



SBA Communications Corporation
8051 Congress Avenue
Boca Raton, FL 33487-1307

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F + 561.995.7626

sbasite.com

March 19, 2019

To the Honorable Dane County Community

Re: Conditional Use Permit Application (CUP) #2456 – Bug Tussel Wireless

My name is Kent Meier, and I am the Site Marketing Manager for SBA Communications Corporation (SBA). I have been in this position for seven years, but I have worked in the cell tower industry for more than 20 years.

It is my job to interact with carriers, such as Bug Tussel Wireless, when the carriers have interest in locating onto an SBA cell tower. I maintain an open line of communication with the carriers to discuss tenant issues, including but not limited to collocation, new equipment, centerline placement of equipment onto SBA cell towers and other related matters. I maintain an open line of communication for the SBA Dane County cell towers.

I reviewed my corporate records and SBA most certainly can accommodate equipment for Bug Tussel Wireless at our Dane County cell tower located at 252 Old Highway 69 in Belleville, including 5G equipment. The SBA Dane County cell tower has more than adequate structural capacity and space for collocation. SBA designed the Dane County SBA site to house multiple tenants, but has only one tenant on it currently. SBA would certainly appreciate the opportunity to gain Bug Tussel Wireless as a tenant. If they collocate, it would help prevent the unnecessary proliferation of cell towers in Dane County.

I attached a copy of an email inquiry string regarding Mobilite's preliminary questions about the SBA Dane County cell tower. Although Bug Tussel Wireless inquired, they did not submit a collocation application, but instead asked very preliminary questions. I consider the Bug Tussel Wireless inquiry to show "virtual" interest, not actual interest in collocation. SBA stands ready willing and able to discuss a Bug Tussel collocation opportunity onto either of the SBA Dane County cell towers.

In addition, Bug Tussel Wireless collocation onto the SBA Dane County cell tower would support the Dane County Comprehensive Plan Agricultural and Mineral Resources Goal #1, Supporting Objective A., by minimizing the amount of land converted from agricultural use to accommodate permitted non-farm development.

Very truly yours,

A handwritten signature in black ink, appearing to read "Kent Meier", is written over a horizontal line.

Kent Meier
SBA Site Marketing Manager
WI, IA, IL, MN, ND, SD

From: Kent Meier <kmeier@sbsite.com>
Sent: Friday, December 21, 2018 10:08 AM
To: Terry Roth <troth@mobilitie.com>
Cc: Kent Meier <kmeier@sbsite.com>
Subject: RE: [External] Inquiry on WI12734-B

This is a 170' MP with 160' the highest available spot.

Let me know if you have any additional questions.

Thank you,

Kent Meier
Site Marketing Manager
IA, IL, MN, ND, SD, WI

414.788.1133 + C

From: Terry Roth <troth@mobilitie.com>
Sent: Friday, December 21, 2018 9:51 AM
To: Kent Meier <kmeier@sbsite.com>
Subject: RE: [External] Inquiry on WI12734-B

Kent-

The highest available on the tower.

Thanks,

Terry Roth | NRE Manager
terry.roth@mobilitie.com

mobilitie
intelligent infrastructure

120 S. Riverside Plaza, Chicago, IL 60606
312 638 5355 tel | 773 255 1597 mobile
www.mobilitie.com

From: Kent Meier <kmeier@sbsite.com>
Sent: Friday, December 21, 2018 9:48 AM
To: Terry Roth <troth@mobilitie.com>
Subject: RE: [External] Inquiry on WI12734-B

Terry,
Can you tell what heights that Bug Tussell are looking for.

Thank you

Kent Meier

Site Marketing Manager
IA, IL, MN, ND, SD, WI

414.788.1133 + C

From: Terry Roth <troth@mobilitie.com>
Sent: Friday, December 21, 2018 7:39 AM
To: Kent Meier <kmeier@sbsite.com>
Subject: RE: [External] Inquiry on WI12734-B

Kent-

I'm asking on behalf of Bug Tussel Wireless.

Thanks,

Terry Roth | NRE Manager
terry.roth@mobilitie.com

mobilitie
intelligent infrastructure

120 S. Riverside Plaza, Chicago, IL 60606
312 638 5355 tel | 773 255 1597 mobile
www.mobilitie.com

From: Kent Meier <kmeier@sbsite.com>
Sent: Friday, December 21, 2018 6:18 AM
To: Terry Roth <troth@mobilitie.com>
Subject: Re: [External] Inquiry on WI12734-B

Terry,
Can you tell me what carrier you are inquiring about.

Thank you

Kent Meier
Site Marketing Manager
IA, IL, MN, ND, SD, WI

SBA COMMUNICATIONS CORPORATION
8051 Congress Avenue
Boca Raton, FL 33487-1307

414.788.1133 + C
kmeier@sbsite.com

Your Signal Starts Here.

On Dec 20, 2018, at 5:04 PM, Terry Roth <troth@mobilitie.com> wrote:


Hi Kent-

Can you please send me the available heights on the above site?

