

Mapping Tool for Auction 108 Applicants — Instructions

Introduction

This mapping tool can be used to help assess whether and to what extent there is unassigned 2.5 GHz spectrum available in any U.S. county and county equivalents available for assignment in Auction 108. The mapping tool can be found on the Auction 108 website at www.fcc.gov/auction/108/education. Further information about Auction 108 will be announced and posted to the Auction 108 website (www.fcc.gov/auction/108) as such information becomes available. In addition, any questions or requests for additional information regarding Auction 108 can be submitted via email at auction108@fcc.gov or via phone by calling (202) 418-2487 (WTB) or (202) 418-0660 (OEA).

The mapping tool provides a high-level view of spectrum availability for Auction 108. Interested parties are reminded that the maps and data displayed in the tool are not an official representation of license or application status. Users should consult the Universal Licensing System (ULS) to confirm the status of any license or application. ULS can be accessed directly at www.fcc.gov/uls.

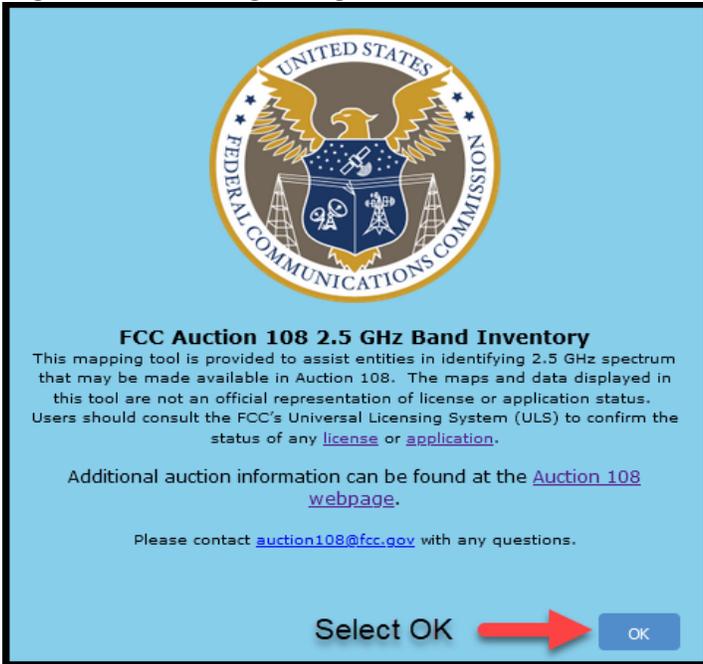
Each potential bidder is solely responsible for investigating and evaluating all technical and marketplace factors that may have a bearing on the potential uses of a license that it may seek in Auction 108, including the availability of unassigned white space in any particular license area. In addition to the typical due diligence considerations that we encourage of bidders in all auctions, we call particular attention in Auction 108 to potential encumbrances due to existing licenses and pending Rural Tribal Priority Window applications. We note in particular that there will be a substantial number of licenses in inventory where the amount of unassigned area or unassigned frequency is very small. For example, there could be licenses in channel block 2 where as little as .333 megahertz of spectrum is unassigned. There are also a substantial number of licenses where the area with unassigned spectrum is smaller than one square mile. Each applicant should carefully consider these issues and the technical and economic implications for commercial use of the 2.5 GHz band.

Map

As noted above, the FCC has provided a mapping tool to allow applicants in Auction 108 to perform preliminary research on whether there is available spectrum in a county. The mapping tool can be found on the Auction 108 website at www.fcc.gov/auction/108.

Click on the “Education” tab and then the link for the mapping tool. You will get a box that states that you are leaving the FCC website. Review the disclaimer language, click on the OK button, and you will see the mapping tool begin to load.

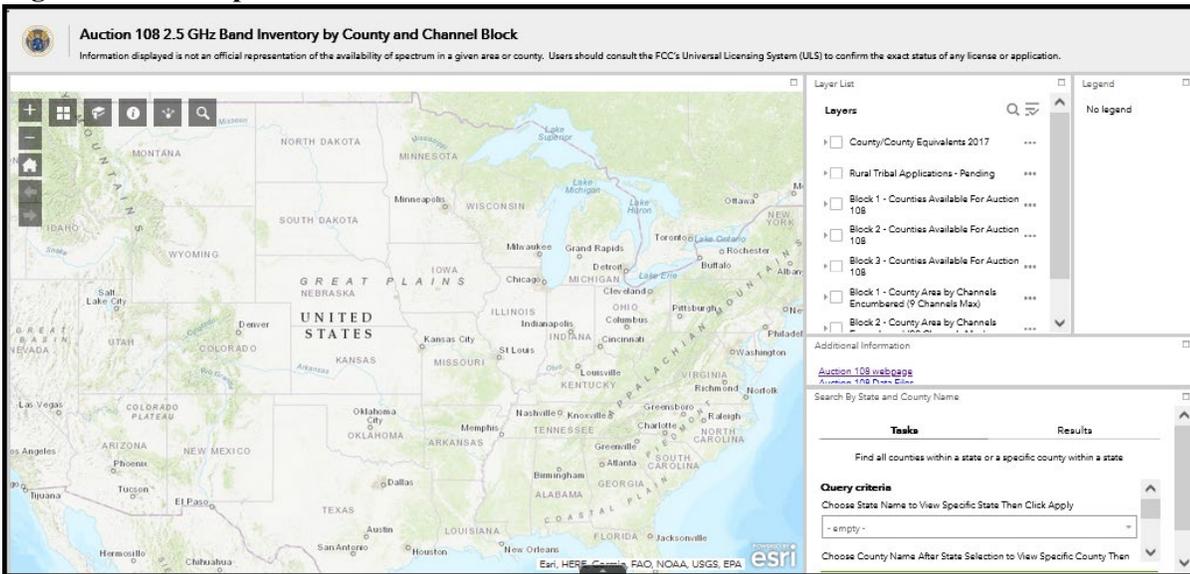
Figure 1: Notice Regarding Consultation of ULS for Official Data



