Wildwood Canyon, and a portion of this trail in the upper canyon is shown on an 1897 General Land Office plat map. The trails were sacred to the Indians. Native trails often featured shrines (conical mounds of stones) that were gifts to the supernatural and believed to give the hunter good fortune in the hunt and the traveler supernatural aid.

4. Wildwood Canyon Were-Bears. When Santos Manuel and John Harrington visited Wildwood Canyon in 1918, Manuel recalled the name of Huhuj'ava't Mountain, the mountain mass surrounding Pisosha Peak and bounded by Water Canyon on the west and Wildwood Canyon on the south and southeast. Manuel remembered that it was an area where were-bears (humans that were grizzly bears in form) were found. These were-bears had shamanic powers and were greatly feared. Manuel noted that native people living in the region were concerned about encountering these supernaturally powerful were-bears.

5. The Eagle Place. The mountain ridge bounding Water Canyon on the west was recalled by Santos Manuel as being called Ahenemenat. He noted that the name was derived from the Serrano term for Eagle. The eagle was the representation of a supernatural being, Eagle, that had accompanied the founding chief into the area from the north. Eagle thus became associated with the office of chief. In ancient times, an elaborate eagle sacrifice was held by each local group or clan. The eagle sacrifice ceremony was said to have been first held in the aftermath of the death and cremation of the cultural hero Kukfitat.

6. Indian Habitation of Wildwood Canyon. The availability of spring water in the Wildwood Canyon region permitted the Serrano to occupy the same locality with habitation sites. Reliable springs were very important and were a principal determinant of the location of both temporary seasonal camps and permanent winter villages. Native settlement occurred in the Pisosha Peak mountain and Wildwood Canyon areas, including the upper part of the Wildwood Canyon drainage. Santos Manuel's recollection of the named native spring of pa'uva't in Wildwood
Canyon just upstream from the Junction of Water Canyon and Wildwood Canyon suggest that there was a settlement in this area.

7. Wildwood Canyon—Traditional Use Area. Wildwood Canyon was a traditional use area used by native groups to acquire important resources. The Wildwood Canyon region contained traditional use areas for rabbit and deer hunting. Serrano accounts of rabbit hunting generally tend to emphasize jackrabbits. Bow hunting of jackrabbits was described by Manuel Santos for hunting that took place in Water Canyon. Rabbit hunts that involved the setting for a nighttime feast that involved dancing and the singing of traditional sacred songs.

8. Acorn Harvests. Acorns were also a key food resource. Santos Manuel noted that the area of the Pisgah Peak mountain and Wildwood Canyon was an important acorn collecting area for native people. Native occupation of the region would have included the period of acorn harvest in October and early November. Acorn harvests are also known to have been the occasion for inter-clan fiesta gatherings. Manuel Santos suggested that the landscape of the oaks (in additional to the pine trees in the mountains) were the supernaturally transfigured remains of what had been the first people who had mourned the death and cremation of the culture hero Kukitat.
Preliminary Report on Wildwood Canyon Region Ethnographic Research

David D. Earle

Introduction

This document provides a preliminary overview and background on native use of the Wildwood Canyon region and adjacent areas included in the territories of the Pavi’kajam and Jukai’pa’t clans of the Serrano. It is also intended to provide an orientation regarding the kinds of information on local native life that research has so far yielded and how that information can be interpreted. This has made it advisable to provide some background discussion about issues such as the characteristics of Serrano clans and clan settlements, Serrano involvement with the Franciscan mission system, and 20th century sources of ethnographic information on the Serrano. Particularly important for the last topic was the collaboration between Serrano elder Santos Manuel and Bureau of American Ethnology linguist and ethnographer John Peabody Harrington.

This overview has emphasized the value of documenting and interpreting native use of the Wildwood Canyon region in the wider context of the activities of the Pavi’kajam clan. A reconstruction of the cultural landscape layout and the settlement and land-use activities of the Pavi’kajam clan provides a more satisfactory context for interpreting native life in the Wildwood Canyon region.

This document also provides a point of departure for further research on the Pavi’kajam and Jukai’pa’t clans and their use of the Wildwood Canyon area. This further work will continue to focus on the identification of native activity areas on the ground, reconstruction of local cultural landscapes, and the identification of areas of possible native religious and supernatural significance.

Serrano Clans

Individual Serrano families belonged to a larger grouping of people connected by both kinship ties and bonds of a religious nature. This larger grouping is referred to by anthropologists as a clan, or occasionally as a sib. This clan group was made up of people who shared the same line of male ancestors through the father’s side of the family. Both males and females belong to a clan. This meant that siblings and cousins related to each other through a common grandfather, great grandfather, and so on, were members of the same clan. However, marriage was not permitted inside the clan,
so that at marriage a person would find a spouse in another clan. In addition, it was customary that the female bride would leave the clan she was born into to reside at the clan of her husband. This practice emphasized the idea that within a clan the related men stayed put within the clan village and territory throughout their lifetimes—females did the moving. In addition, a person seeking a spouse in another clan had to look within a clan that was of opposite ritual moiety affiliation to the clan the person belonged to. The ritual moiety system was based on the idea, commonly found in small-scale human societies, that all the clans were divided into two groups (or moiety divisions) for religious purposes. In the case of the Serrano and other native groups in southern California the two ritual categories were Coyote and Wildcat. This means that for each of these two divisions, either a supernatural Coyote being (Coyote moiety), or a supernatural Wildcat being (Wildcat moiety) was their totem and representative. This was important for religious and social life. Someone getting married had to find a spouse in another clan that belonged to the opposite moiety group. In addition, clans tended to favor political alliances, the lending and borrowing of food resources, and the lending of assistance in carrying out religious rituals with clans of the opposite moiety affiliation. Thus clans that intermarried because of opposite moiety membership also tended to help each other out in economic, political, and ritual situations.

An individual Serrano clan was often associated with a permanent headquarters village. This is often referred to by anthropologists as a winter village, since clan members tended to congregate here year after year during the colder and wetter winter months. Such a village contained a ceremonial house and dance area, a chief's house, a cemetery, a sweat lodge, and a menstrual hut. In addition, the clan chief or paha (ceremonial assistant) was the custodian of the clan's sacred bundle. This consisted of sacred items—seagrass matting, feather bundles, and shell beads, for example—that embodied the supernatural spirit and identity of the clan as a whole. Thus the clan as a group also had a supernatural identity.

The Serrano clan was not just a place, but a territory. Individual clans occupied defined territories on the landscape that appear to have had fixed boundaries. In the case of Serrano clans located on the edges of the San Bernardino mountain range, clan territories tended to run uphill and downhill. They tended to be located around canyons that provided access to upland resources like pinyon pine nuts. Some clans had territories that extended all the way up to the top of the San Bernardino range, in the vicinity of what is now Big Bear Lake. Higher altitude areas like the top of the range provided temporary campsites in the summer for hunting and gathering. In the wintertime, downslope winter village settlements in the canyons or at the mouths of
canyons were occupied. During the warmer months of the year, individual families or
groups of families could take excursions away from the headquarters winter village to
occupy temporary camps and subsidiary village sites. Some clans may have had
subsidiary settlements that were occupied during much of the year. The clan territory
thus consisted of a range of different habitats and landscapes, with camps and village
sites, bedrock milling areas, trails and trail shrines, rock art sites and other places of
supernatural significance, prime hunting and gathering areas, and springs and stream
courses. Anthropologists consider such clan territories that contain areas with these
features to be cultural landscapes, where a number of localities and activity areas used
by native people are embedded in the natural landscape.

