

## ABOUT THE W6LHR REPEATER SYSTEM

The LHARG operates linked UHF & VHF repeaters located inside the Lincoln Hills Community. The repeaters have modest antenna elevation and operate as “local” rather than wide area, although they offer excellent coverage within our community and generally satisfactory coverage across many location in Roseville, Sacramento and points West.

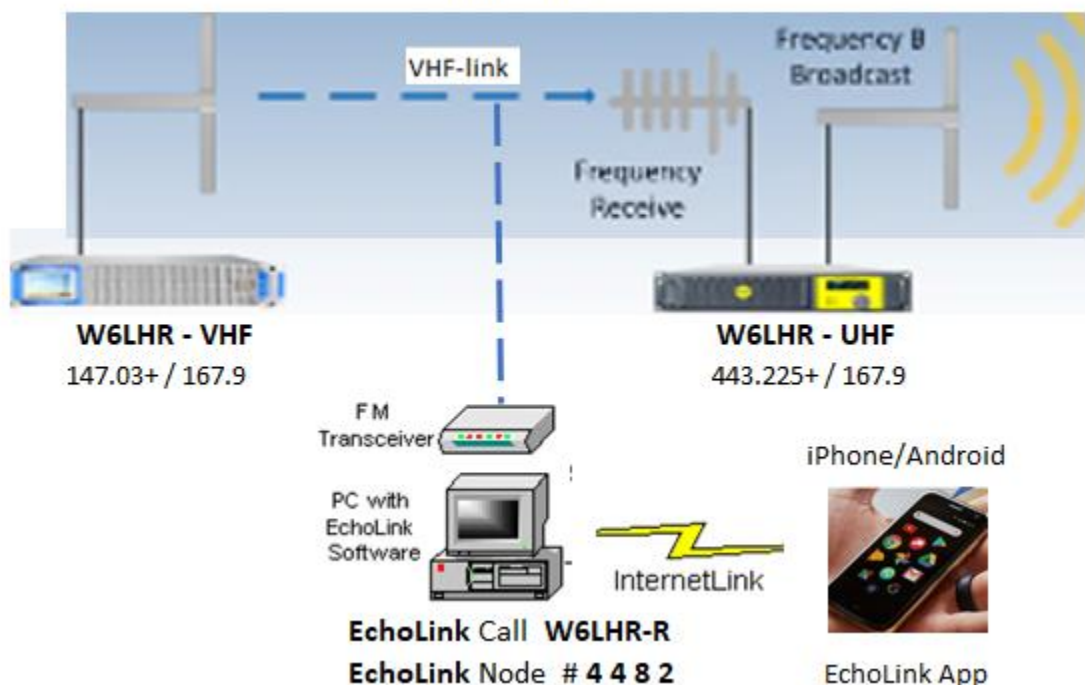
These are “open” repeaters – meaning any licensed Ham is welcome to use them. The VHF repeater (147.03+ PL 167.9) has the most reliable coverage and is preferred for normal use. Our backup UHF repeater (443.225+ PL 167.9) is normally linked to VHF as a convenience for those with UHF radios. If you have radio programming problems, contact us – we’re happy to help you!

Our VHF repeater is also connected to the “EchoLink” system and any licensed Ham can operate into the EchoLink universe using radio, iPhone or android-based cellular phone app (refer to <https://echolink.org/>). Our primary use is to allow club members and visitors to check into the Monday 7PM nets while travelling or having radio problems. EchoLink also allows operation into Nets or repeaters across the US and Worldwide. To access our repeater from within the app just search the directory for “W6LHR-R” or enter node 4484. If you need help getting EchoLink operating we’d be happy to help you!

Should the preferred VHF repeater become unavailable then the UHF repeater is operated stand-alone as the primary repeater and linked to the Club’s standard VHF simplex frequency (147.51 MHz PL 167.9). This allows both UHF & VHF radios to continue to operate through the UHF repeater.