Please note that this mapping tool is provided to assist entities in identifying 2.5 GHz spectrum that may be made available in Auction 108. The maps and data displayed in the tool are not an official representation of license or application status. Users should consult ULS to confirm the status of any license or application. ULS can be accessed directly at www.fcc.gov/uls.

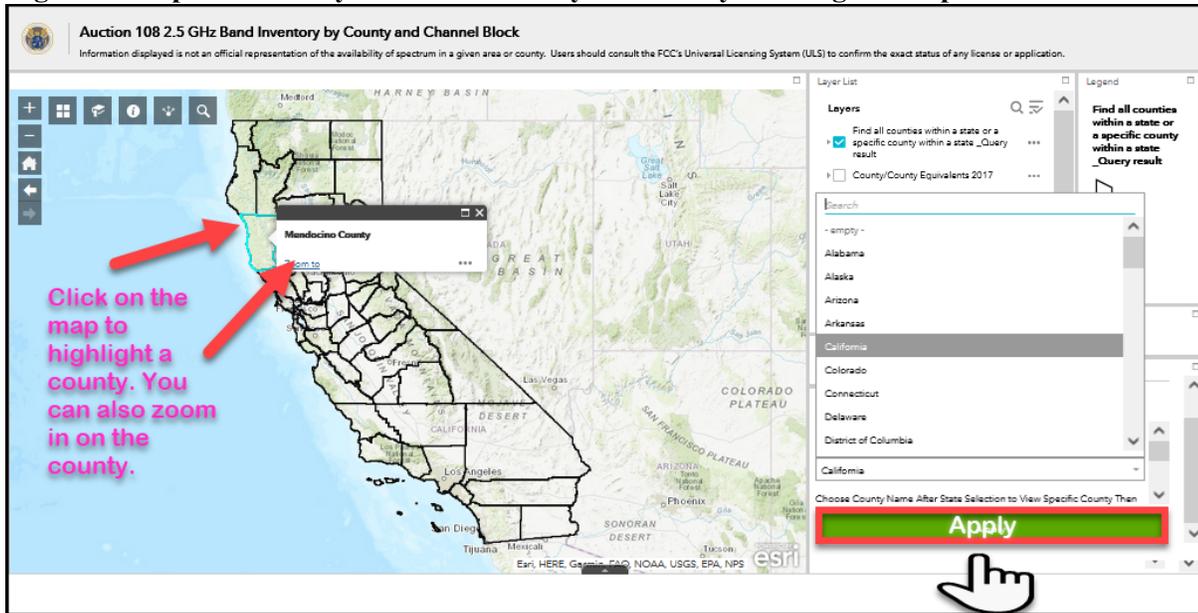
Click OK to display the base map.

Figure 2: Base Map



There are two ways to use the state and county search function. First, you can scroll through the list of states listed in alphabetical order (See Figure 3), or you can begin typing a specific state in the text box. Once the state is entered, you can scroll through the list of counties (in alphabetical order) within the state, or you can begin

Figure 5: Map Searched by State with County Selected by Clicking the Map



To view the map from different vantage points and move around the map, you can start on the top left-hand corner, where you will see a set of squares with icons.

Selecting the icon with four squares will provide different base maps such as topography, imagery, and street map views. To select a specific base map (See Figure 6), click on the selected image, and the underlying map should change. You can also view the entire map by clicking the home icon (See Figure 7), which will zoom out to show the continental United States. If you want to zoom in, use the plus and minus icons (See Figure 7). To move the map, hover the cursor over the map, left click the mouse, and hold to drag the map to different areas. If you would like to go back to a previous area that you were viewing, you can use the arrow icons to go back and forward like you do with an internet browser, or you can use the “Query Search” function.