Thanks,

Terry Roth | NRE Manager
terry.roth@mobilitie.com

<image001.png>
120 S. Riverside Plaza, Chicago, IL 60606
312 638 5355 tel | 773 255 1597 mobile
www.mobilitie.com



David Cotton, PE
17852 Lizern Ln, Redding, CA, 96003-0775

SBA Communications Corporation
8051 Congress Avenue
Boca Raton, FL 33487-1307

Subject: RF Coverage Plot Analysis: Dane County, WI

Date: 18 March 2019

1. **METHODOLOGY.** The attached plots depict broadcast radio frequency (RF) coverage from the existing site in Dane County, WI and a proposed site approximately 1.25 miles to the northeast. At each location, cellular industry typical LTE operating parameters were considered for omnidirectional antennas mounted at 165 feet above ground level at the existing site, and at 225 feet above ground level for the proposed site. Ground elevations are 1120 and 970 feet above mean sea level, respectively. 5G Broadcast RF coverage was not reviewed since it is not operational as of this date.

Plots for both locations were generated for 700, 850, 1900 and 2100 MHz operations. The signal levels depicted are associated with LTE service reliability where the strong coverage levels in green and blue occur near the towers and decrease with distance from the sites and intervening terrain obstructions. Signal levels greater than -70 dBm shown as blue are associated with feasible coverage within buildings. Marginal coverage is provided in the regions depicted in yellow between -90 dBm and -80 dBm and signal levels between -100 dBm and -90 dBm shown as red represent poor coverage associated with call failures.

A comparison of coverage performance for each site is based on low band (700 and 850 MHz) and high band (1900 and 2100 MHz) prediction results. Radiowave propagation conditions between these bands differ because of terrain and ground clutter (e.g. vegetation) effects at different frequencies. Generally, low band operations provide greater area coverage. Therefore, high band operations provide additional customer traffic capacity closer to the cellular site.

2. **COMPARISON.** The sites considered in these coverage plots provide service to the depicted locations and roads west of Belleville. For low band operations, the existing location provides strong coverage within 0.7 miles of the site. Within 4.0 miles of the site, the existing location provides regions of strong coverage to the north and east. Strong coverage is provided to 1.5 miles of Route 69 and 0.9 miles of Route 92. The proposed site provides strong coverage within 0.8 miles of the tower location and to portions within 4.0 miles to the east and 2.7 miles to the north. Strong coverage is provided to 0.4 miles of Route 69 and 0.4 miles of Route 92.

For high band operations, both sites provide strong coverage with 0.5 miles from the respective tower locations in all directions. Strong coverage is extended by the existing site within 1.6 miles to the northeast. The proposed site provided extended strong coverage to within 2.0 miles to the northwest, north and east.

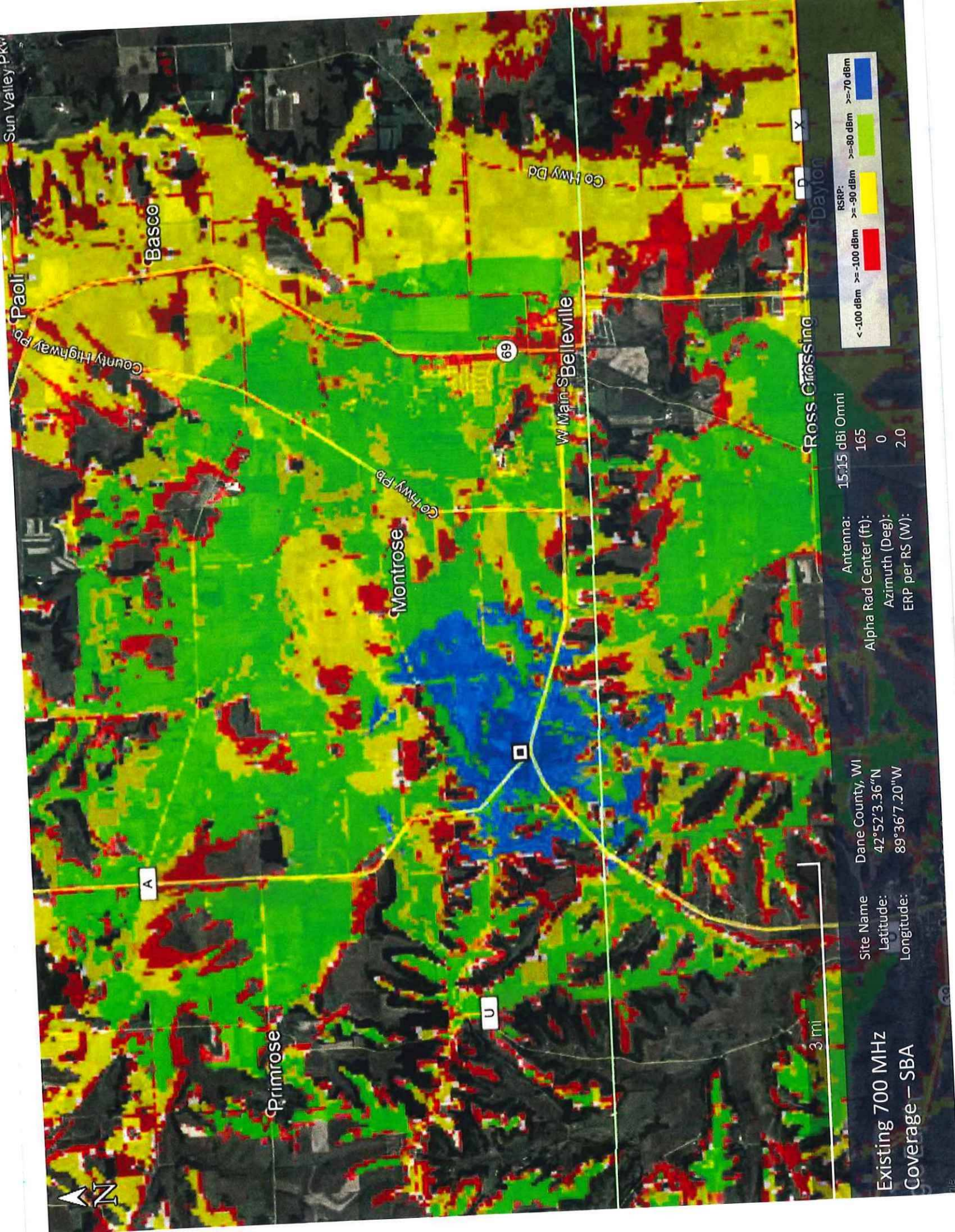
David Cotton, PE
17852 Lizern Ln, Redding, CA, 96003-0775

