

**Community of License Coverage****Introduction**

Fitzgerald and Hawras, Partnership desires to show coverage of its community of license South Waverly, Pa, with a supplemental showing since the standard model does not show adequate coverage of the community of license.

**Discussion**

Using the standard FCC model, the predicted 70 dBu F(50/50) contour does not cover the community of license as required by 47 C.F.R. Section 73.315(a). However, use of an alternate propagation method is warranted since the terrain between the transmitter site and the community of license departs widely from the assumed 124m average terrain.

The following parameters were used in determining the Longley/Rice 70 dBu coverage for the community of license:

|                        |                        |
|------------------------|------------------------|
| Conductivity:          | 0.005                  |
| Dielectric Constant:   | 15                     |
| Refractivity:          | 311                    |
| Climate Zone:          | Continental Temperate  |
| Receiver Height:       | 9 m AGL                |
| Receiver Gain:         | 0                      |
| Time Variability:      | 50                     |
| Situation Variability: | 50                     |
| Terrain Database:      | USGS 30 Second Terrain |

Exhibit 28-A1 and A2 show the 100 to 103 degree radials that fall over the proposed community of license of South Waverly, Pa. Exhibit 28B shows the FCC standard F(50/50) 70dBu contour has an average distance of 20.35km based on these 4 radials. Using the Longley/Rice model, the same contours have an average distance of 28.57km which is an increase in distance of 40.4%. Thus, the area covered by the supplemental method is more than 10% greater than the standard contour prediction method.

Exhibit 28C shows both the FCC standard F(50,50) 70dBu contour and the Longley-Rice model 70dBu contour (first occurrence). The Longley-Rice coverage is also shown with gradient color shading.

As can be seen in Exhibit 28C, the 70dBu calculated contour using the Longley/Rice propagation model, provides more than adequate coverage for the community of license.

As can be seen in Exhibit 28D, 100% of the area and 100% of the population located inside the corporate boundary of South Waverly, Pa, is covered by the 70dbu Longley Rice (first occurrence) signal.

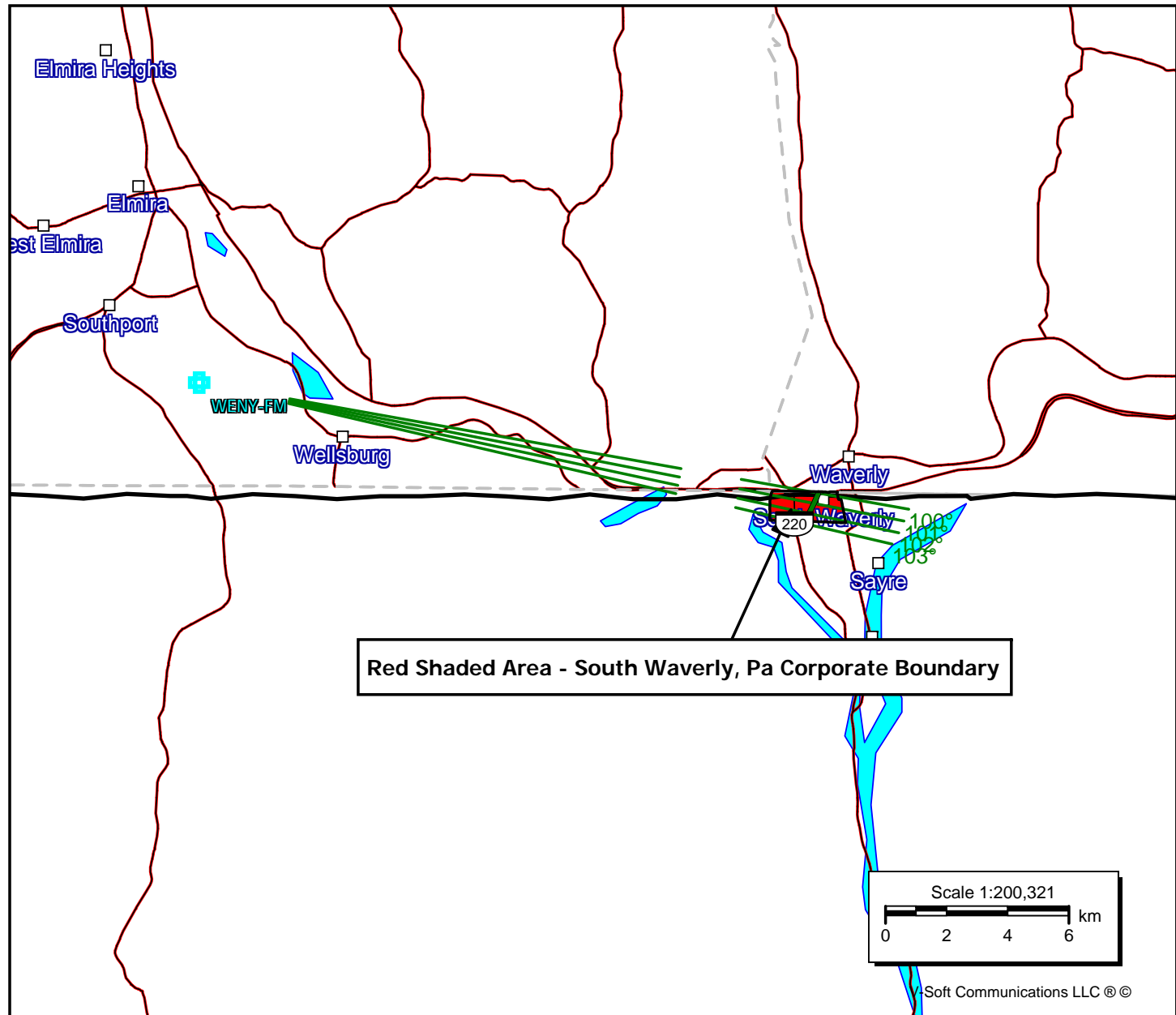
Exhibit 28E demonstrates the 60dbu(F50-50) contour extends beyond all parts of the corporate boundary of South Waverly, Pa. Exhibit 28F demonstrates the line of sight path that exists from the proposed transmit site and the proposed community of license of South Waverly, Pa. No part of the proposed community of license falls outside of a line of sight signal path.