### W6LHR Repeater System

Jan-2024



## **ABOUT THE W6LHR COVERAGE MAPS**

Our coverage maps represent areas with 95% reliability **between the repeater and an HT radio w/duck antenna operating 5 watts at an unobstructed outdoor location**. Actual results will certainly be **WORSE** with an HT using its “rubber ducky” antenna AND operating from within a building or from inside a stationary or moving vehicle. On the other hand, results will be **BETTER** when using a higher power mobile radio AND/OR using a base-station or roof-mounted auto antenna with high gain. For example:

### **Your Expected Coverage vs. the Maps Under Different Conditions**

Much worse	A Little Worse	About as Shown	Better
HT w/rubber-duck ant, 5w or less inside house	HT w/hi-gain roof ant, 5w moving car	HT w/duck ant 5w outdoors	Mobile w/hi-gain roof or outside ant, 10+w
HT w/rubber-duck ant, 5w or less inside car			

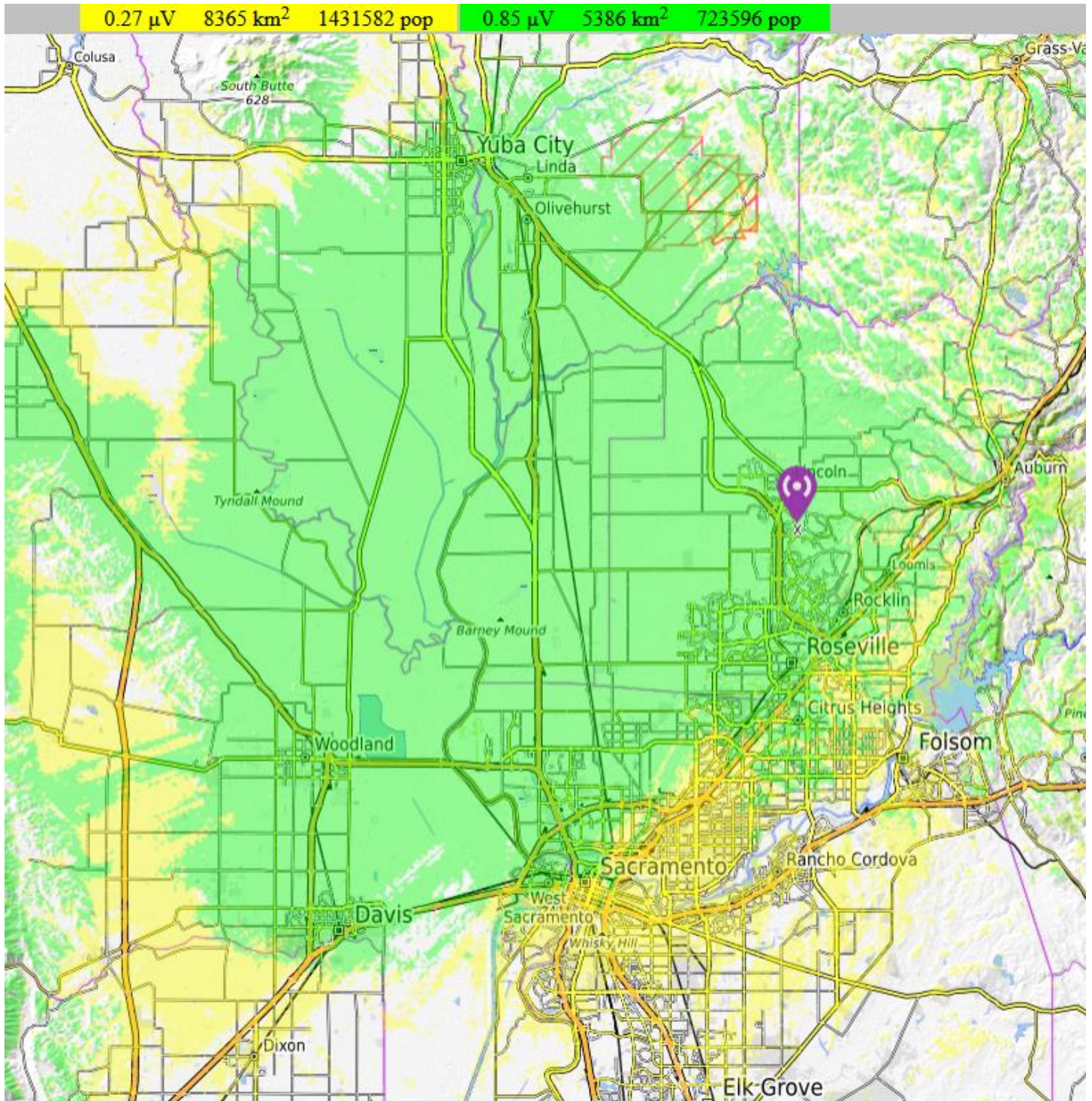
Actual coverage distance, speech clarity and incidental background noise will also be influenced by:

- Close-by buildings and other obstructions between the portable radio and the repeater
- Tropospheric and other atmospheric conditions, such as lightning
- Other strong transmitters nearby over-whelming the radio’s receiver or transmitted signal