Figure 6: Changes in Base Map

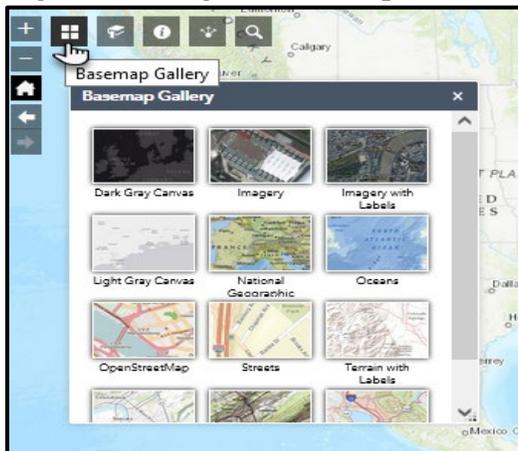
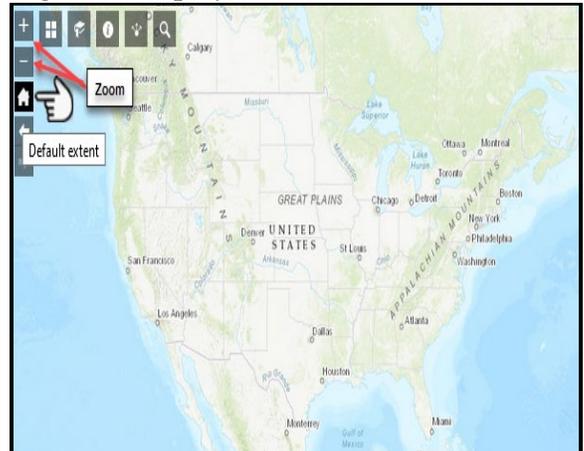
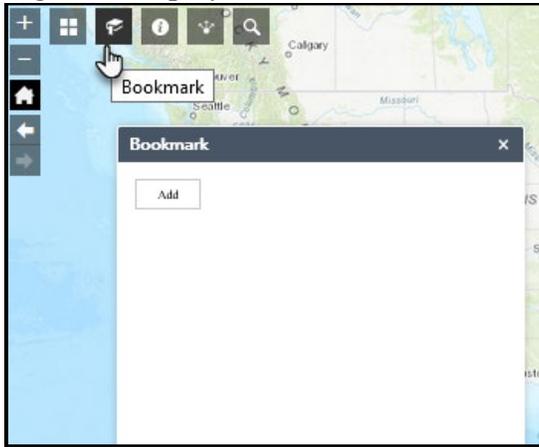


Figure 7: Displays Home and Zoom Features



Finally, the bookmark icon (See Figure 8) will allow you to set a bookmark and/or return to any previously saved bookmarks.

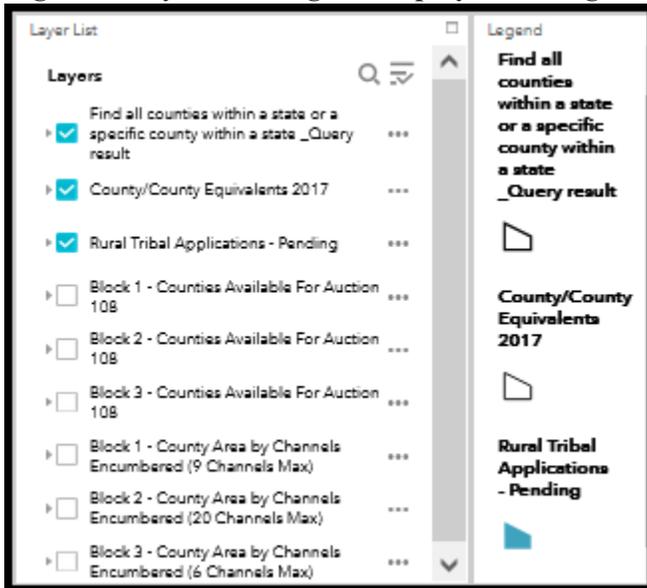
Figure 8: Displays the Bookmark



On the right-hand side of the map, you will see a “Layers” list with checkboxes. Each of these checkboxes represents a layer of data that will be visually depicted on the map. Using our Mendocino County example, the first layer depicts your search results, as illustrated in Figure 4.

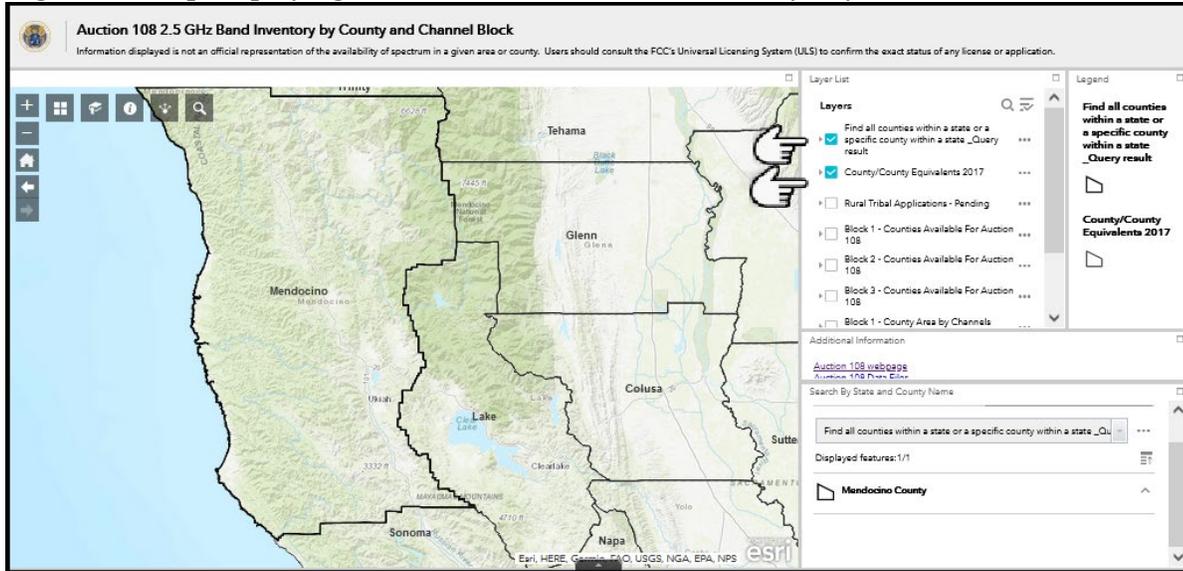
When you click on a layer, you will see a “Legend” that provides visual information that corresponds with the layers selected on the map (Figure 9).

Figure 9: Layers and Legend Display to the Right of the Map



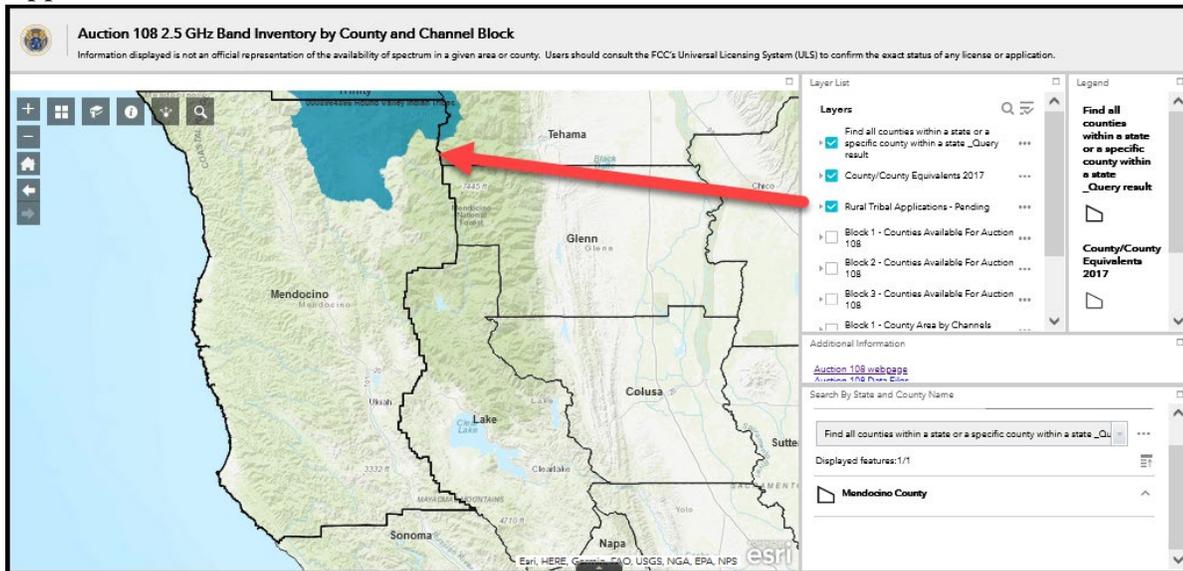
To find out what is available, you can move through several layers, each of which provides different information. Immediately following the search results is the county layer. By selecting the “County/County Equivalents 2017” layer, you will see outlines for every county and county equivalent (See Figure 10).

Figure 10: Map Displaying Search Results and the 2017 County Layer



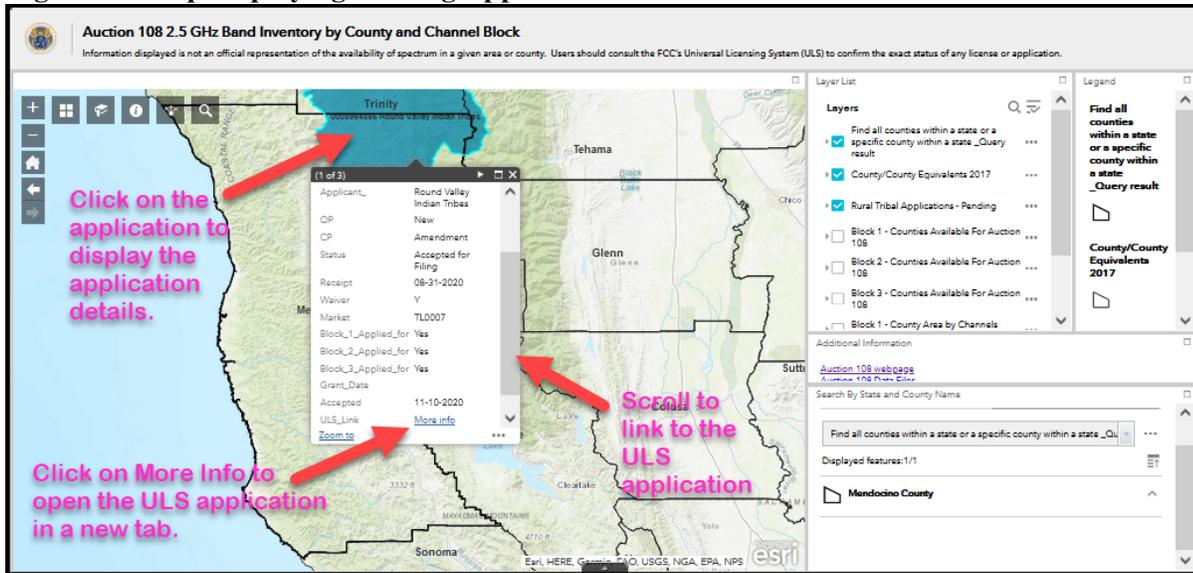
The third layer is “Rural Tribal Applications-Pending.” By selecting this layer, you will see the applications that were filed in the Rural Tribal Priority Window that remain pending (See Figure 11). Where Rural Tribal Priority Window applications have already been granted, that spectrum is already shown as unavailable. When these pending applications are acted upon, the mapping tool will be updated and some areas may be removed from inventory. Back to our example, you will see that there is a pending Rural Tribal Priority Window application in part of Mendocino County which appears in dark blue.