Religious and ritual activities associated with clans included periodic mourning
 ceremonies, hosted every several years by a clan at its clan headquarters village. The
 ceremonies commemorated members of the community who had died since the last
 morning ceremony. It involved the burning of the property of the dead, and also the
 exchange of food and other gifts by the host with allied clans that had been invited to
 the ceremony. This multi-day ritual sequence also involved ritual dancing and singing
 and the burning of images of the dead. This ceremony was separate from rites of
 cremation that were held soon after the deaths of individual people. Certain other
 ceremonies, including male and female initiation and ceremonies for the naming of
 infants were also carried out at the headquarters village. In addition, however, fiestas
 could also be held at locations away from the main village where several clans would
 assemble for the gathering of acorns or Pinyon pine nuts. This fiesta could also involve
 group hunting of deer or rabbits, and often included both social dancing and also
 singing and dancing of a religious nature, related to the hunting or harvesting of these
 food sources.

Research on Serrano Political Geography- Native Places and Clan Territories

Research by anthropologists to identify Serrano village and clan locations, and other
 native places, began with the work of Alfred Kroeber during the first decade of the
twentieth century. He visited the Morongo Reservation at Banning, and collected some
 Serrano village and place names (Kroeber 1925:617-618). Kroeber’s colleague from the
 Department of Anthropology at U.C. Berkeley, Edward Gifford, collected information
 on Serrano clans in the later teens (Gifford 1918). In 1918-1919, John P Harrington of
 the Bureau of American Ethnology carried out field research with Serrano consultants,
as is discussed further below. He collected a great deal of information on clans and
 Serrano political geography (Harrington 1986). In 1922, Ruth Benedict carried out
ethnographic research on the Serrano, and collected information on clan territories (Benedict 1924). In around 1924, William Duncan Strong, a student of Kroeber's, also worked with Serrano consultants, who provided information on Serrano clans (Strong 1929). All of these researchers worked with elderly consultants but faced difficulties in getting complete information about clan territories and political geography. There were significant discrepancies between the lists of clans assembled by the different researchers. However, Harrington's work, especially with his primary consultant, Santos Manuel, provided the most comprehensive body of data about clans and native places within individual clan territories. Therefore, his information about the Yucaipa and Wildwood Canyon areas has proved especially useful.

Santos Manuel (1839 Yukon?-1919)

Santos Manuel (known to John Harrington as Manuel Santos) was a Captain or chief of the Yuhaviatum (or Kutsáviam) clan of the Serrano. The Yuhaviatum had lived on the lower and upper Santa Ana River, and further north around Big Bear. Ruth Benedict was told that the clan was located at 'The Pines', on the upper Santa Ana River near Seven Oaks, and at 'Big Meadows', seven miles to the east. The clan territory also included Atán’pa’t on the south side of modern Big Bear Lake, a summer settlement where Santos Manuel had told John Harrington he was born (Harrington 1986:49). Santos noted that during the wintertime members of his clan moved down slope from the country around Big Bear Lake, since in former times snow was very abundant in the mountains in the winter.

Manuel’s father Antonio belonged to the Yuhaviatum clan, while his mother was a Colorado River ‘Paiuache’, probably a Chemehuevi. Although various sources provide birthdates for Manuel as early as 1810 and as late as around 1858, official San Manuel reservation rolls from 1897 indicate that he was born in around 1839, and his son Tomás in circa 1865 (Laird 1975:105). These dates fit better with the accounts of incidents in his own life that were provided to anthropologist John Harrington than the very early or late dates.

Santos Manuel was an especially important source of information regarding the Serrano clans, including the Jukalpat and the Pavíkajam, for several reasons. First of all, he had lived in the Yucaipa Valley, apparently as an adult. In addition, his own clan, the Yuhaviatum, had originally been located to the west of the east side of the San Bernardino Mountains and the Morongo Valley area. He did not recognize the Marengayam clan of Morongo Valley as the highest status Serrano clan. His testimony
suggests that, for his group, the Ataviatam [Aturlaviatam] clan was the senior group in terms of political prestige, and not the Marengayam. He thus had different information and a different perspective on clan organization and clan territories from other anthropological consultants who were members of the Marengayam clan itself. The Marengayam clan was head of a group of clans living in historic times on the east slopes of the San Bernardino Mountains. Santos Manuel had greater knowledge about Serrano clans in southern and western Serrano territory that had been largely depopulated by movement to Mission San Gabriel.

John Peabody Harrington

John Peabody Harrington (1884-1961) was a linguistic and ethnographic researcher who spent virtually his entire career as for the Bureau of American Ethnology of the Smithsonian Institution. Harrington worked for the BAE during 1915-1955, although his California field research began around five years earlier. He worked with Native American consultants in North and South America and recorded at least 130 native languages. He left more than 700 linear feet of field notes at the Bureau of American Ethnology, in his obsessive pursuit of the goal of recording and preserving endangered Native American languages. In California he carried out field research with the Chumash (1912-1915), the Kitanemuk (1916-1917), before working with Serrano consultants in late 1918 and early 1919. Harrington’s notes are usually not dated, but one of his note pages from work with Santos Manuel is dated October 19th, which would indicate fieldwork in the fall of 1918. His Serrano research included intensive work with Santos Manuel (known to him as Manuel Santos) and his son Tomás Manuel. This included not only interviews with Santos Manuel at the San Manuel reservation, but a number of place name trips by automobile with Santos and his son Tomás. These trips took them around the San Bernardino Mountains and down the Mojave River as far as Barstow. Harrington and Santos Manuel also traveled through Wildwood Canyon and Oak Glen and down Little San Gorgonio Creek canyon during these travels. Harrington also interviewed other Serranos, but Santos and Tomás Manuel were his key sources of information.

Serrano Clans in the Yucaipa and Wildwood Canyon Areas

The Jukaipat clan was recorded by both Benedict and Strong as located in the Yucaipa Valley. A few members of this clan are listed as having been baptized at Mission San Gabriel. Santos Manuel recalled that native settlement was scattered across the
Yucaipa Valley (Figure 1). Manuel himself had lived in the valley, probably in the late 1850s or 1860s. He and other Serranos who were resident in the valley at the time maintained livestock, and he recalled having had 50 head of horses. He also recalled that Jukaiapat residents were accustomed to ascending Mill Creek to reach upland areas where deer hunting and the gathering of pine nuts could be carried out. Several Harrington consultants recalled the forcible removal of Jukaiapat residents from the valley, apparently in the 1860s, probably around the time of the establishment of the Dunlap ranching operation. One account of this episode claimed that the Jukaiapat residents and their belongings had been taken down to Banning and dumped on the side of the road. It is likely that native residents of the Yucaipa Valley area were also affected by several serious outbreaks of smallpox- the first in 1862-1863 and the second in the mid-1870s. Santos Manuel recalled having fled with his family up the Santa Ana River Canyon to the Seven Oaks area to escape the smallpox.

Figure 1: Harrington Sketch Map Showing Yucaipa Valley, With The Predecessor to Sand Canyon Road to the Left, and the Site of Santos Manuel’s House and a Tule Pond to the Right (Harrington 1986:663).

The San Bernardino Valley had been the site of a mission rancho established by Mission San Gabriel that had brought in numbers of Gabrieleno/Tongva neophytes as ranch workers. In addition, by the early 1850s a large number of Mountain Cahuilla under chief Juan Antonio had re-settled at Saahatpa in San Timoteo Canyon from a former location at Polintana. They had been brought into the area to help stop the depredations of Native American stock raiders coming out of the desert by way of Cajon Pass and San Gorgonio Pass. The 1860 U.S. Decennial census listed more than 3,000 native people living in this part of San Bernardino County, including Gabrielenos, Cahuillas, and
Serranos. These populations were decimated by the 1862-1863 smallpox outbreak. Both disease and the expansion of Anglo American ranching operations disrupted the patterns of native settlement that had developed after the secularization of the Franciscan missions in the 1830s. During the years from the 1830s to the 1860s, native communities in the region consisted of ex-neophyte returnees from the mission system and individuals and families that had never been baptized.

The Jukaipat clan was recalled by Santos Manuel as involved in an incident while hunting rabbits in the Wildwood and Water Canyon region. This hunt was carried out by igniting the brush. It was recounted that a man who was intent on his bow-hunting of individual rabbits did not heed warnings to flee the fire, that had gotten out of control, and he was killed. At that time the clan settlement of Jukaipat had a cemetery where the man was buried.

However, Manuel also explained to Harrington that the Wildwood and Water Canyon areas had originally been part of the territory of the Pavi'kajam [Pava'kayam] clan, eastern neighbors of the Jukaipat clan (Bean et al. 1981:214). This extended from Wildwood Canyon eastward across Little San Gorgonio Creek canyon and southward to the base of this canyon in the direction of Beaumont. This clan was also recorded by Ruth Benedict as the Pavükuyam. The clan was placed by Benedict at Akavat, which she located at the mouth of Beaumont Canyon (Benedict 1924: 368).

In her 1922 fieldwork, Benedict interviewed Rosa Morongo, whom she noted as the wife of Capt. Ben Morongo, a chief of the Marenga clan at the Morongo Reservation. Benedict was told by Rosa Morongo that she had been born at Akavat, about 70 years before, or in circa 1852. Benedict stated that her research was focused on the more easterly Serrano clan groups:

The emphasis in this paper is upon the eastern, or Morongo Valley, Serrano. They are probably the only bands whose life can be reconstructed to any extent today. The western settlements removed almost bodily to the missions, and at the secularization in 1834 there were apparently too few survivors to reestablish tribal life. A very few returned to Akavat, north of Beaumont, Mrs. Morongo’s birthplace, but it was in the eastern regions of the pass that native cultures survived, though even here some Indians had been at the missions (Benedict 1924:366).

Benedict’s note that Serrano returned to Akavat suggests that this settlement was originally occupied by Serranos. William Duncan Strong also interviewed Mrs. Rosa
Morongo, some two years later. He claimed, unlike Benedict, that Mrs. Morongo was a Cahuilla by birth. He also stated that he had been told by Desert and Pass Cahuilla chiefs that she had been born at Pihatapa, a Pass Cahuilla village "at Banning Water Canyon", (Strong 1929:10). Thus, he said, she had not been born "...at Akavat, north of Beaumont (in Serrano territory)" (Strong 1929:10). It is possible that Rosa Morongo may have lived at Akavat at some point later in her life.

Strong thus clearly placed Akavat within the territory of the Serrano. As mentioned above, Benedict had placed the Pavükuyam [pavi'kajam] clan at Akavat, as had Santos Manuel. This was the fourth clan in her list of Serrano clans. Somewhat inexplicably, Strong decided that this clan actually corresponded to a Pass Cahuilla clan called Pisatañavitcem, located in Banning Water Canyon. This is clearly an erroneous interpretation on Strong's part.

Santos Manuel did note that the pavi'kajam did speak Serrano a little bit like Cahuilla, which also indicates that the clan probably intermarried with neighboring Pass Cahuilla. He was also asked about information collected by E. W. Gifford that the Marengayam clan had claimed both Jukalpat and Akavat. Santos Manuel disagreed with this information, which probably would have applied to the later nineteenth century. Manuel claimed, as was his habit, that the Ataiviatam [Aturiaviatam] clan was the most senior and supernaturally privileged of the Serrano clans, "el mayor de todos" [the most senior of all], and that it was they who claimed Jukalpat and Akavat.

The Jukalpat and Pavi'kajam Clans and Mission San Gabriel

The Spanish occupation of coastal California began in 1769, and was followed by the establishment of Franciscan missions dedicated to the conversion of the native population to Roman Catholicism. The policy of the Franciscan missionaries was to congregate native populations within the individual missions after baptism, rather than permitting them to continue to live in their home villages. While movement of native people to the Franciscan missions was officially supposed to be voluntary, there appear to have been situations where coercion was used. In Southern California, Mission San Gabriel Arcangel was founded in September 1771. For almost the next 30 years, until the founding of Mission San Fernando Rey de España in 1797, Mission San Gabriel was the center for the missionizing of native populations in the Los Angeles region, including the Gabrielino/Tongva. Very few Serrano had been missionized prior to 1795. During the next 10 years, members of some western and southwestern Serrano villages, especially children, were baptized at Mission San Gabriel. However, after Fr.
José María de Zalvidea became the energetic and harsh missionary manager at Mission San Gabriel in 1806, greater efforts were made to missionized the Serrano, as well as surviving Gabrielino/Tongva villages. Zalvidea’s treatment of both native people at his mission and of unconverted natives appears to have contributed to a revolt at Mission San Gabriel in November of 1810. This revolt was supported by some unconverted Serrano village leaders, by desert Chemehuevi, and by Mojaves of the distant Colorado River. A force of Mojave warriors reportedly numbering 600 traveled from the Colorado River and nearly reached Mission San Gabriel before turning back. The year following the revolt, military expeditions were conducted in Serrano territory and large numbers of Serranos from more southerly and westerly villages were baptized at Mission San Gabriel. The Spanish reaction to the revolt appears to have involved forced removal of village populations to Mission San Gabriel.

When native people were baptized at the Franciscan missions, the officiating priest recorded information about the baptized person in a baptismal register. Along with the date of baptism and the baptismal number, the priest customarily recorded the individual’s native name and native place of origin. This meant what the Franciscan priests called a rancheria or village, but which often also meant a clan grouping that used the village as their headquarters. The “ranchería name” recorded by the Franciscan priests was often not the name of a place but rather the name of the clan that the baptized individual belonged to. The baptismal register entry also recorded the individual’s estimated age, the Spanish name given at baptism, and single or married status. Information about relatives, baptized or unbaptized, was also sometimes provided in a baptismal entry. Parallel marriage records indicate which individuals had been married to one another before being brought to the missions. In the early decades of operation of Mission San Gabriel, the missionary priests had assumed that husbands and wives that had been married before being brought to the mission were born in the same clan village. However, in early 1810 it dawned on Fr. Zalvidea that this might not be the case. He commenced to check carefully with native couples that had been married before coming to the mission, as to whether the husband and wife had been born in the same village. After that point in time, virtually all previously married husbands and wives are recorded in the mission marriage records as coming from separate villages (and clans). Thus marriage information provides an important clue about interaction and alliances between clan villages.

Pavocoya [Pabocoya], a ranchería or settlement name for a Serrano group that appears to have been located east of the San Bernardino Valley is listed in the San Gabriel baptismal registers (Huntington Library 2006). This appears to correspond to the pava’kayam [Pavi’kajam] clan territory. The correspondence of the names is even
greater given that Harrington noted that Manuel's pronunciation of the name was close to Pav'u'kayam, and that it was used as both a singular and plural term (Bean et al. 1981:214). Eleven people originating at Pavocoya are recorded as baptized at Mission San Gabriel. The personal names of both males and females from this clan recorded in the baptismal registers indicate that they were Serranos and not Cahuillas. At least four of these people were adult females from the Pavocoya clan who had married into other villages. These villages were located to the south or west of Pavocoya territory. Both Pavocoya and the Jukaipat clan of Yucaipa were linked by marriage to several of the same villages located further west. They were also not indicated as having married one another. This would suggest that they may have been of the same moiety affiliation. William Duncan Strong (1929:11) recorded the moiety affiliation of Jukaipat as Coyote.

