Data Format for Mobile Broadband Deployment

INSTRUCTIONS:

1. **Please submit your data using the corresponding CPUC *Mobile Deployment shapefile*.** (For your convenience, the data fields are the same as the FCC 477 Mobile Broadband Deployment data fields.)
2. Add your DBA name to the beginning of the file name, followed by an underscore **"_" (i.e. *AAAMobile_Mobile_Deployment_<year>*).**
3. Submit to broadbandmapping@cpuc.ca.gov by the deadline.

Mobile wireless broadband providers should submit polygons in a shapefile format representing geographic coverage in the state of California, for each transmission technology deployed in each frequency band.

The data associated with each polygon should indicate the **minimum** advertised upstream and downstream data speeds associated with that network technology in that frequency band, and the coverage area polygon should depict the boundaries where users should expect to receive those advertised speeds. If your company advertises different minimum upstream and downstream speeds in different areas of the state using the same technology and frequency band (e.g., HSPA+ on AWS spectrum), then you should submit separate polygons showing the coverage area for each speed. A variation in technology, frequency band, or speed requires the submission of a separate polygon. If your company does not advertise the minimum upstream and/or downstream data speeds, then indicate the minimum upstream/downstream data speeds that users should expect to receive within the polygon depicting the geographic coverage area of the deployed technology in the given frequency band.

STANDARDS:

1. All map areas must be closed, non-overlapping polygons with a single, unique identifier.

2. Any variation in any of the required fields necessitates the creation of a separate polygon showing the relevant coverage. In other words, each polygon must have a single value for each of the following fields: technology, spectrum, downstream bandwidth, and upstream bandwidth.

3. The shapefile must have an assigned projection with an accompanying .prj file.

4. The shapefile must use unprojected (geographic) WGS84 geographic coordinate system.

5. The coverage boundaries should have a resolution of 100 meters (approximately three arc-seconds) or better. An arc-second represents the distance of latitude or longitude traversed on the earth's surface while traveling one second (1/3600th of a degree). *See* ESRI Explanation of Measuring in Arc-Seconds. Three arc-seconds is a common resolution of terrain databases. *See* USGS Standards for Digital Elevation Models, Part 1-General, at 1-2, 1-4.

6. The shapefile must be submitted as a *.zip file. This can be done with a program like WinZip or, in Windows by selecting the files associated with a shapefile, right-clicking the files, then clicking **Send to** then **Compressed (zipped) folder…**. Be sure that your *.zip file contains one and only one shapefile.

7. In addition to the shapefile, each submitted *.zip file must include metadata or a plain text "readme" file that contains a comprehensive explanation of the methodology employed to generate the map layer including any necessary assumptions and an assessment of the accuracy of the finished product.

DATA FIELDS:

The following 5 data fields must accompany each polygon. The field names must appear in the shapefile attribute table as shown below:

Field	Description	Type	Example
DBA	Name of the entity customers could contact to purchase service in this area with the characteristics below	Text	AAA Mobile
TECHNOLOGY	Code for the technology used for the provision of service. The valid codes are: 80 WCDMA/UMTS/HSPA 81 HSPA+ 82 EVDO/EVDO Rev A 83 LTE 84 WiMAX 85 CDMA 86 GSM 87 Analog 88 Other	Integer	81
SPECTRUM	Code for spectrum used for the provision of service. The valid codes are: 90 700 MHz Band 91 Cellular Band 92 Specialized Mobile Radio (SMR) Band 93 Advanced Wireless Services (AWS) 1 Band 94 Broadband Personal Communications Service (PCS) Band 95 Wireless Communications Service (WCS) Band 96 Broadband Radio Service/Educational Broadband Service Band 97 Satellite (e.g. L-band, Big LEO, Little LEO) 98 Unlicensed (including broadcast television "white spaces") Bands 99 600 MHz 100 H Block 101 Advanced Wireless Services (AWS) 3 Band 102 Advanced Wireless Services (AWS) 4 Band 103 Other	Integer	91
MINDOWN	The minimum advertised downstream bandwidth, or the downstream speed users should expect to receive in the coverage area, in Mbps. (You can enter up to 3 places after the decimal (i.e. 768 = 0.768)	Float	3
MINUP	The minimum advertised downstream bandwidth, or the downstream speed users should expect to receive in the coverage area, in Mbps. (You can enter up to 3 places after the decimal (i.e. 768 = 0.768)	Float	0.768