### **Conclusion**

Based on the above exhibits the residents of South Waverly, Pa will be more than adequately served with a 70dBu signal strength contour. Fitzgerald and Hawras, Partnership respectfully request that the Commission permit this supplemental showing and grant its application.

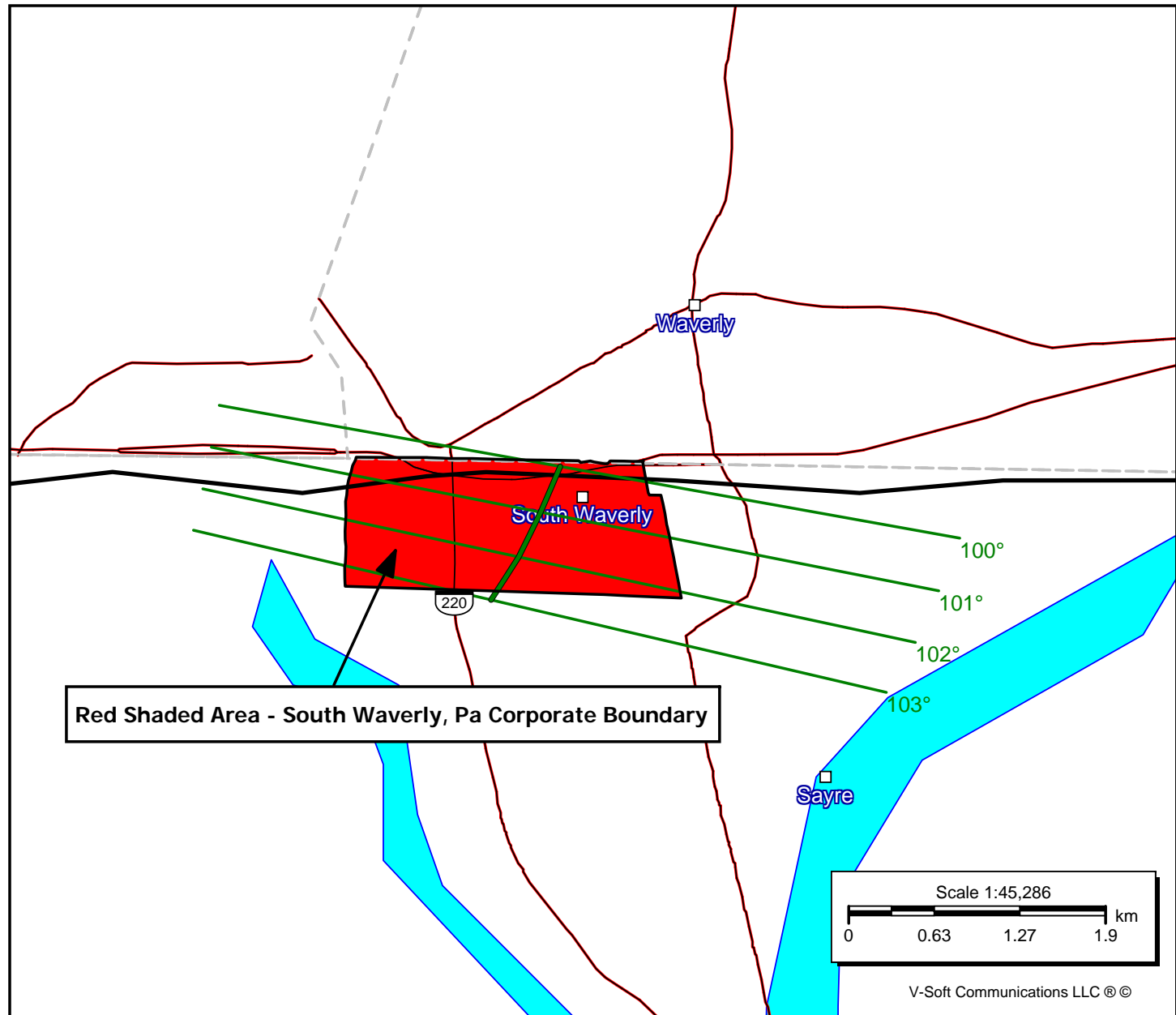
**Exhibit 28-A1**  
**Radials Extending over Community of License of South Waverly, Pa.**