3. CONCLUSION. Based on the coverage comparison presented above, the existing and proposed sites provides similar coverage to regions west of Belleville in Dane County. Coverage differences are attributed to the separation distance between tower locations. For wireless operators with antennas mounted on the existing site, the installation of additional antennas on the proposed site would be considered to be an "overbuild" or impractical given the coverage overlap.



A handwritten signature in black ink that reads "David Cotton, Jr." in a cursive style.

David C. Cotton, Jr.
Professional Engineer
State of Wisconsin, E-40731
Date: 2019-March-18



Antenna: 15.15 dBi Omni
 Alpha Rad Center (ft): 165
 Azimuth (Deg): 0
 ERP per RS (W): 2.0

Site Name: Dane County, WI
 Latitude: 42°52'3.36"N
 Longitude: 89°36'7.20"W

Existing 700 MHz
 Coverage - SBA



3 mi

A

U

X

D

69

Sun Valley Pkwy

Basco

Co Hwy Dd

Ross Crossing

Dayton

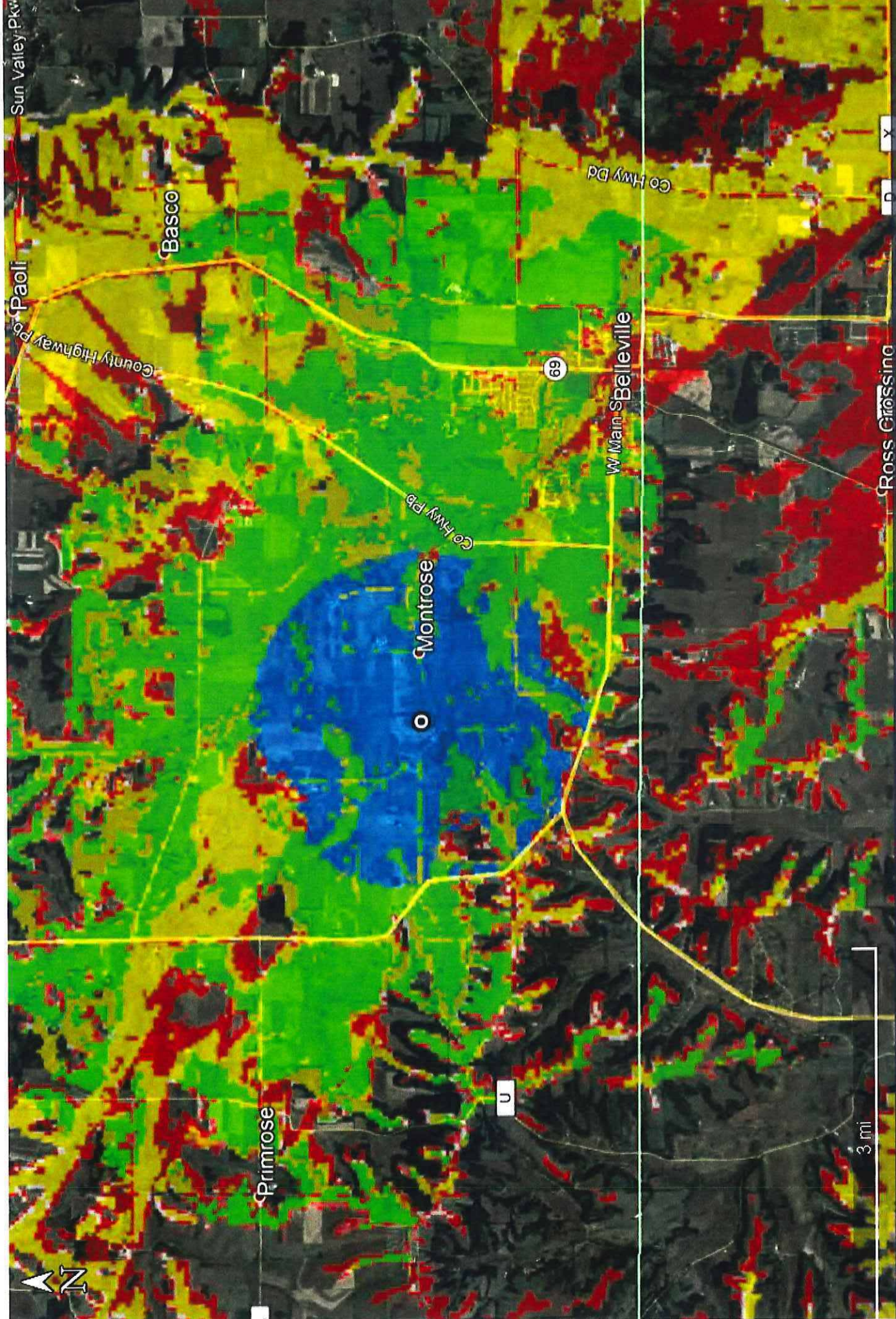
W Main Belleville

Co Hwy Pb

Montrose

Primrose

County Highway Paoli



Antenna: 15.15 dBi Omni
 Alpha Rad Center (ft): 225
 Azimuth (Deg): 0
 ERP per RS (W): 2.0