## W6LHR COVERAGE MAPS

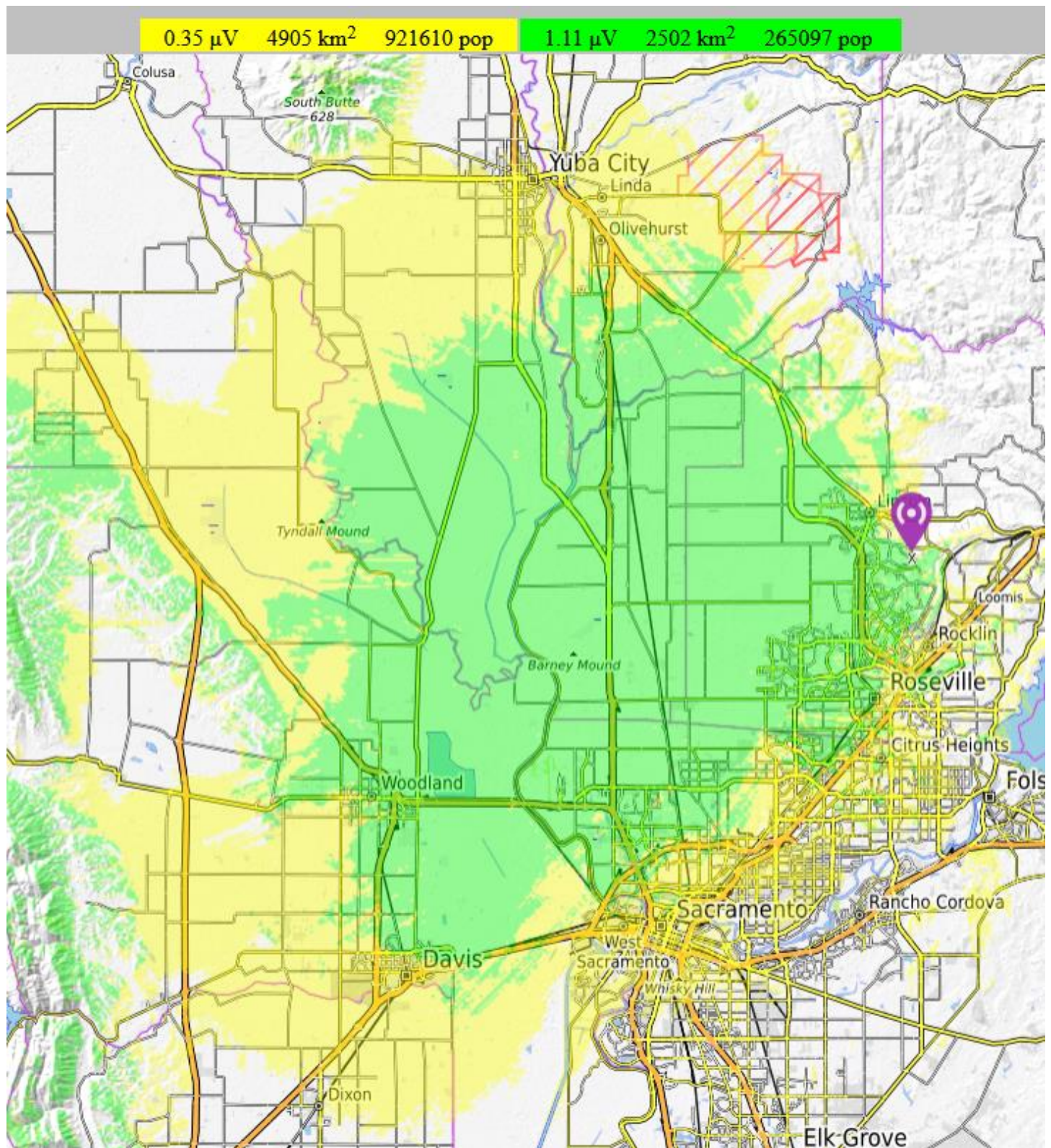
The areas shaded with GREEN on these maps are considered “Strong” and reliable with a 10dB signal margin while the YELLOW shaded have marginal or weak coverage. Operating into the repeater from unshaded map areas will likely be **UNSUCCESSFUL!**

### VHF Repeater Wide-Area Coverage:





# UHF Repeater Wide-Area Coverage:





VHF Repeater Lincoln Hills Area Detailed Coverage:

