



WIRELESS CONSULTANTS

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Geographic Service Area

AT&T Wireless has embarked upon a significant initiative to bring 4G wireless coverage to all of its wireless communications facilities across the nation. The proposed project at Lake Henshaw was approved by the County Planning Commission previously in 2014; however the Major Use Permit expired because the project lost funding and was not constructed in time. As part of its fixed wireless local loop (FWLL) service, AT&T has committed to provide broadband services to 13 million more rural homes and businesses across the nation through wireless connection rather than traditional copper/fiber. AT&T now has funding to proceed with the proposed project in at Lake Henshaw with renewed objective to not only provide the needed network coverage and capacity but now also to provide WLL technology. This technology provides home phone and high speed broadband Internet service through a link to the nearest cell tower. The FWLL technology means that AT&T can help provide quality phone service and high speed broadband coverage to areas that do not have the fiber infrastructure to provide these services. The attached RF Coverage Maps depict the existing coverage situation around the project site, with maps depicting coverage with and without the proposed facility to help illustrate why this site is needed to complete AT&T's network. These maps display a stark contrast in coverage, since existing conditions lack sufficient AT&T wireless coverage due to the inadequacy of the existing antennas, and with the significant topographical variations in the project area.

One critical caveat in reviewing the attached coverage plots is that coverage is only one aspect of the project. Carriers have two essential goals in network rollout: coverage and capacity. Coverage maps will only show the quality of signal over a distance. Will a cell phone have reception? How good is the signal? Are dropped calls likely? The answers to these questions are represented in a coverage map. Tantamount to coverage is the other wireless goal: capacity. Unless AT&T upgrades the equipment and the nearest cell tower, customers will suffer from slow and frustrating data coverage. Customers are now paying for 4G data coverage on their phones, and cell towers are increasingly "maxed out" with the bombardment of data usage at a given tower. Therefore, you may look at the attached coverage maps and think, "Huh! It's very green. Why do they need to fuss with this site if there's already good coverage?" That's only half of the battle.

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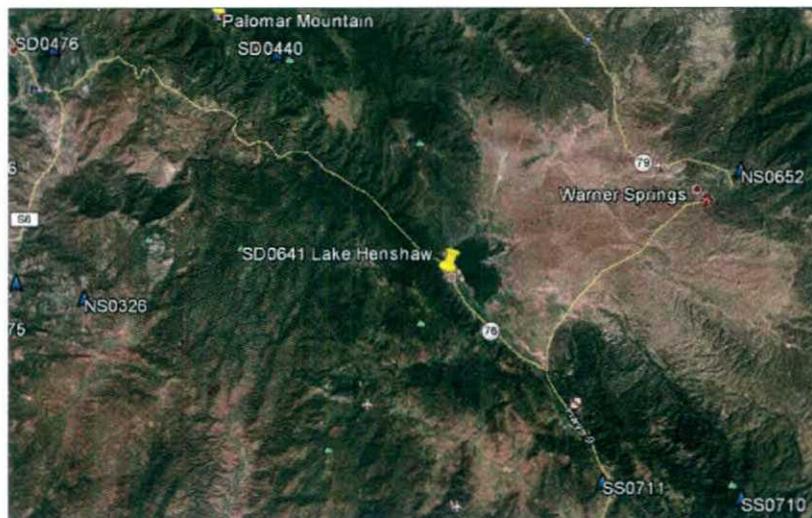
MUP16-009

The installation of this newer, faster network will greatly enhance personal, business and emergency communications for this area of rural San Diego County. Rural communities of the County, like the Lake Henshaw area, are especially prone to isolation. Communications are lost if phone lines are burned, and commuters face danger if there is an accident or car trouble along the highway. The communications that a facility like this provides are vital to public safety. It should be noted that *public health, safety and welfare* is a key finding for a Major Use Permit. Regarding the attached RF Coverage Maps, note the following color coding:

- Gray: No coverage
- Red: Little to no coverage (connection cannot be maintained)
- Yellow: Weak coverage (connection may not be able to be maintained)
- Teal: Moderate coverage (insecure connection)
- Green: Good coverage

What is not readily evident in the maps are the significant spans of rolling hills and winding roads that make the purveyance of wireless coverage exceedingly difficult. In rural and semi-rural communities such as these, the service area provided by any single wireless facility becomes smaller and smaller because the antennas are not able to “see” over and around hills, let alone provide the data capacity and GPS services that users need. When looking to build a new wireless facility within a given search ring in these areas, or upgrade an existing facility as old and untouched as the subject facility, AT&T of course seeks to gain as much height as possible in order to maximize coverage and capacity in the interests of its customers. For the subject facility located off Highway 76, having good, unobstructed visibility in all directions maximizes the service provided by this facility to the increased benefit of the community and reduces the need to construct additional facilities in order to meet the targeted coverage objective.