Figure 11: Map Displaying Search Results, 2017 Counties, and Pending Rural Tribal Priority Window Applications



By clicking on the application area shown in dark blue, you will get a pop-up box that provides information on the pending application and provides a direct link to the application in ULS (See Figure 12).

Figure 12: Map Displaying Pending Application details and Direct Link to ULS



You can select checkboxes for “Block 1, 2, and/or 3 - Counties Available for Auction 108” to see if a county is available in Auction 108. A county that shows in light blue has some unassigned spectrum on a particular channel block, and a county that shows as clear has no assigned spectrum on a particular channel block. A channel block that shows as available for auction does not indicate that the *entire* channel block is available. As noted above and elsewhere, there are some channel blocks available for auction that have very small amounts of available spectrum. Entities are reminded to do their due diligence in deciding whether or not to bid in a particular county. The example of Mendocino County shows available spectrum over all three channel blocks (See Figures 13, 14, and 15).

Figure 13: Channel Block 1 Counties Available for Auction 108

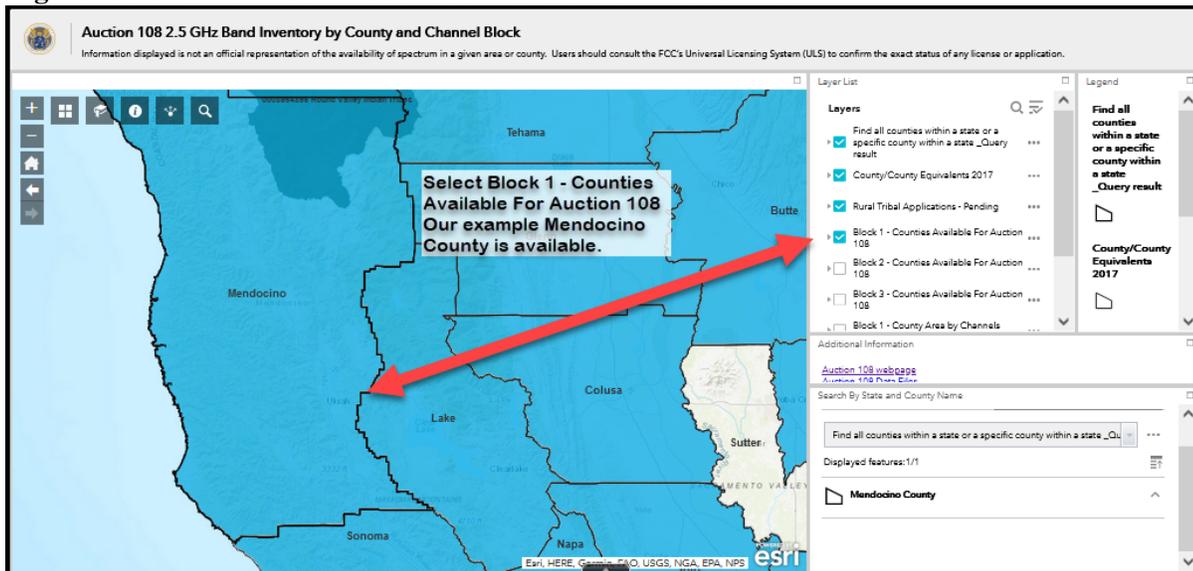


Figure 14: Channel Block 2 Counties Available for Auction 108

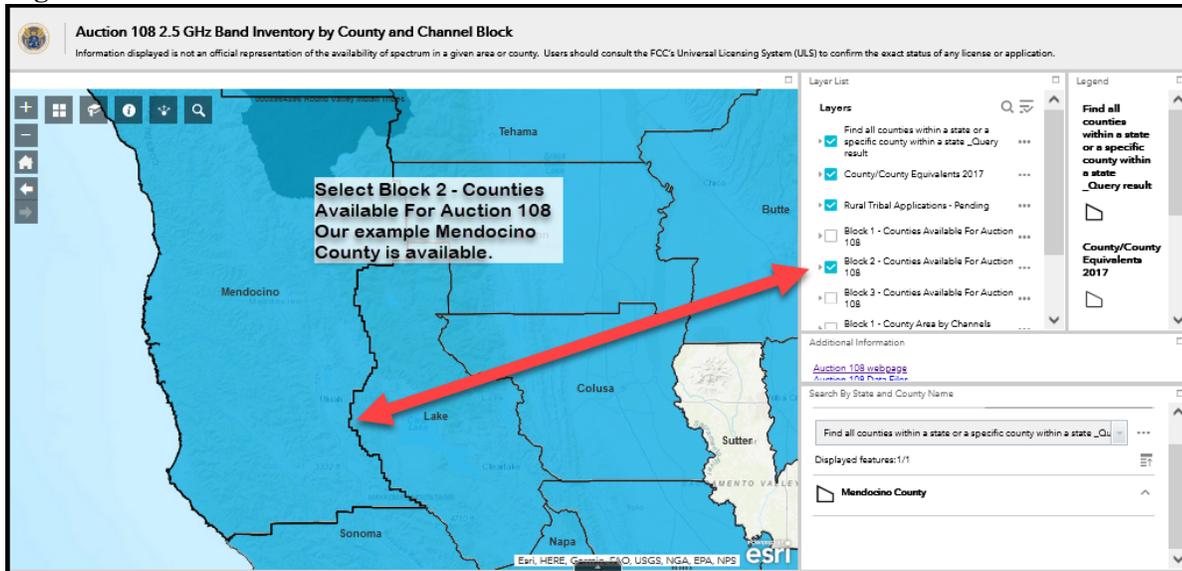
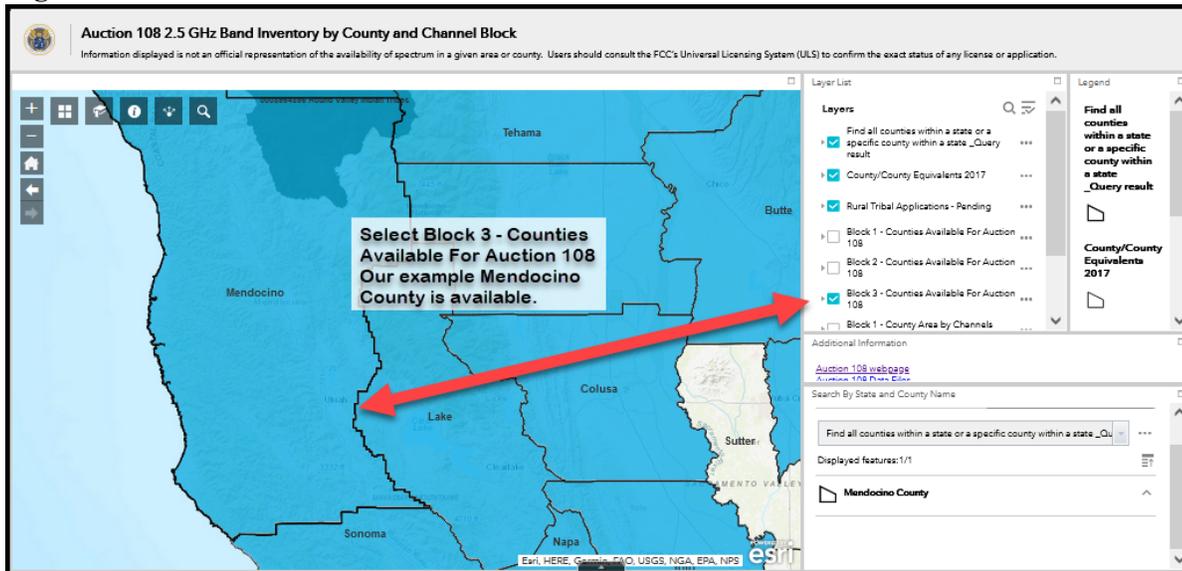


Figure 15: Channel Block 3 Counties Available for Auction 108



You can select checkboxes for “Block 1, 2, and/or 3 - County Areas by Channels Encumbered” to see a heat map of existing license holdings for each channel block. On the right-hand side, the legend will correspond to the color shown on the map. The lighter the color, the less spectrum is currently licensed, which indicates greater availability for a potential bidder. Using the Mendocino County example, you can see that there are differing amounts of availability for each of the three channel blocks (See Figures 16, 17, and 18).