Site Name: Dane County, WI
 Latitude: 42°52'57.63"N
 Longitude: 89°35'16.45"W

**Proposed 700 MHz
 Coverage – Applicant**

3 mi



Primrose

Montrose

W Main Belleville

Basco

Paoli

Sun Valley Pkwy

69

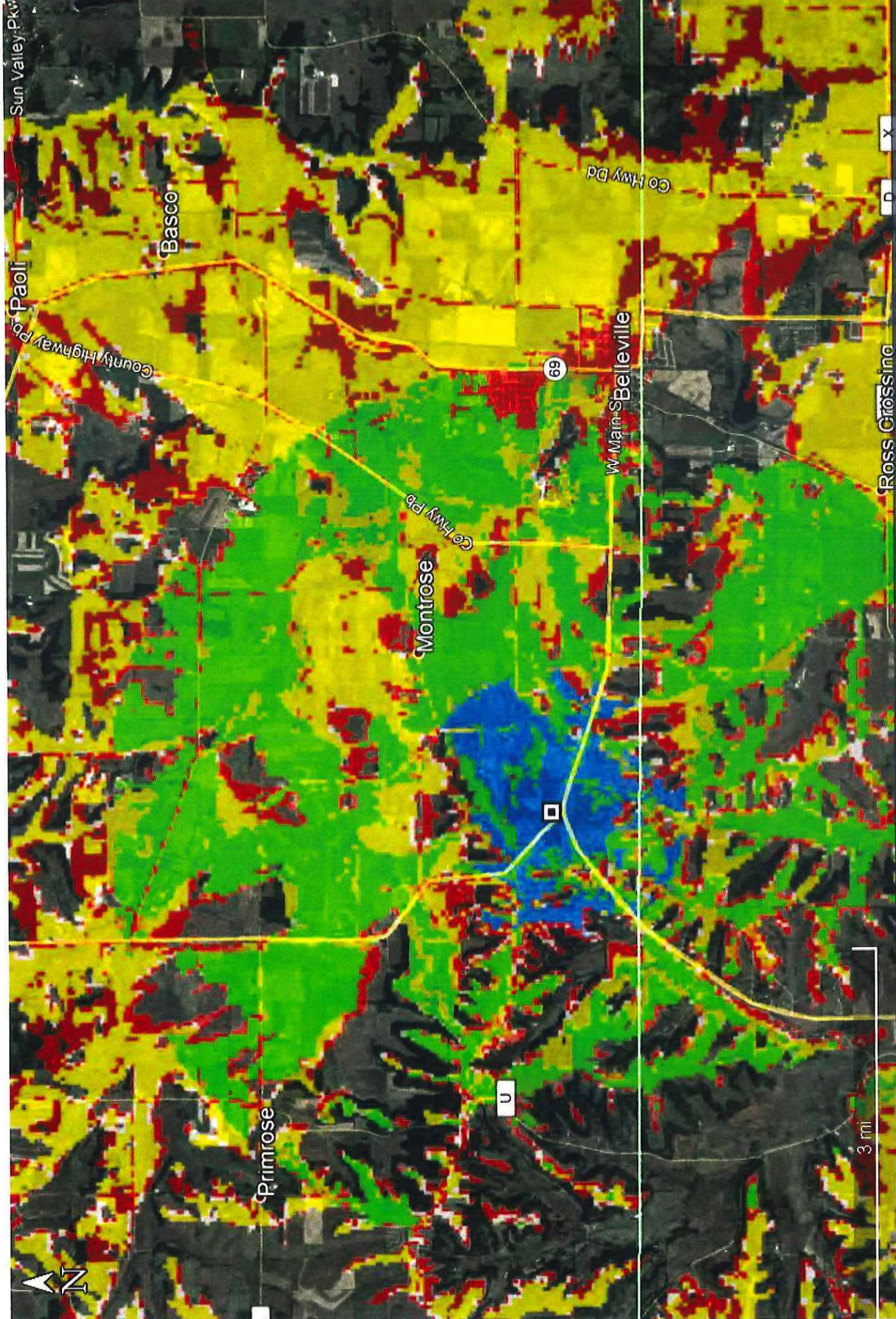
U

Ross Crossing

Dayton

D

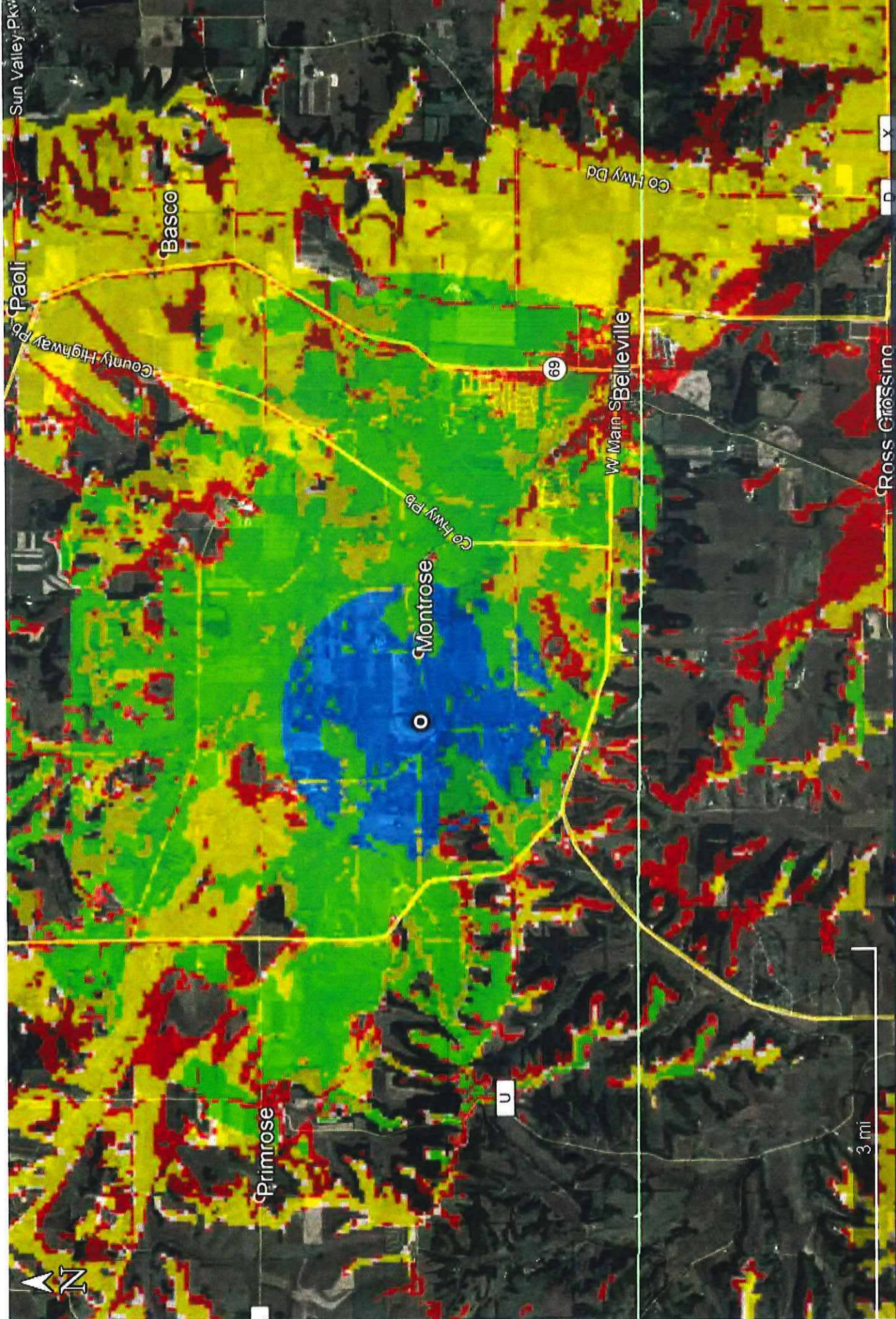
X



Antenna: 15.15 dBi Omni
 Alpha Rad Center (ft): 165
 Azimuth (Deg): 0
 ERP per RS (W): 2.0

Site Name: Dane County, WI
 Latitude: 42°52'3.36"N
 Longitude: 89°36'7.20"W

Existing 850 MHz
 Coverage – SBA



Antenna: 15.15 dBi Omni
 Alpha Rad Center (ft): 225
 Azimuth (Deg): 0
 ERP per RS (W): 2.0

Site Name: Dane County, WI
 Latitude: 42°52'57.63"N
 Longitude: 89°35'16.45"W

Proposed 850 MHz
 Coverage – Applicant

Dayton

X

Ross Crossing

3 mi

U

69

W Main Belleville

Co Hwy Dd

Co Hwy Bb

Montrose

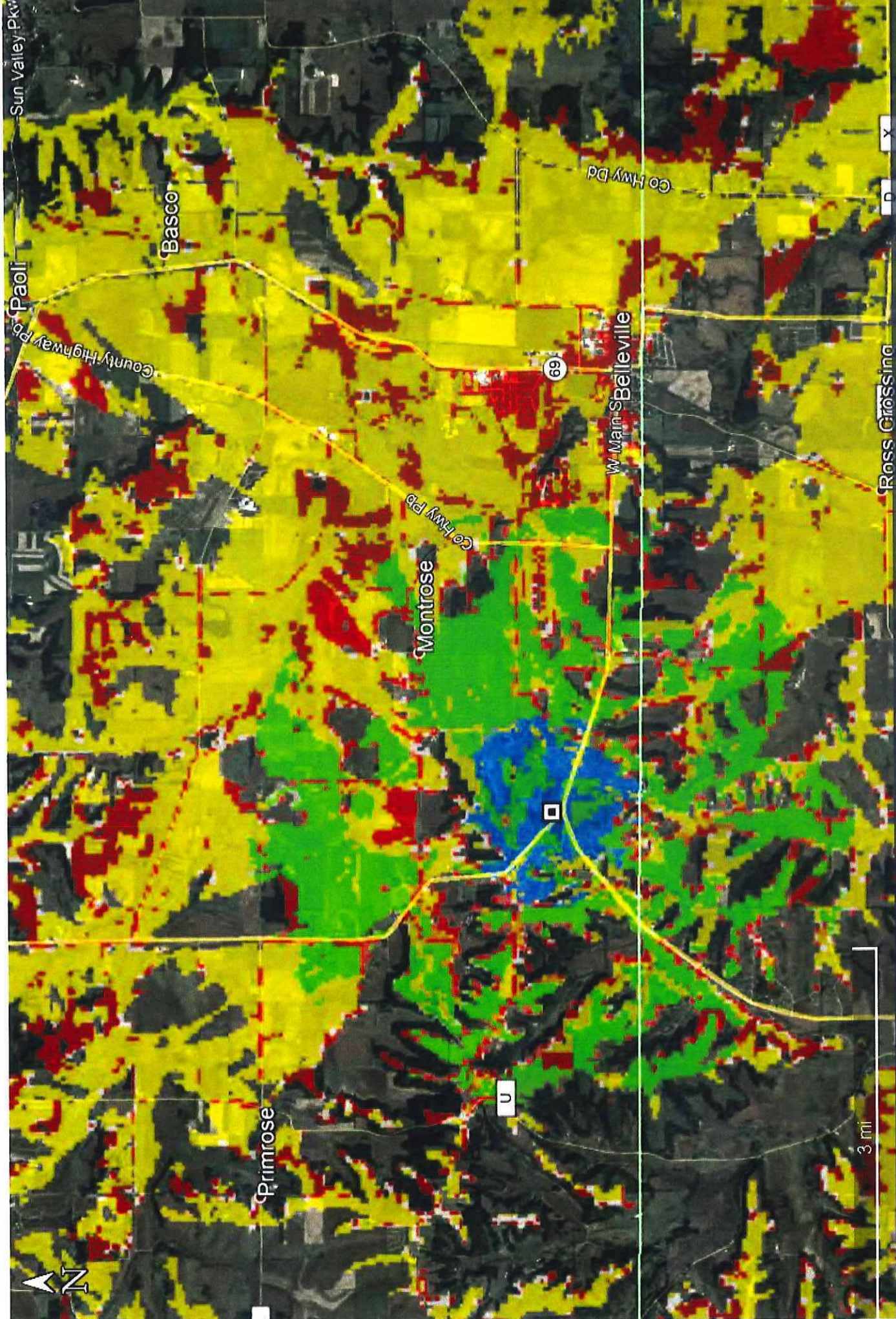
Basco

Primrose

Sun Valley Pkw

County Highway Paoli

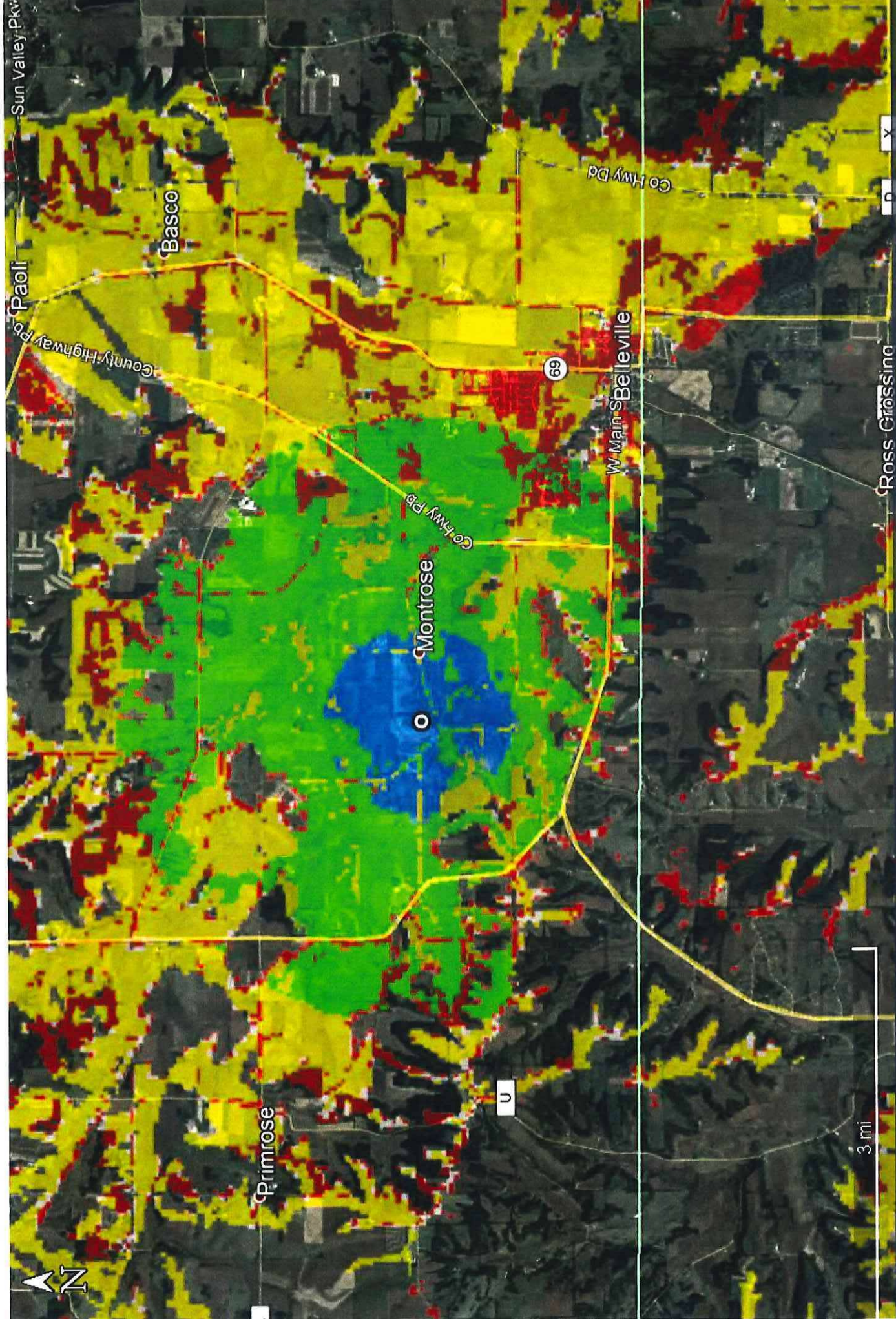




Antenna: 17.15 dBi Omni
 Alpha Rad Center (ft): 165
 Azimuth (Deg): 0
 ERP per RS (W): 4.7

Site Name: Dane County, WI
 Latitude: 42°52'3.36"N
 Longitude: 89°36'7.20"W

Existing 1900 MHz
 Coverage - SBA



Antenna: 17.15 dBi Omni
 Alpha Rad Center (ft): 225
 Azimuth (Deg): 0
 ERP per RS (W): 4.7

Site Name: Dane County, WI
 Latitude: 42°52'57.63"N
 Longitude: 89°35'16.45"W

**Proposed 1900 MHz
 Coverage – Applicant**

3 mi



Sun Valley Pkwy

Paoli

Basco

Co Hwy Dd

W Main Belleville

69

Co Hwy Pb

Montrose

Primrose

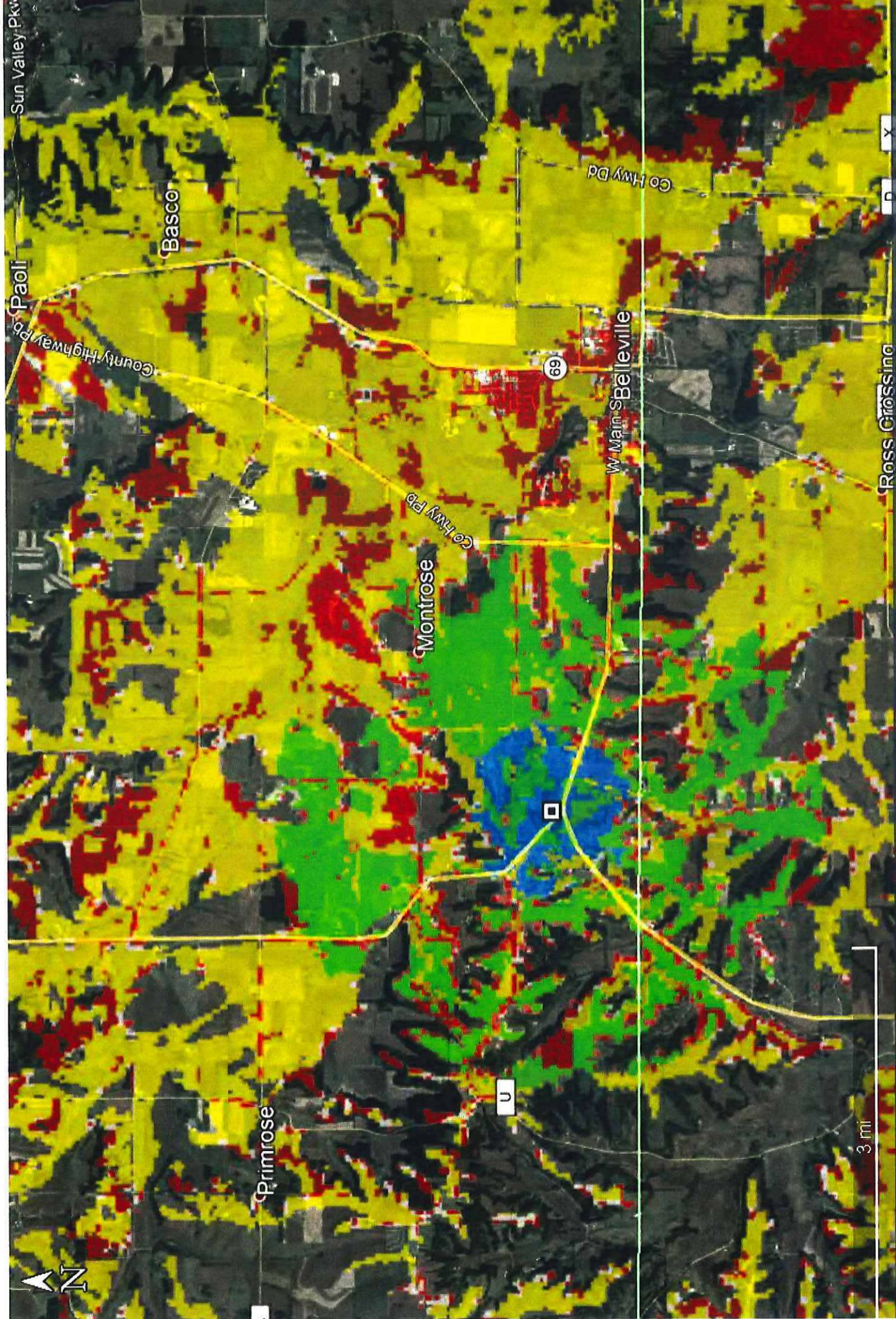
U

Ross Crossing

Dayton

D

X



Antenna: 17.15 dBi Omni
 Alpha Rad Center (ft): 165
 Azimuth (Deg): 0
 ERP per RS (W): 4.7

Site Name: Dane County, WI
 Latitude: 42°52'3.36"N
 Longitude: 89°36'7.20"W

Existing 2100 MHz
 Coverage - SBA

Dayton

3 mi

Sun Valley Pkwy

County Highway Paoli

Basco

County Highway Montrose

County Highway Belleville

County Highway Ross Crossing

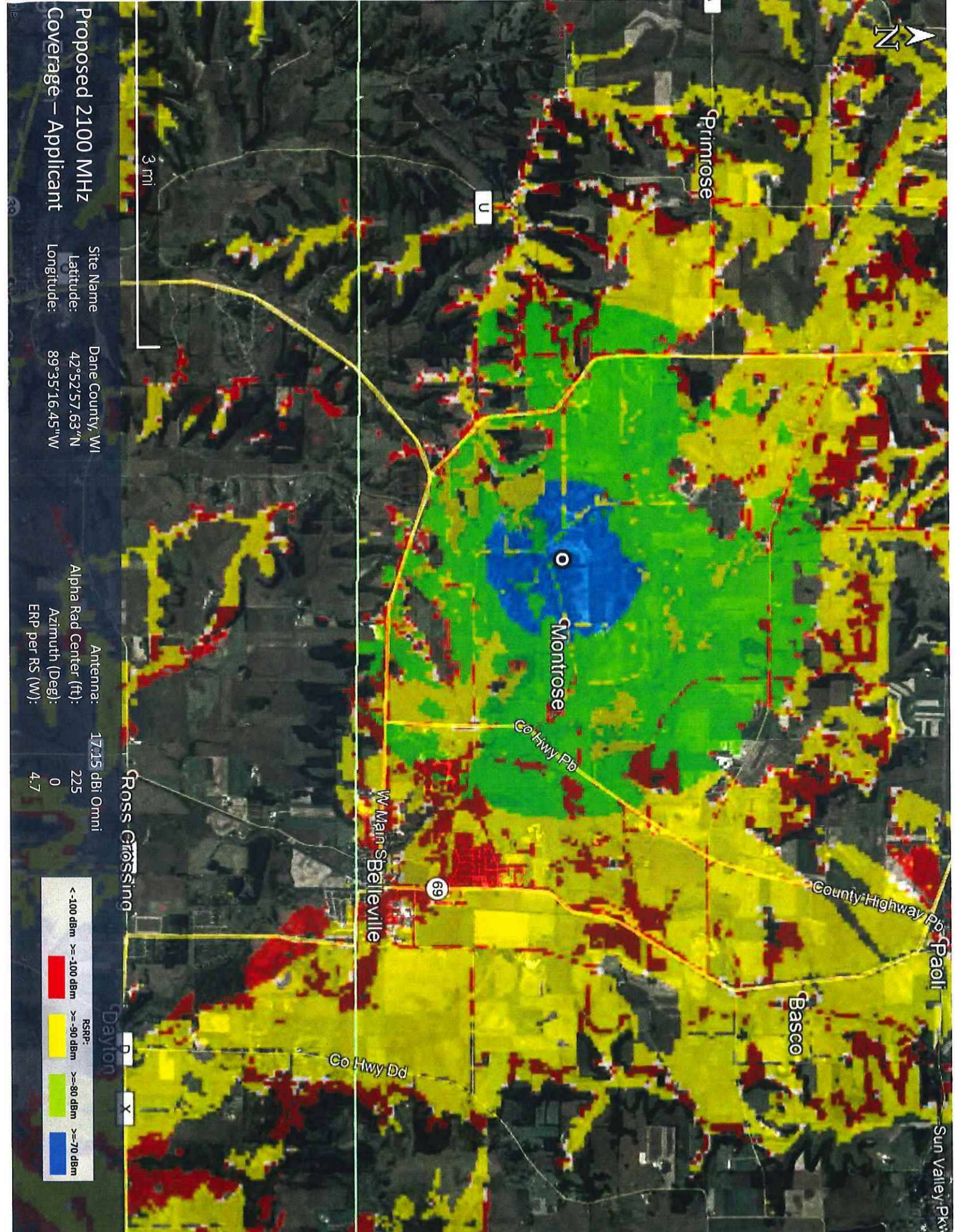
69

U

D

X





3 mi

Proposed 2100 MHz
Coverage – Applicant

Site Name: Dane County, WI
 Latitude: 42°52'57.63"N
 Longitude: 89°35'16.45"W

Antenna: 17.15 dBi Omni
 Alpha Rad Center (ft): 225
 Azimuth (Deg): 0
 ERP per RS (W): 4.7

RSRP:

<-100 dbm	>=-100 dbm
>=-90 dbm	>=-80 dbm
>=-70 dbm	

Ross Crossing

D

X

W Main St Belleville

69

Co Hwy Dd

Co Hwy Pb

Montrose

Primrose

Basco

County Highway Pb Paoli

Sun Valley Pk