The first five of the baptisms of people originating at Pavocoya occurred in April and May of 1811, during the period of mass removal of Serranos to Mission San Gabriel after the mission revolt. All of the people baptized were adult females married into other villages that were subjected to the apparently forced removal of residents to Mission San Gabriel. This indicates that members of the Pavocoya clan had managed to avoid the roundup. Also suggesting this are the baptisms of a male adult in 1815, of two male adults in 1823 and 1824, and another male adult in 1832. In addition, an eight year old male child listed as originating at Pavocoya was baptized in 1824, hinting that it may still have been occupied in 1815-1816. This pattern of a very limited number of baptisms is also found for Jukaipat as well as for clan groupings like the Peaveatam and Marengayam, located on the east and north sides of the San Bernardino mountain range. In contrast to clan villages located on the San Bernardino Valley side of the range that were more thoroughly subject to removal to Mission San Gabriel, clan villages located further to the north and east tended to be less affected by this apparent roundup.

The Clan Territory of the Pavi'kajam [pava'kayam]

Manuel Santos and John Harrington visited the Wildwood Canyon region, apparently in the fall or winter of 1918-1919 (Laird 1975:105). Harrington described the trip as follows:

On our way from Redlands to San Jacinto after passing Jukai'pa' we left the traveled road to San Jacinto, taking a road which went up a canyon
[Wildwood or Hog Canyon], then up a grade and then down another canyon [Little San Gorgonio Creek] into Beaumont.

As a result of this trip at least 3 sketch maps were prepared by Harrington showing landscape features and native places in the vicinity of the Wildwood and Little San Gorgonio Creek canyons. These depicted a number of places that Manuel listed as located within the clan territory of the Pavi’kajam.

Manuel elsewhere stated the following about places within the territory of the Pavi’kajam:

This tribe cuidaban (took care of) [various places]. When I asked how the pava’kajam talked, informant says they talked poco como a little like Cahuilla. They cuidaban pátskiiwiat, pihátapa’t (Ben [Morongo] lives there now but it was not Mariña territory), akáva’t, pă’uva’t, hůhu’java’t, ʔahą’qamanat. But apa’hanat was territory of the apa’hanatam. The pava’kajam are nearly all dead. One woman of this tribe came to Highlands reservation recently. Kiwana’t and hiklhaveat are also pava’kajam territory--- all the region hitherward from and including the last mentioned two places was pava’kajam (Bean et al. 1981:27-28).

This comment indicates that the pava’kajam survived into post-mission times, that Manuel knew members of this group, and that his comment about their speech was from direct observation. This strengthens the reliability of his identification of the pava’kajam as a Serrano and not a Pass Cahuilla group.

The enumerated places included the following:

1) Hůhu’java’t:

This is the mountain mass located to the east of Water Canyon, to the west of Little San Gorgonio Creek, to the north of Wildwood Canyon, and to the south of the Oak Glen Road. The name means “quemaron”, or ‘they burned it’. Santos noted that it was associated with human shamans that turned into bears, and that the mountain area was considered excellent for hunting deer and gathering acorns. A satellite settlement to the main clan village at Akavat was located on this mountain (Harrington 1986:667).

3) Ahįįinimat:

On the west margin of Water Canyon and north of Wildwood Canyon was a hill or mountain that was called Ahįįinimat. The name was derived from the
Serrano word for eagle, and thus may have a supernatural association (Harrington 1986:667).

4) Pá’uv’at (spring):

In Wildwood Canyon itself, at the westerly foot of the steep grade portion of the Wildwood Canyon Road, Santos Manuel identified a spring called Pá’uv’at. The name was said to mean “full of water” (Harrington 1986:664, 667).

5) Pá’uv’at (hill):

The hill or mountain ridge to the south of the spring and to the south of the ascending grade of Wildwood Canyon Road was also referred to as Pá’uv’at. This hill was noted as extending eastward to near the intersection of Wildwood Canyon Road and the road that ascended the Little San Gorgonio Creek canyon in the direction of Oak Glen (Harrington 1986:667).

6) Pátskiveat:

An area containing two hills to the east of the Little San Gorgonio Creek canyon was identified by Manuel as Pátskiveat. He elsewhere stated that there was much pinyon pine there (Bean et al. 1981:168, Harrington 1986:667,668).

7) Máipaveat:

Further up Little San Gorgonio Creek, just to the east of the head of that canyon, was another native settlement called Máipaveat. The name was derived from an unidentified plant called Máit (Harrington 1986:667).

8) Aka’va’t:

Perhaps a mile or a mile and a half down-canyon below the intersection of Wildwood Canyon Road and the road that ascended the Little San Gorgonio Creek canyon, at the mouth of the canyon, was the location of the village of Aka’va’t, the headquarters village for the Pavi’kajam clan. Manuel recalled that a cemetery was located at that village site (Harrington 1986:668).

9) Pihátipapa’t:

A place formerly associated with the Pass Cahuilla- Peatopa- was said by Manuel to have been occupied by the Pavi’kajam. It is likely that the
Pavi'kajam, before mission times, had intermarried with the Pass Cahuilla from this area (Bean et al. 1981:224).

10) Kiwana’t [Kiwuña’t]:

Located in a canyon downslope from PátsKiveat and east or northeast of Aka’va’t but to the west of Banning Canyon- apparently the lower end of Cherry Canyon (Bean et al. 1981:28, Harrington 1986:670).

11) Hiklihaveat: .

Apparently located somewhere in the direction of Banning from Aka’va’t Bean et al. 1981:28).

The layout of the clan territory of the Pavi’kajam on the landscape reflects several common Serrano cultural features in their exploitation of the environment. The frequent practice of locating winter village sites at lower altitudes sites at the bottom end of steep mountain canyons is seen here. This had the advantage of providing access to mountain resources at the same time that food resources found down beyond the base of the canyon could be exploited. In this case, in San Gorgonio Pass, before the era of European stock raising, native grasses with food value were abundant, along with other food resources. The location of the principal winter village site adjacent to the corridor of communication to the Desert Cahuilla and the Colorado River that the Pass represented was also important. It is likely that the Pavi’kajam intermarried with the adjacent Pass Cahuilla, and engaged in exchange of desert products from the southeast with them. The population of the entire Pavi’kajam clan area might be estimated at 80-100 people or more.

The upland portions of the Pavi’kajam territory included Wildwood Canyon, Little San Gorgonio Creek canyon and Oak Glen, the Húhu’javat mountain area, and areas to the east of Little San Gorgonio Creek. Manuel indicated that specific localities within these areas produced abundant acorns and pinyon pine nuts, and there were good areas for deer hunting and the exploitation of jackrabbits. In addition, both springs and streamflow from the upland zone provided the inhabitants of this clan area with reliable sources of water. The Húhu’javat mountain area contained a settlement that was seasonally focused on acorn exploitation. Máipaveat, east of Oak Glen, was located in a prime pinyon exploitation area. It is worthy of note that Manuel indicated that the high mountain ridge, Cedar Mountain, located uphill behind Oak Glen, called Apihanat, did not form part of the territory of the Pavi’kajam. It is presumed that
trails crossing the westerly or easterly shoulder of this ridge provided the Pavi’kajam with travel access to the Mill Creek drainage, and via Angeles Oaks and the Santa Ana River drainage, to the highest sections of the San Bernardino range.

Summary

This document has provided preliminary results of ethnographic research on the Wildwood Canyon region. Each of the research data topics discussed herein will be further pursued and refined. Particularly important will be further investigation of local landscapes and environments and their relationship to both documentary and archaeological evidence of human activities in and near the Wildwood Canyon area. This will include a special focus on further identifying spring sites in the area, as well as evidence of their native use.

Figure 2: Harrington Sketch Map of Wildwood Canyon and Upper San Gorgonio Creek Regions (Harrington 1986:667).
Figure 3: Harrington Sketch Map of Location of Pá’uva’t Spring on Wildwood Canyon Road Near Turnoff of Road Entering Water Canyon (Harrington 1986:664).

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The Environment and the Religious Significance of Native Cultural Landscapes in Wildwood Canyon and the Clan Territory of the Pavi’kajam

Environment and Native Cultural Landscapes

Areas traditionally occupied by Native American tribal groups are recognized today as containing both traditional cultural properties and cultural landscapes. Individual places that were and are of cultural significance to Native American communities are often referred to under federal historic preservation guidelines as "traditional cultural properties", which may be found eligible for listing in the National Register of Historic Places (Parker and King 1998). Native American places and archaeological sites may also be eligible for nomination to the National Register under the criteria of either their historical significance or their potential to yield cultural, historical, or archaeological information. Within the definition of native places are included both localities that were of traditional religious significance to Native Americans and what are called "traditional use areas". The latter term is applied to areas where native people carried out important traditional gathering or procurement activities, and where the locations of these activities were recalled in native oral history.

Where a number of native places and areas are documented for a particular region, these places are referred to as conforming a cultural landscape. As defined by the Advisory Council on Historic Preservation (2016a, 2016b) and the National Park Service (Page 2009), Native American cultural landscapes consist of both physical manifestations of the native use of their local habitat- the remains of habitation sites, trails, quarries, rock art sites, or hunting camps, for example- and of places and areas that were and are culturally significant to these native inhabitants and their descendants. Such places of cultural significance were often named. Individual places and areas of cultural significance fit in to a wider “landscape” or spatial-geographical panorama that had distinctive cultural meaning for native people. This meaning was in part religious and supernatural. The Euro-American or “Western” view of the environments and landscapes that were encountered during westward expansion was that they were a natural wilderness to be exploited, an economic resource, not something spiritually significant. For Native Americans, their home areas had a completely different cultural significance, bound up with their Native American religion. They believed that what was for the Euro-American settler a natural landscape was, in reality, a spiritual world filled with supernatural places and powers and beings. This included the idea that what to the Euro-Americans were inanimate features of the landscape- rocks, springs, caves, trees, mountains- were in fact endowed with spiritual power and even, in fact, associated with animate beings. Native American elders decried what they saw as the stupidity of the block-headed
Euro-American intruders who could not see that the natural world around them was supernaturally endowed.

The culturally significant Native American places or areas may have been recorded in historical documents—maps; diaries, newspaper accounts, official reports, etc.—or in information collected from native people by anthropologists or other researchers, or otherwise provided by native people in the past or at present. Under current federal and California environmental law, the cultural significance of specific Native American places and wider cultural landscapes for both Native Americans and other members of the public is taken into account in land use planning. The Wildwood Canyon region provides an example of a Native American cultural landscape.

Environmental Features of the Wildwood Canyon Region

The Wildwood Canyon region includes a mountain mass of granitoid composition surrounding Pisgah Peak, occupying approximately 7 mi.², bounded on the south and east by Wildwood Canyon, and on the west by Water Canyon (Matti et al. 2003). To the west of Water Canyon another mountain ridge of similar geological composition extends for several miles from north to south. Another hill and ridge of schist composition extends along the southern margin of Wildwood Canyon. The north side of the Pisgah Mountain area is located on the southern margin of Potato Canyon (Oak Glen), through which runs a branch of the San Andreas Fault. Élevation of the Wildwood Canyon region ranges from approximately 3,000 feet at the junction of Water Canyon and Wildwood Canyon to a height of 5,488 ft. at Pisgah Peak. Rainfall averages 19 in. per year in Yucaipa to the west, and 22 in. in Oak Glen. Chaparral and interior live oak-sycamore woodland plant communities, the former found on open hillsides and the latter in canyons and on north facing slopes, respectively, are important biotic components of the area.

Other adjacent areas found within the clan territory of the Pavi’kajam clan included the drainage of Little San Gorgonio Creek just to the east of Wildwood Canyon, and ridges and canyons further to the east. The upper end of Little San Gorgonio Creek in the vicinity of Oak Glen and Pine Bench also included habitation areas that formed part of the clan territory of the Pavi’kajam. The main settlement of the clan was located downstream on Little San Gorgonio Creek about 1.5 miles south of the southeast corner of Wildwood Canyon.

The Wildwood Canyon region has been subject to the effects of heavy storm runoff, both with winter storms and summer thunderstorms. This precipitation has been triggered by storm cells from the south and southwest approaching the ridge area upslope from Pisgah Peak and Oak Glen, and Mt. San Gorgonio further upslope to the northeast. The mountain slopes on the north side of San Gorgonio Pass have
experienced heavier rainfall and alluvial fan development than on the south side of the pass (Vaughan 1922:343). The relatively steep hillside terrain within the Wildwood Canyon region has created conditions for relatively high runoff velocity. In the Wildwood Canyon the long-term effect of storm events has been the down cutting of canyons in the alluvial terraces and the deposition of alluvial gravels widely across the canyon bottoms. Relatively short side canyons feeding into Water Canyon, for example, feature deep and vertical-walled erosional down cutting. Wildwood Canyon itself has also been deeply down cut along most of its upper 3.5 miles, with locations along it with a ratio of 180 ft. depth and 450 ft. width. It is not clear that this down cutting can be solely attributed to the increased runoff impacts of modern ranching activities- grazing- in the area, in part because of the recency of ranching in the area and the great areal extent of intact chaparral. The presence of mature interior live oak woodland in the canyon bottoms suggests that the down cutting is not recent. It is possible, however, that the effects of wildfire, both in prehistoric and historic times, in promoting flooding may have contributed to this down-cutting.

An important feature of Water Canyon and its vicinity is the presence of springs fed by subsurface water flow from upslope areas. These include Houghton Spring, located on the floor of Water Canyon just to the north of the roadway leading east to the Hi-Up property, and a second spring apparently located nearby. This was shown on an 1884 General Land Office plat map as located on the west side of the canyon approximately 550 feet north of the south boundary of section 4, T1S,R2W, and approximately 150 feet east of the west boundary of the same section (General Land Office 1884). Just to the southeast of the confluence of Water Canyon and Wildwood Canyon was another spring that was identified by Manuel Santos as Pa'úva't Spring. The name, according to him, meant “full of water” (Harrington 1986:Fr. 101: 667). The name of the spring was applied to the entire ridge that lies to the south of it. As mapped by Harrington in 1918, the spring was located near a sycamore tree on the south side of the Wildwood Canyon Creek. Its location was just to the west of where the 1918 roadway crossed the creek from northwest to southeast and ascended the ridge. This spring also appears to have been recorded on the 1884 General Land Office plat referred to above. In addition, other springs are known to have been located at the head of a canyon located close to the southeast of the Hi-Up ranchhouse, and also at the former Hastings-Huebner farmstead in Lot 10 further to the northeast on the east side of Water Canyon (Earle 2007:19).