Figure 16: Displays Block 1 Channels Encumbered in Mendocino County

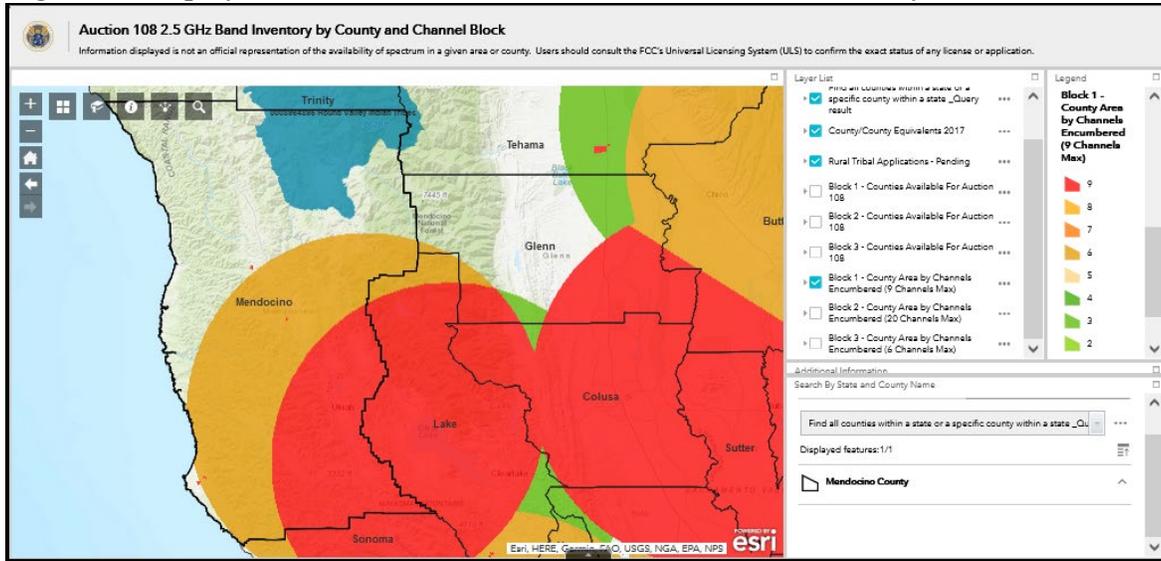


Figure 17: Displays Block 2 Channels Encumbered in Mendocino County

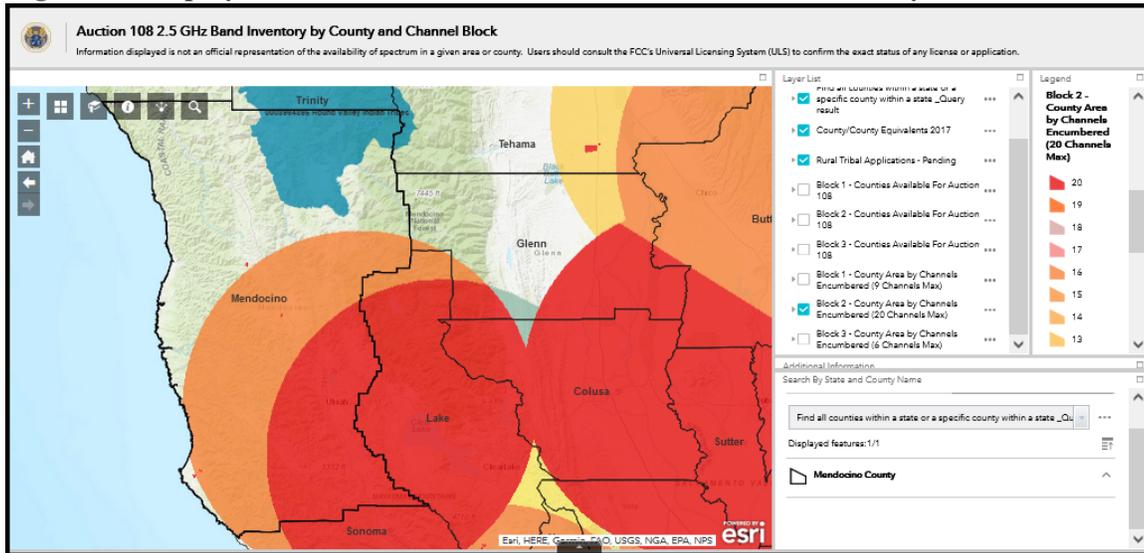
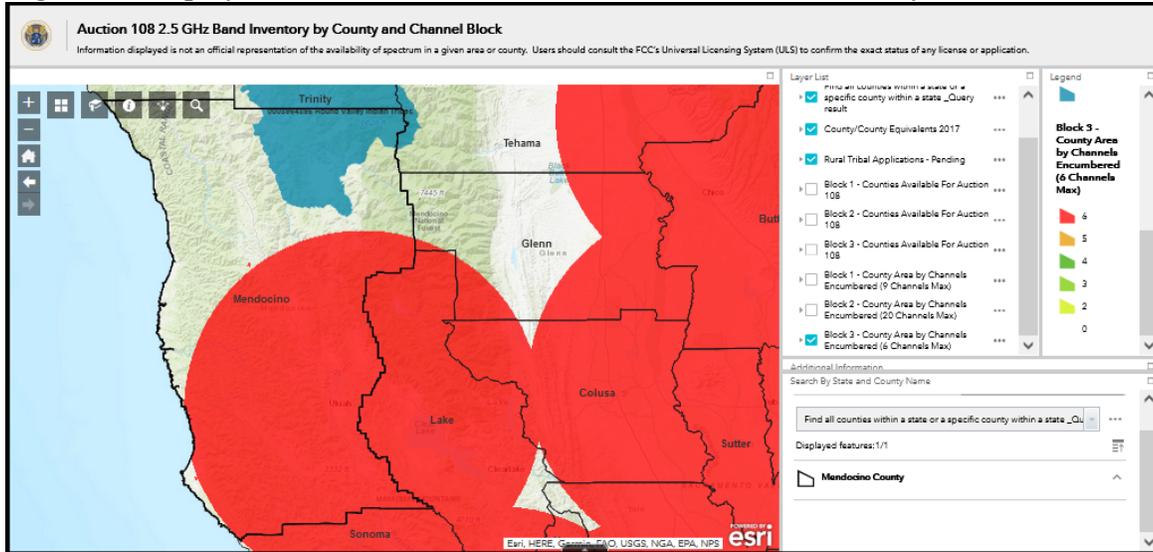