The proposed communications facility at 24639 Highway 76 is intended to service a gap in coverage on the Highway 76 corridor, which has a 7- to 8-mile stretch in any direction to another AT&T site(see map below). In addition to the distance apart creating a service gap, topographical variations, including valleys lower in elevation and winding roads, cause significant loss in coverage. These gaps, coupled with the capacity demands described above, make the installation of a new facility at the proposed location crucial to AT&T’s coverage needs. This site is needed to provide proper handoff between existing facilities along with excellent capacity.

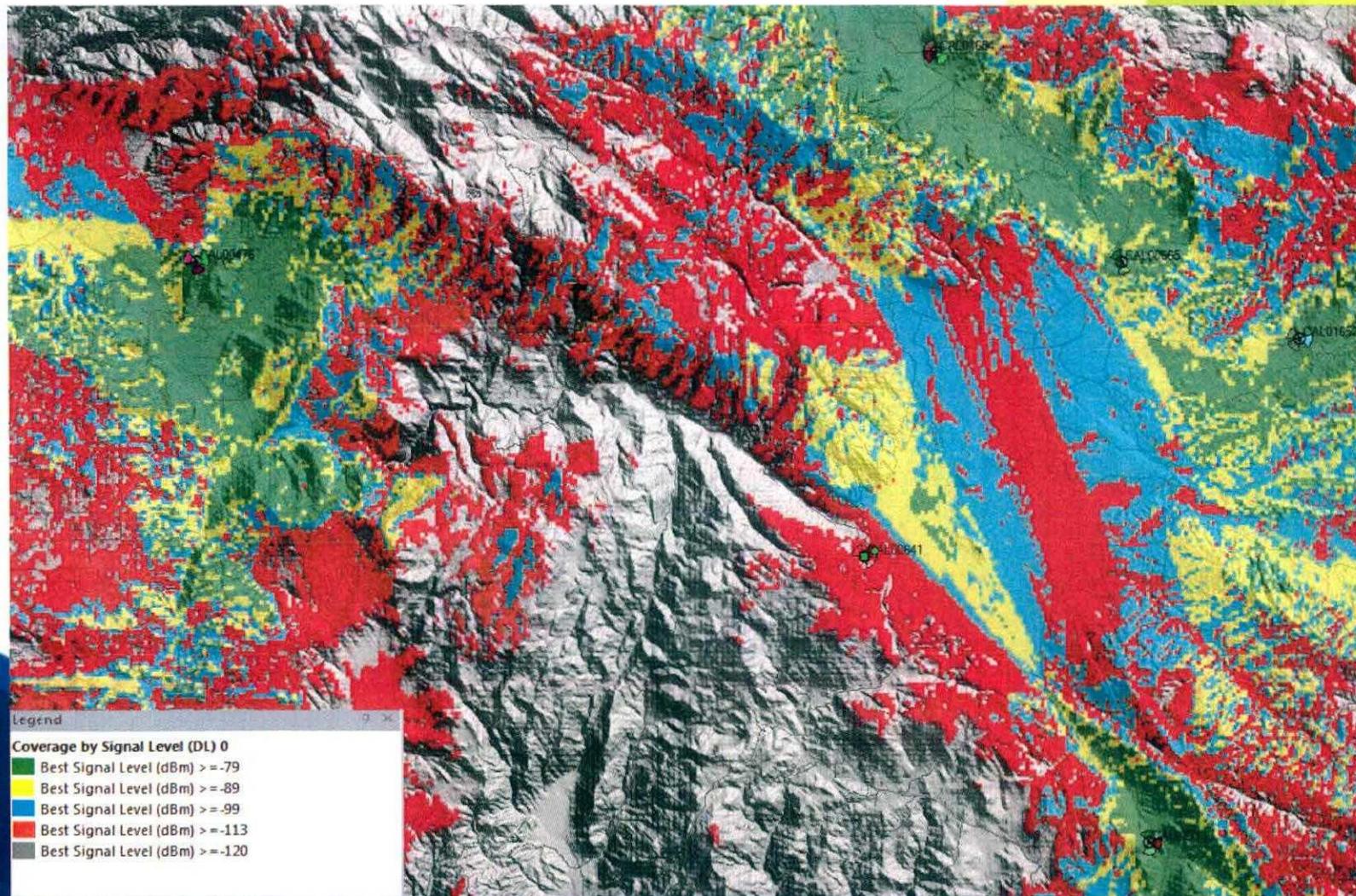


SD0641

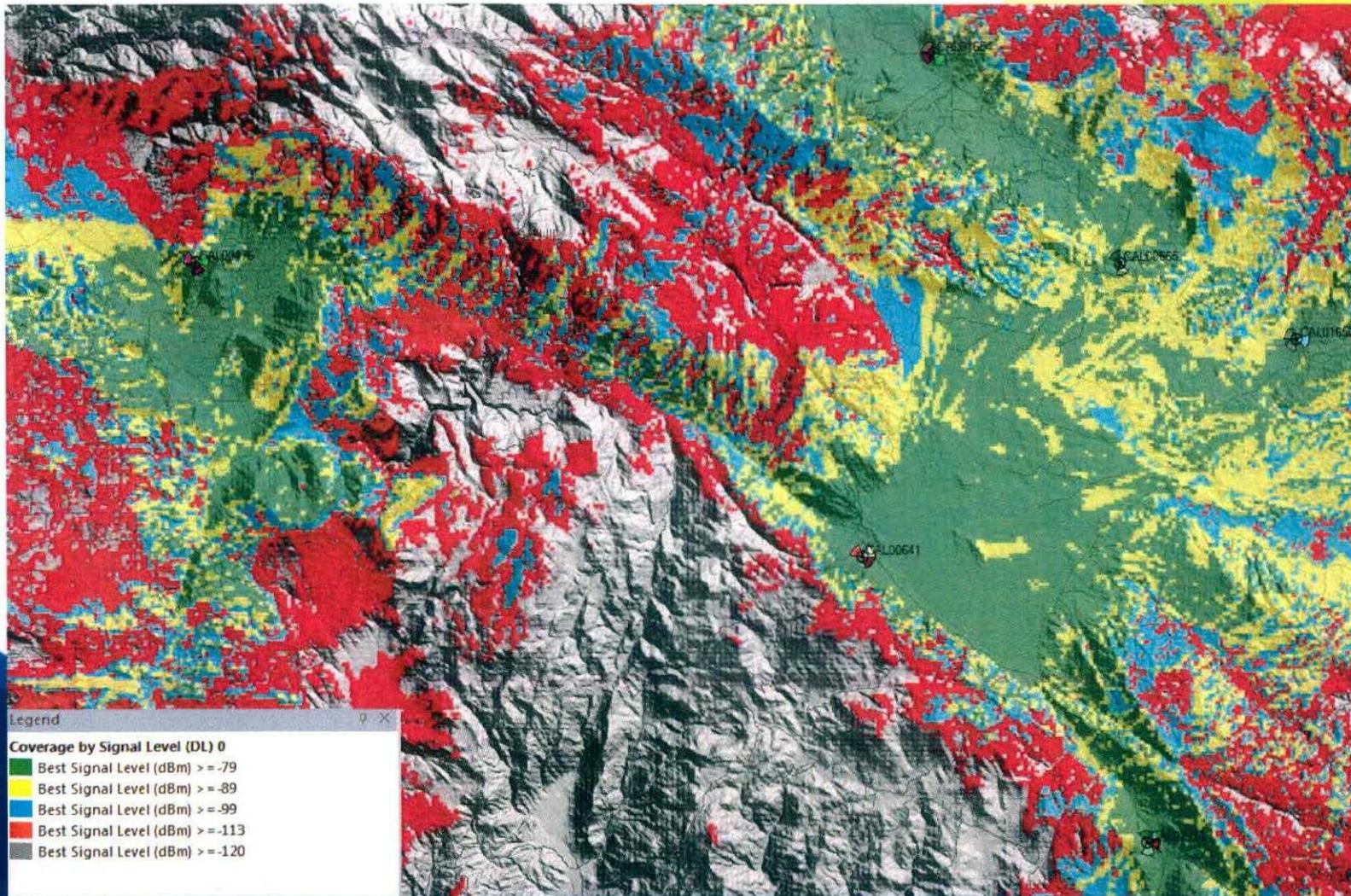
April 2016



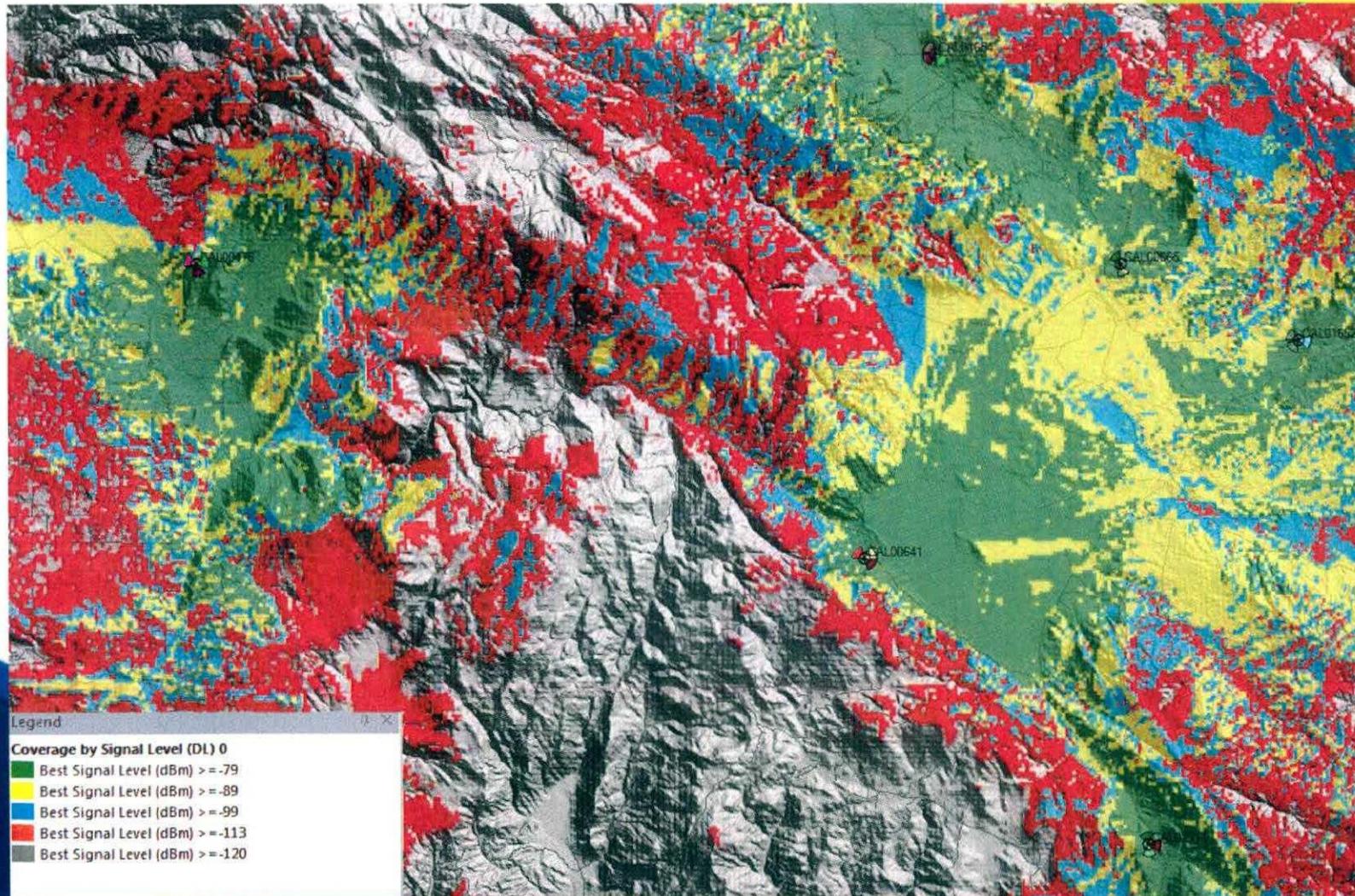