The presence of these springs would have been an important factor in native settlement of the Wildwood Canyon region. In addition, the indications of storm-related flooding at least hints that archaeological traces of habitation areas are located on benches or terraces above the canyon floor. One such area was identified on an elevated terrace to the east of lower Water Canyon. It is not clear, however, whether periodic flooding of the canyon floors may have obscured traces of native
campsites located there. Within Water Canyon, geologic mapping and archaeological survey have indicated extremely recent alluvial fan gravel deposits across the canyon floor suggesting periodic flooding (Matti et al. 2003).

Abundance of rainfall in the Wildwood Canyon region also led to the abundance of three important food resources mentioned by Serrano elder Manuel Santos for this area - acorns, jackrabbits, and deer (Harrington 1986:Rl. 101:180, 232, 666-667). The availability of spring water sources in the same region permitted the Serrano to occupy the same locality with habitation sites and to take advantage of these and other resources. The key to these resources was the presence of interior live oak woodland on the floor of the canyons and on north facing slopes of hillsides in the Pisgah Peak Mountain region. Not only did this provide an abundance of acorns for native people in the area, but it provided habitat and browse for game, including both deer and jackrabbits.

The Serrano Cultural Landscape: Religious Beliefs and Sacred Places, and Supernatural Associations of the Wildwood Canyon Region

The Native Cultural Landscape and Sacred Songs

Native groups in southern California held religious and social gatherings that featured both traditional dances and also songs that frequently had a religious content. Religious songs were also sung by shamans, who used them in their curing and other supernatural activities. Individual clan groups had a special officer permanently designated as the ceremonial singer to lead songs during religious ceremonies. He was called the Tcaka (Benedict 1924:375, Strong 1929:21). The songs were the 'scripture', so to speak, of Native American groups in southern California. They provided sacred accounts of the creation of the world, of the first people, and of the supernatural powers that came to inhabit and govern the world. These songs mapped out the supernaturally endowed landscapes that people lived in, and provided a sacred charter for proper human behavior. Francisco Patencio, a net (chief) of a group belonging to the Pass Cahuilla, who inter-married with the Pavi'kajam clan, explained about these songs:

When anyone did something that was not in the law, the Indian people would say that “the song is against them”. Their own people would not recognize them if the songs were against them. That is our law. ... When I speak of the songs of the people being against them, it means that the songs were the laws of the people. The songs were remembered. They could not forget, because they were always singing at the ceremonial houses (Patencio 1943:xii).
Sacred songs sung during community rituals often referred to supernatural 'culture heroes' that traversed the southern California region via magical travel. These supernaturals were associated with, or even bestowed names on, specific landmarks and places. The traditional sacred songs could take many hours to sing. Chief Patencio, for example, referred to a culture hero creating and naming places:

_Evon ga net_ left Gilman's Hot Springs to find more places for his people. He went to what is now known as San Jacinto mountain. He came to the canyons, the rocks, the trees, the springs, and he gave them all names. He lined the country in sections for his tribes to come in more generations, and he made the signs where certain tribes of his people were to come. The signs he made so that the people who came after would see and know.

At the top of the mountain he formed a spring which he named _To quo a_, meaning a mountain lion. Then he went near Tahquitz Peak to a large rock which is standing there, and he called that _Pul lo cla_, which means the top of the ridge. _Evon ga net_ gave this place much power. From there the thunder comes and the earthquakes, much sound. He did this for his people, that they should have good hunting. If the hunter finds the tracks of game and nothing else, then he sings the hunting prayer song, calling upon the name of _Evon ga net_ to help him, and then in his dreams he is shown the way to go to find his game (Patencio 1943:52).

Manuel Santos mentioned a number of similar songs still sung by Serrano elders, including himself, in the early twentieth century. Such songs were important features of the week-long mourning ceremony, the most important group ritual fiesta, held to commemorate the community's dead. These sacred songs are still sung today in many southern California native communities, and are a key element of their contemporary cultural identity.

The sacred songs describing and calling out the landscape features of native Southern California express the native belief that these features were supernaturally endowed. These included hills and mountains, springs, meadows, lakes, rivers and streams, caves, and rock formations. In some cases, particular locations were the sites where significant supernatural events took place or where supernatural beings were encountered.

In regard to the territory of the Páve'kajam and elsewhere in Serrano territory, Manuel Santos told Harrington about the supernatural assignment of names. He said
that the Ata'aveatam clan ancestors had been the original mythic settlers of Serrano country, coming from the east. He said it was they who had bestowed all the names of places and had directed the other Serrano clans, as they appeared, as to where to settle (Harrington 1986:Rl. 101:Fr. 413).

Mountains

Gabrielino elder Juan de los Santos Juncos stated the following to John Harrington:

And the earth and especially the hills and las sierras [the mountains] are Sowo‘ic [sacred and awesome]... and all the songs have to mentioned these (Harrington 1986:Rl. 105:396).

De Los Santos Juncos also noted that that the equivalent Serrano concept for the sacredness or holiness of the mountains and other places and things was called Páahavit. This term in Serrano applied to supernaturally powerful things- including spirit helpers and other spirit beings (Anderton 1988:452). Mountains were frequently named in the travels of supernatural beings- including deer and mountain sheep- that were narrated in the sacred songs. Santos Manuel mentioned various mountains that were mentioned and sung about in Serrano sacred songs (Bean et al. 1981:9).

Springs

The springs in Serrano territory were believed to have been created by founder deity coming from the east across the desert and using a magical staff to perforate the surface of the earth in order to create individual springs as he traveled toward westward toward the eventual homeland of the mountain Serrano. In a previous section, reference was made to spring creation and spring naming by the culture hero Evon Ga Net.

Springs were associated with important events in the creation of the world, and seen as portals to the underworld. Arrowhead Hot Spring, near San Bernardino, was believed to have been the place where one of the two supernatural brothers who created humans at the beginning of the world, Pakrokaits, traveled to the underworld after being defeated by his brother Kirikaits (Bean et al. 1981:30-31). Later, Kirikaits was in turn killed by unhappy people-animals that he had helped create, and was believed to have been cremated at a sacred spring in Big Bear Valley.

Native people of Southern California and the eastern California desert believed that springs were sacred places. They were often associated with water spirits of various kinds. Thus, there were stories recalled by native elders about springs that were
haunted by these water spirits that could punish individuals who are believed to have committed antisocial actions- broken the laws of the songs.

Johnston (1962:46), writing about the Gabriélino Tongva, mentioned John Harrington having been told about a class of beings that lived in springs and under the earth, and noted the parallel to the Serrano belief in water spirits. The term Paavavut was used to designate a spring spirit-being. The supernatural occupants of springs were described as sometimes making crying sounds. Santos Manuel mentioned one case where a quantity of sugar carrizo grass to be used for making arrows was removed from around a spring occupied by a crying spirit. Three native shamanes positioned themselves around the edge of the spring and recited prayers that allowed them to remove the sugar carrizo without being harmed by the spirit (Harrington 1986:R1. 101:177).

Chief Patencio described animal and child-form spirits that lived at the spring at Palm Springs, and how people there prayed to be allowed to use the spring:

If the people wanted to do anything to the water- to clean the spring or use the water- they gave a food offering in the fiesta house and prayed to the water in the spring. Then they could do whatever they wished, without any harm happening to them (Patencio 1943:92).

It was also widely believed that springs were interconnected. Patencio mentions that the spring at Palm Springs was believed to be connected to all other hot water springs by subterranean passage-ways, so that material items from those distant places would appear at the spring (Patencio 1943:95).

The Chemehuevi, Mojave Desert people who also intermarried with the Serrano, believed that supernatural beings that lived in springs could travel underground from one spring to another by a sort of subterranean highway (Fowler 2002). It was also believed that shamans could take advantage of this particular type for means of travel to move from one location to another.