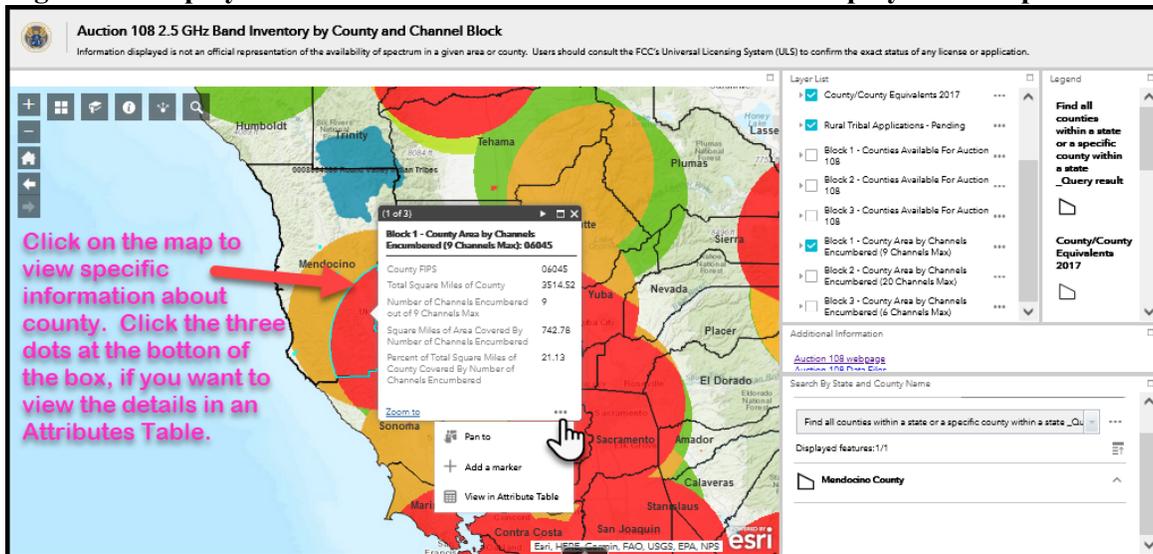
Figure 18: Displays Block 3 Channels Encumbered in Mendocino County



For channel block 1 in Mendocino County, you can see the red area that, as noted in the legend, means that all 9 channels are already licensed to incumbents and are unavailable for Auction 108. The dark yellow area means that 6 of the 9 channels are already assigned to incumbents and unavailable in that area. The clear area in the county is fully available.

For more information on spectrum availability, you can select a particular channel and click on a specific area of the map. By clicking on the county, you will get a pop-up box that provides the following information with respect to a particular county: “County FIPS” code, “Total Square Miles of County,” “Number of Channels Encumbered out of Total Channels Max” available on a channel block, “Square Miles of Area Covered By Number of Channels Encumbered”, and “Percent of Total Square Miles of County Covered By Number of Channels Encumbered” (See Figure 19).

Figure 19: Displays Block 1 Encumbered Channels with Details Displayed for a Specific Area



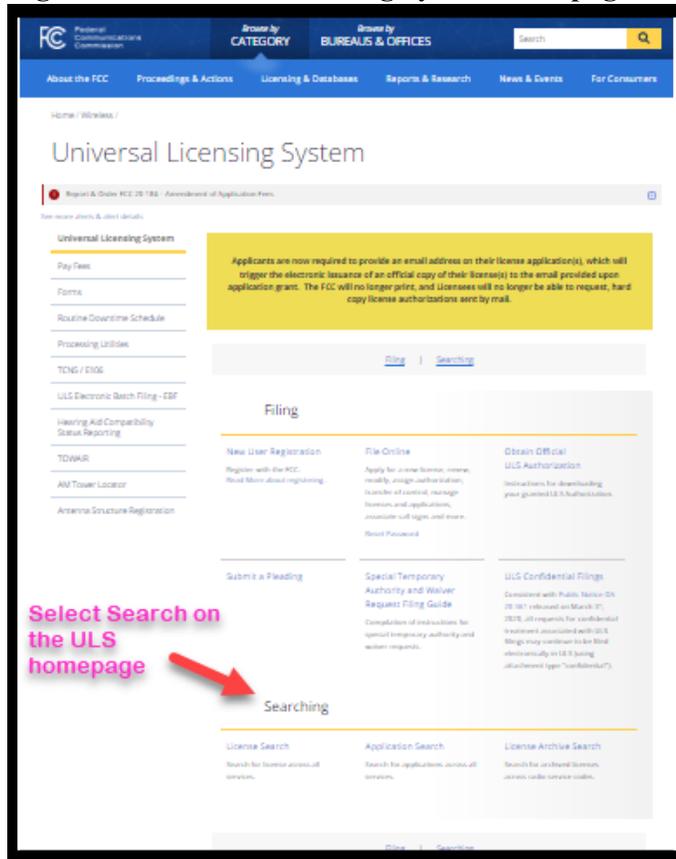
Using the Mendocino County example, when you click “Block 1 County Areas by Channels Encumbered,” you will see that the northern portion of the county is white, which demonstrates that all spectrum in that portion is available to a potential Auction 108 participant. Looking at the southern portion of the county, you will see

different colored circles showing different numbers of channels encumbered, with the area in red being completely covered and not available for use at this time. As stated above, while this mapping tool is helpful for visualization purposes, it is strongly recommended that potential applicants also conduct license research in a specific area to determine what may be available.

ULS

To conduct further related research on a specific licensee in a specific area, interested parties should access ULS at www.fcc.gov/uls. To search ULS for license and application information, you can go here: www.fcc.gov/wireless/universal-licensing-system#searching. (See Figure 20).

Figure 20: Universal Licensing System Homepage



Information on using ULS to research incumbent licenses and pending applications can be found here: www.fcc.gov/wireless/support/universal-licensing-system-uls-resources/search-find-licenses-applications.

Additional Information

For more detailed information regarding Auction 108, please visit the Auction 108 website (www.fcc.gov/auction/108/). In addition, any questions or requests for additional information regarding Auction 108 can be submitted via email at auCTION108@fcc.gov or via phone by calling (202) 418-2487 (WTB) or (202) 418-0660 (OEA).