Coverage without SD0641



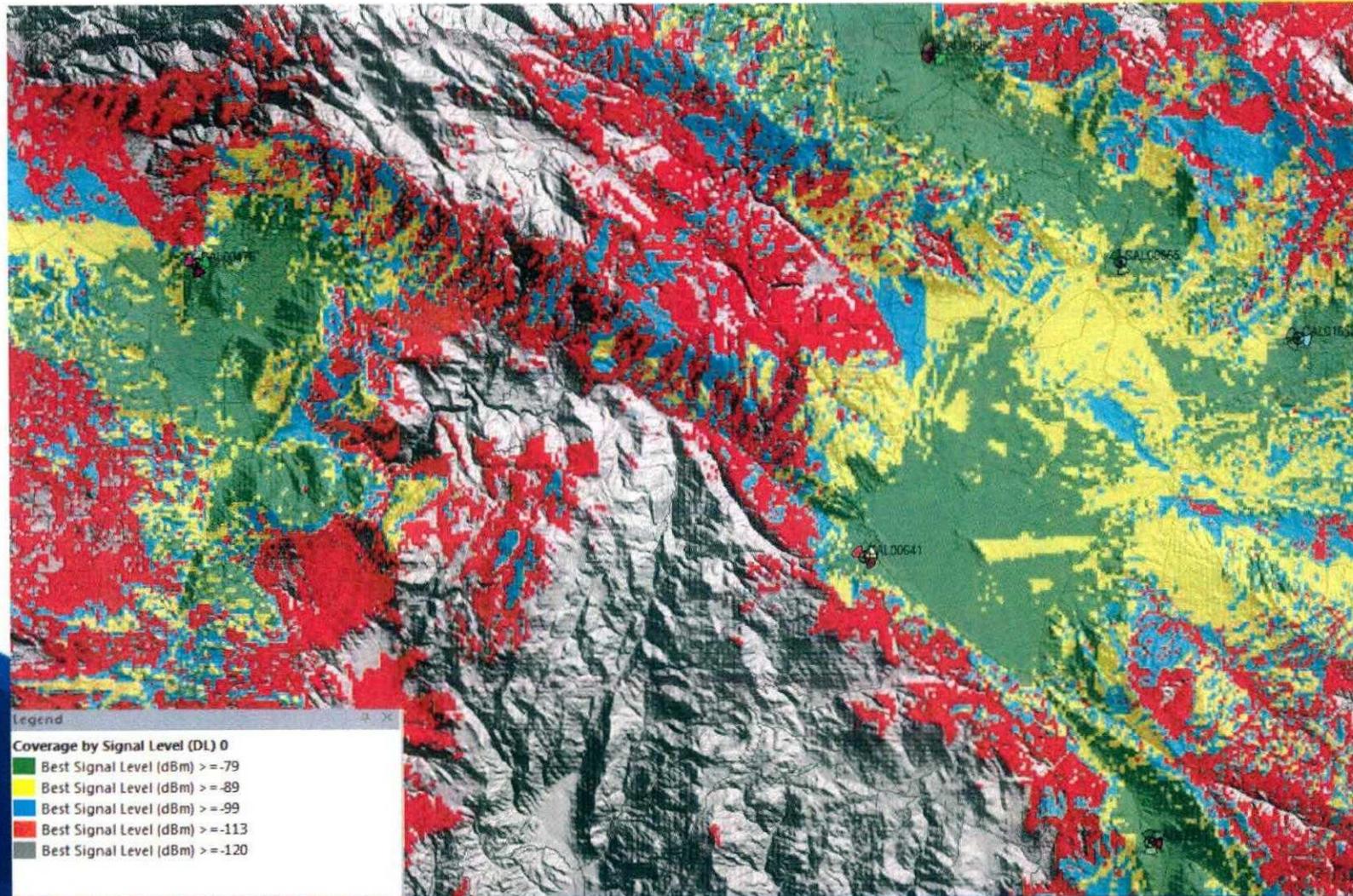
Proposed Coverage with SD0641 at 60' TOA



Proposed Coverage with SD0641 at 50' TOA



Proposed Coverage with SD0641 at 40' TOA



Proposed Coverage with SD0641 at 30' TOA