Springs were of special importance because they could potentially provide reliable sources of water during the warm summer months of the year when other sources of water were unreliable. Because of the nature of the Serrano food system large quantities of water were important for the maintenance of the Serrano subsistence system. The processing of acorns required relatively abundant amounts of water in order to leach tannic acid from the ground acorn meal. This meant that relatively substantial amounts of water would be needed for a camp of 30-50 people. This means that reliable springs were very important and were a principal determinant of the location of both temporary seasonal camps and permanent winter villages.
Trails

Trails were also an important element of the native cultural landscape. Native trails, like later pioneer horse trails that often followed them, tended to follow more direct routes than twentieth century hiking trails. Native hunters were able to travel quickly on trails in rough terrain. In the San Bernardino Mountains region, travel between the southerly base of the mountains and the high country could be completed in a single morning, as Santos Manuel explained to Harrington (1986:Rl. 101:202).

Foot/horse trails are shown on maps and land surveys of the later nineteenth century and the beginning of the twentieth century in the Wildwood Canyon region. These sources suggest that a trail ascended Water Canyon, and then crossed the ridge to the north to connect with the west end of Potato Canyon to the north. This trail connection would have permitted native people from the Pavi’kajam clan area to reach the Mill Creek drainage and then the upper Santa Ana River canyon en route to the high country around Big Bear. The most direct route via Potato Canyon ascended Wilson Creek to cross Yucaipa Ridge to Mill Creek. Another trail probably ascended the floor of Wildwood Canyon, and a portion of this trail in the upper canyon is shown on an 1897 General Land Office plat map (General Land Office 1897).

Trails served to convey travelers from one place to another- Pass Cahuilla chief Francisco Patencio referred to such trails as ‘friendship’ trails, tying people in different communities together. Hunting trails, on the other hand, might veer ‘off the beaten track’ and were also sometimes animal track-ways. This was important where hunters selected locations where they could wait in ambush.

Native trails often featured shrines that were located at passes or other locations on the trail, where a stone or other offering might be left. These offerings formed conical mounds of stones. The shrine mounds were sometimes located next to other features such as boulders, rock outcrops, or rock art panels. Such gifts to the supernatural were believed to give the hunter good fortune in the hunt. For other travelers, relief from the fatigue of the journey and protection from possible hazards were believed provided by the offerings. Travelers might encounter particularly troublesome grizzly bears, for example, and Manuel Santos recounted the killing of a particular bear in the San Bernardino Mountains that was undertaken in order to make a major trail safer for travelers.

The religious and cultural importance of trails and trail shrines was commented on by Francisco Patencio, a Pass Cahuilla chief at Palm Springs:
All the Indians did their part to keep the trails clear. The trails were sacred to the Indians (Patencio 1943:70). Then there is a small rock on the trail below in the canyon, just before coming to the point, where offerings were placed. This rock is by the old deep-worn Indian trail going from Palm Springs to Chino Canyon. Many parts of this trail are still there. This is the hunters' rock. The hunters put their offerings there, and then they never get tired or bitten by animals or snakes, or frightened. It brings what the white people call “good luck.”

All trails were kept clear by the Indians. When the hunters were having trouble about things, they gathered up rocks from the trail, and put them in piles on the side. This pleased the spirits, and caused goodwill. This rock is a goodwill, a friendship rock, and was placed there for the people by Ca wis com ca (Patencio 1943:73)

Gough (2003:2) describes similar shrines in The Pipes, a canyon on the east slopes of the San Bernardino Mountains that was at one point home to the Ate'aveatam clan of the Serrano. Santos Manuel also described a trail shrine located in the San Bernardino Mountains north of Lake Arrowhead, apparently in the vicinity of Stove Flats. Leaving an offering at the shrine was believed to provide supernatural alleviation to the weary and jaded traveler:

It is not a single stone at all, but is a pile consisting of "piedras, ramas y palos" [rocks, branches and sticks] as tall as a man. ... When one is going along the trail there either way he says: Cura me, cura me [make me feel better]. ... He picks up piedra [stone], rama [branch] and piece of palo [stick] or piece of rama [branch] handy) and lays it on the pile, lays them on the pile, saying... Cura me, cura me... Estoy cansado [I'm tired], soy viejo [I'm old], ya no ando [I can't walk] (Bean et al. 1981:267-268, Harrington 1986:Rl. 101:398).

Trail shrines have been observed and archaeologically recorded on many native trails in Southern California. In addition, native people have worked in recent years to restore native trail shrines damaged by natural processes or intentional vandalism.

Other Religiously Significant Features of the Wildwood Region

Were-Bears and Huhuj'ava't Mountain
When Santos Manuel and John Harrington visited Wildwood Canyon in 1918, Manuel recalled the name of Huhu'java't Mountain, the mountain mass surrounding Pisgah Peak and bounded by Water Canyon on the west and Wildwood Canyon on the south and southeast. He also remembered that it was an area where were-bears, grizzly bears that were humans in animal form, were found. These were-bears had shamanic powers, and were greatly feared. He noted that native people living in the region were concerned about encountering these supernaturally powerful were-bears.

Manuel on another occasion recounted the following to Harrington, describing the were-bears in the San Bernardino Mountains:

Once two men who had been hunting somewhere were each bringing a deer on his back down aketsuk Canyon toward meksuk, these men were punínqat (a Kaiyuyam) and kwiánat (a Paaveatam). At a certain point in the canyon they saw three bears. Punínqat told his companions that they were people as soon as he saw them (Harrington 1986:RI. 101:209).

Mentioning another man he knew, Muhjaqaet, Manuel added:

Those were really people - they turned into bears hoping to kill Muhjaqaet, but he was always smarter than they were. That was the way in the old times- whenever a man prospered they (the bears) wished to kill him. .... Once Muhjaqaet was at tere'nik and saw a bear whom he recognized as a person. He told the bear that he knew who he was as he had his arrow in drawn bow ready to release it, and the bear being afraid, straightaway turned into a man and thus saved himself from being killed (Harrington 1986:RI. 101:209).

He also mentioned that human shamans could assume the form of at least one other kind of animal, the wildcat. Francisco Patencio (1943:69) also mentioned men who could turn into bears. Among southern California native groups living closer to the Pacific Coast, the young native men who worked as vaqueros on ranches during Mission times (early nineteenth century) were sometimes afraid to kill bears out of fear that they might turn out to be their own relatives.

The fact that Huhu'java't Mountain was described by Santos as a haunt of the were-bears is very noteworthy, since he does not seem to have described to Harrington other specific localities in Serrano territory where native people believed that the were-bears were likely to appear in numbers.

The Eagle Place - Áheñemenat

The mountain ridge bounding Water Canyon on the west was recalled by Santos Manuel as being called Áheñemenat (Harrington 1986:RI. 101:232). He noted that
the name was derived from the Serrano term for Eagle—Áhent. This name is significant because eagles were extremely important religious power symbols for the Serrano, and figured in various of their religious ceremonies. Santos Manuel mentioned two different kinds of eagles, Áhent and Pa'ahent, the latter translatable as ‘water eagle’, and recalled by him as a white headed eagle that would dive for fish in the Big Bear region (Bean et al. 1981:188-189; Harrington 1986:Rl. 101:371,391). These appear to correspond to the Golden Eagle (Aquila chrysaetos) and the Bald Eagle (Haliaeetus leucocephalus) (California Department of Fish and Wildlife 2017a, 2017b). The former is found more frequently in lower altitude wildlands in California, while the Bald Eagle is associated with montane forests, lakes, and streams.

Different Serrano creation stories recount the arrival from the north of supernatural founding ancestor chiefs, accompanied by a supernatural white eagle with 13 tail feathers and members of the founding clan—either the Marengayam or the Ate’aveatam (Gifford 1918:183-184). Santos Manuel claimed that the Ate’aveatam clan had this white eagle, and that their chief carried this eagle under his arm. He also said that a population of these supernatural white eagles continue to live in the San Bernardino mountains (Harrington 1986:Rl. 101:22,137).

The eagle was thus the representation of a supernatural being, Eagle, that had accompanied the founding chief into the area from the north. This belief was widespread among native groups in southern California (McCawley 1996:92-93). Eagle thus became associated with the office of chief. Both live young eagles and eagle feathers were given as offerings to chiefs (Harrington 1986:Rl. 101:209).

In ancient times an elaborate eagle sacrifice ceremony was held by each local group or clan. This represented the communication of the Eagle spirit with the afterworld, and also the continuity of the office of chief (net) that Eagle was associated with, and the continuity as well of the local group led by the chief. In more recent times, among the Serrano this ceremony was incorporated into the morning ceremony. Feathers from eagles were used to adorn the images created to represent the deceased during the clan mourning ceremony, and an Eagle Dance was also performed (Benedict 1924:377). The eagle sacrifice ceremony was said to have been first held in the aftermath of the death and cremation of the culture hero Kukitat, known elsewhere in native southern California as Wiyot or Wewayct (McCawley 1996:93, 165-166).

Eagle feathers were among the most sacred components of the muurtc, the clan sacred bundle. The bundle was made from matting that contained sacred objects, including eagle feathers, and it embodied the spiritual essence and identity of the entire clan.

The Native Cultural Landscape, Traditional Use Areas, and Native Ritual

Important elements of native cultural landscapes, as we have mentioned previously, are traditional use areas. These are areas within a cultural landscape that are known to have been traditionally used by native groups to acquire important resources. These might include localities that provided plant materials for making baskets,
deposits that provided pigments for body paint, meadows that might provide corns like Calochortus, or sites where fledgling eagles might be captured. Such places that were remembered in the oral history and recollections of members of native groups as important traditional use areas were often recorded by anthropological researchers. Native people in the past and today have also provided their own testimony about traditional use areas important to their communities, some of which may still be used by tribal members (Earle 2015).

The Wildwood Canyon region contained traditional use areas for rabbit and deer hunting and for acorn harvesting. Santos Manuel described rabbit hunting in the Wildwood Canyon area that took place when he was a child. This he associated with Hūhu'javat mountain [Pisgah Peak mountain] (Harrington 1986:Rl. 101:180). Since in this case at least some of the hunters were based at the Ju'k'aj'pa't settlement in Yucaipa Valley to the west of Áhe'ñemenat mountain, the hunt may have been carried out on the west or Water Canyon side of Hūhu'javat mountain. In the Wildwood Canyon region jackrabbits (Lepus californicus), brush cottontail rabbits (Sylvilagus bachmani), and desert cottontail rabbits (Sylvilagus Audubonii) are found, but Serrano accounts of rabbit hunting generally tend to emphasize jackrabbits. Hunting was frequently carried out with nets of plant fiber that when assembled and laid out from individual sections could create a barrier as much as 100 yards wide. Jackrabbits trapped against such barrier nets could be killed with clubs, but were also hunted with throwing sticks (tukt) resembling Australian boomerangs (Harrington 1986:Rl. 101:24). In addition, hunters who were experts with the bow could hunt them with arrows. This kind of bow hunting of jackrabbits was described by Manuel Santos for the hunting described that took place in Water Canyon. In addition, the burning of brush could also be used to drive rabbits into the open during a hunt, as was done in Water Canyon.

Rabbit hunts that involved an entire community often provided the setting for a nighttime feast that involved dancing and the singing of traditional sacred songs. The hunting of rabbits was also sometimes intended as a means of amassing what was called "witc-at", a ceremonial fund of food presented to the chief presiding over the hunt, that would be later used to feed attendees at an upcoming ceremonial event (Benedict 1924:373-374). Manuel Santos mentioned that there were also ritual actions, sometimes involving the carving or modifying of rock surfaces, that groups of people could perform during a rabbit hunting gathering, in order to improve the prospects of a successful hunt (Harrington 1986:Rl. 101:176).

Mule deer (Odocoileus hemionus) hunting was also carried out in the Wildwood Canyon area. Santos Manuel noted that these deer were especially abundant in the region around the Hūhu'javat mountain [Pisgah Peak mountain] (Harrington 1986:Rl. 101:667). They would consume both grasses and forbs on the one hand and browse
on the other, including chaparral plants and interior Live Oak foliage (Innes 2013). Acorns are also a key food resource, so the deer were found in the areas of oak woodland- canyon bottoms and north facing slopes- in the Wildwood Canyon region. Deer were hunted with the bow and arrow. As Santos Manuel described, deer hunters frequently wore antler headdresses tied to the head as a hunting disguise. Community hunts could include both rabbit hunting and deer hunting, with accompanying dancing and songs. In addition, it was reported by Benedict (1924:379) that when a deer hunt was successful, an all-night ‘deer ceremony’ was held, with singing of sacred songs and dancing.

The interior live oak woodland areas in the canyon bottoms and north facing slopes were also exploited for acorns. This was the most important plant food staple for native people of the region. Santos Manuel noted that the area of the Pisgah Peak mountain and Wildwood Canyon was an important acorn collecting area for native people, thus documenting its importance as a traditional use area (Harrington 1986:RI. 101:665-666). Native settlement occurred in this area, including the upper part of the Wildwood Canyon drainage. In addition, his recollection of the named native spring of pâ‘uva‘t in Wildwood Canyon just upstream from the junction of Water Canyon and Wildwood Canyon suggest there was settlement in this area as well. Native occupation of the region would have included the period of acorn harvest in October and early November. Santos Manuel also stated that during periods of heavy winter rainfall in the Húhu‘javat mountain area, people residing there might move down to the clan headquarters village located about a mile and a half south of Wildwood Canyon in the Little San Gorgonio Creek drainage (Harrington 1986:Reel 101:667).

Acorns were first gathered in small quantities at the beginning of the harvest season in a first fruits ceremony. The gathered acorns were processed and turned into meal and ceremonially consumed by members of the local group- this sometimes took place in the harvest camp or settlement. Benedict (1924:374) mentions first-fruits thanksgiving, and Bean and Saubel (1972:125-126) describe a similar ceremony for the neighboring Pass Cahuilla. They note a prohibition against anyone gathering acorns before the first fruits ceremony, with the offender suffering sickness or death. Acorn harvests are also known to have been the occasion for inter-clan fiesta gatherings hosted by the clan group in whose territory acorns were being gathered (Earle 2004). Acorn groves were culturally and spiritually important places for the native groups that exploited them. Local lineages or family groups used specific groves and often left their own processing equipment at these groves. Manuel Santos also suggested that not only the landscape of pine trees found in the San Bernardino Mountains region, but also the landscape of oaks, were the supernaturally transfigured remains of what had been the first people who had mourned the death and cremation of the culture hero Kukitat (Harrington 1986:RI. 101:267)
Serrano settlements, whether temporary camps or more permanent habitation areas, were dependent on processing stored dried acorns on a regular basis, since this was the staple of the daily diet. This meant that it was desirable to have access to bedrock mortars near settlement locations, and necessary to have access to significant quantities of water that were needed to leach the tannic acid out of the prepared acorn meal.

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