# Verizon Wireless

#### **Indian Creek Wireless Facility**

6521 Green Valley Rd. Placerville, CA 95667



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## **RF Site Engineering**

**RF** Technical Site Justification:

This proposed search area was deemed necessary by Verizon's RF Engineers to meet the capacity demands of the rural residential properties West of Placerville proper. The sloping terrains in this area are mostly upward from the canyon basin like roadway (Green Valley Rd.) Much of the housing is up off the roadway. This creates the need for a site that is at levels similar to existing structures but also sees the roadway coverage needs. Siting options at higher locations make for difficult solutions as they are generally are upward and visible in the Skyline. A site within existing trees in the skyline was selected for this reason.

The existing system is overwhelmed by uses that are enhanced with 4G operational attributes. These require more capacity than simple phone usage with the additional abilities to make, document downloads, greater storage and higher data capacity use overall. The only way to overcome capacity loss is by placing a new facility to fulfill the weakened signal.



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#### **Tower structure selection** Note 2 conifers on the property a 6521 Green Valley Rd.



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### Various Conifers are a common skyline tree projection along Green Valley Road intermixed with Oaks



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### The proposed occasional Conifer is a common visual theme



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## Professional Engineering EME study results = < 1% at .75%

#### **Study Results**

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be  $0.0073 \text{ mW/cm}^2$ , which is 0.75% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of any nearby building is 0.57% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operation.

HAMMETT & EDISON, INC. CONSULTING ENGINEERS

E0G4

## Summary

- Verizon followed a proper due diligence process to establish their proposed facility. Our current candidate was selected after careful consideration of all potential collocation, existing structure and property opportunities for new site builds. Careful consideration was made to avoid a barren skyline structure.
- Verizon's site location is at substantial distances from any neighboring residence over 500'.
- Verizon's proposed site is well camouflaged and simulations prove it will blend well within a densely tree 'd backdrop and a common conifer growth in the skyline.
- Verizon's proposed site will provide a much needed community infrastructure that will enhance local use, and overall system reliability.
- The proposed Facility was certified by a professional EME engineer and it was determined that the site was compliant with findings that were below 1 % of the General public allowable exposure to EME.
- The decision to approve this project would comply with all County general requirements and meet the county standards outlined in ordinance sec. 130.14.210. relative to Wireless Communication Facilities.