WENY-FM  
BLH19971106KC  
Latitude: 42-01-55 N  
Longitude: 076-47-02 W  
ERP: 1.25 kW  
Channel: 224  
Frequency: 92.7 MHz  
AMSL Height: 620.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None



**Exhibit 28-A2**  
**Radials Extending over Community of License of South Waverly, Pa.**

WENY-FM  
BLH19971106KC  
Latitude: 42-01-55 N  
Longitude: 076-47-02 W  
ERP: 1.25 kW  
Channel: 224  
Frequency: 92.7 MHz  
AMSL Height: 620.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None



## Exhibit 28B - Distance to Contour Report

Distance to Contour Report

### Type of contour: FCC

Location Variability: 50.0 %

Time Variability: 50.0 %

# of Radials Calculated: 360

FCC Matching HAAT Calculation Used

Field Strength: 70.00 dBuV/m

Primary Terrain: FCC 30 Second US Database

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Transmitter Information:

Call Letters: WENY-FM

File Number: BLH19971106KC

Latitude: 42-01-55 N

Longitude: 076-47-02 W

ERP: 1.25 kW

Channel: 224

Frequency: 92.7 MHz

AMSL Height: 620.0 m

Elevation: 538.0 m

Horiz. Antenna Pattern: Omni

Vert. Elevation Pattern: No

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| Azimuth (deg) | Distance (km) | HAAT (m) |
|---------------|---------------|----------|
| -----         | -----         | -----    |
| 100.0         | 20.56         | 351.1    |
| 101.0         | 20.42         | 348.1    |
| 102.0         | 20.28         | 344.7    |
| 103.0         | 20.14         | 340.0    |

Average Contour Distance: 20.35km

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Distance to Contour Report

**Type of contour: Signal Calculated Longley-Rice**

# of Radials Calculated: 360

Using the first occurrence method at 70.0dBu

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Transmitter Information:

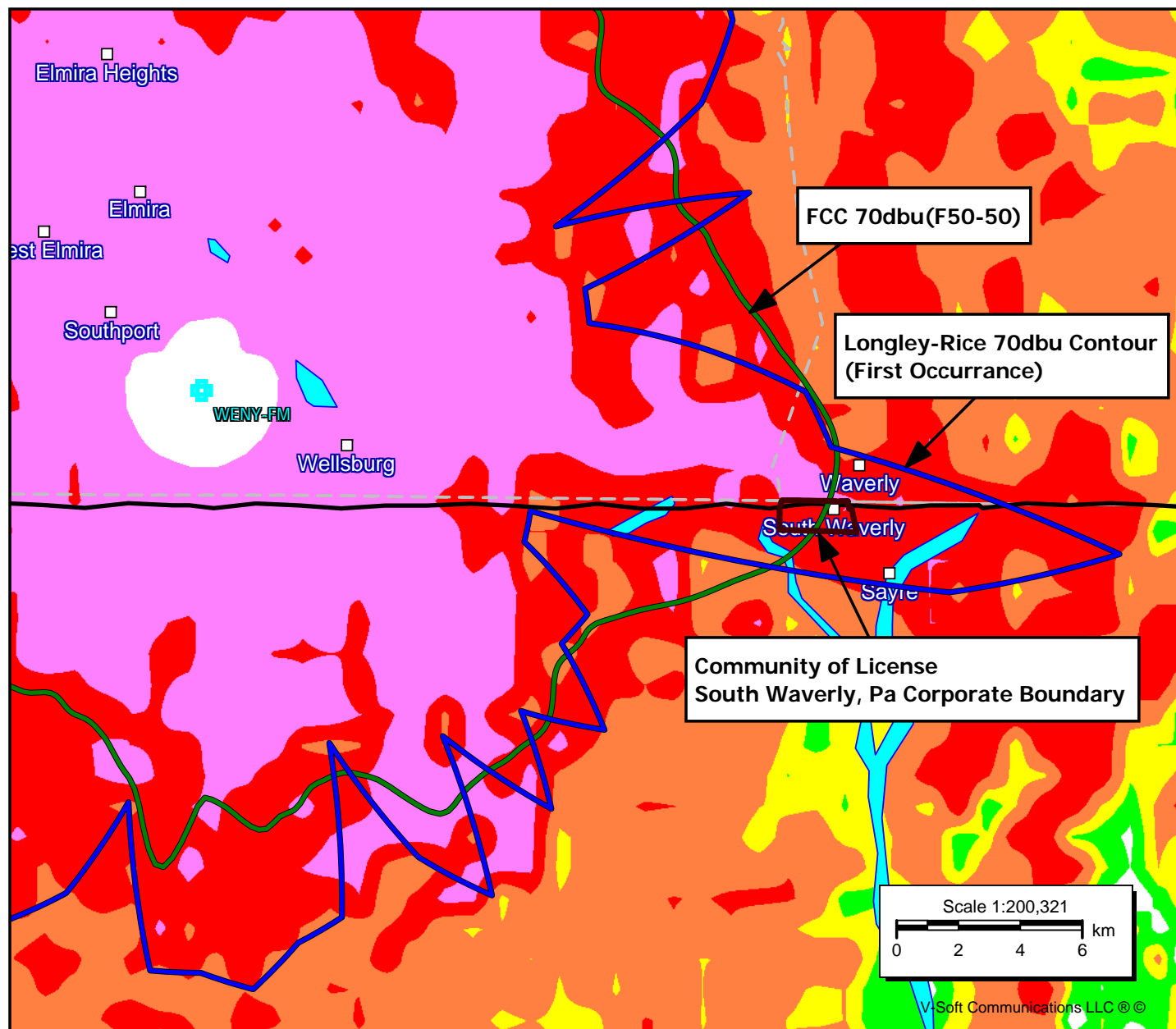
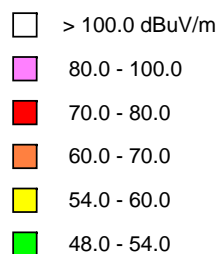
Call Letters: WENY-FM  
File Number: BLH19971106KC  
Latitude: 42-01-55 N  
Longitude: 076-47-02 W  
ERP: 1.25 kW  
Channel: 224  
Frequency: 92.7 MHz  
AMSL Height: 620.0 m  
Elevation: 538.0 m  
Horiz. Antenna Pattern: Omni  
Vert. Elevation Pattern: No  
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| Azimuth (deg) | Distance (km) | HAAT (m) |
|---------------|---------------|----------|
| -----         | -----         | -----    |
| 100.0         | 30.10         | 351.1    |
| 101.0         | 29.08         | 348.1    |
| 102.0         | 28.06         | 344.7    |
| 103.0         | 27.04         | 340.0    |

Average Contour Distance: 28.56km

# Exhibit 28-C Radials Extending over Community of License of South Waverly, Pa.

WENY-FM  
BLH19971106KC  
Latitude: 42-01-55 N  
Longitude: 076-47-02 W  
ERP: 1.25 kW  
Channel: 224  
Frequency: 92.7 MHz  
AMSL Height: 620.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: Longley-Rice  
Climate: Cont temperate  
Conductivity: 0.0050  
Dielec Const: 15.0  
Refractivity: 311.0  
Receiver Ht AG: 9.0 m  
Receiver Gain: 0 dB  
Time Variability: 50.0%  
Sit. Variability: 50.0%  
ITM Mode: Broadcast



Overlap Population Report  
WENY-FM (224) / South Waverly, PA

Overlap Area Type: Intersection

Areas Included:

WENY-FM (224): Signal (F): 70.0 dBu

PGON: South Waverly, PA

Population Database: 2010 US Census (PL)

Total Population: 1,027

Housing Units: 439

Overlap Area: 2.29 sq. km

| Area Description              | Total Population | Total Area [sq. km] | Percent Population | Percent Area |
|-------------------------------|------------------|---------------------|--------------------|--------------|
| WENY-FM (224): Signal (F): 70 | 94,126           | 1,055               | 1.1 %              | 0.2 %        |
| PGON: South Waverly, PA       | 1,027            | 2.29                | 100.0 %            | 100.0 %      |

WENY-FM

BLH19971106KC

Latitude: 42-01-55 N

Longitude: 076-47-02 W

ERP: 1.25 kW

Channel: 224

Frequency: 92.7 MHz

AMSL Height: 620.0 m

Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model: Longley-Rice

Climate: Cont temperate

Conductivity: 0.0050

Dielec Const: 15.0

Refractivity: 311.0

Receiver Ht AG: 9.0 m

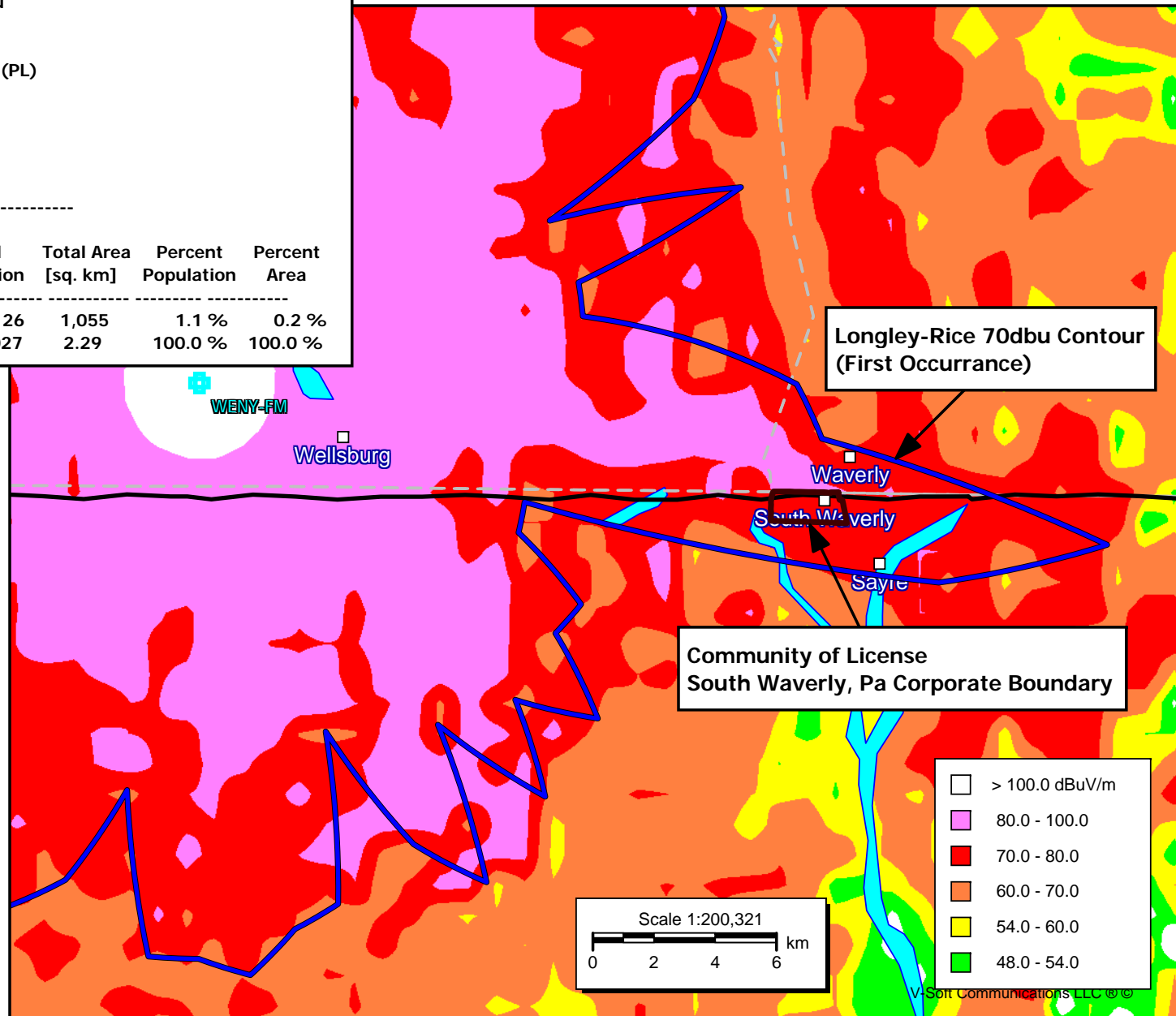
Receiver Gain: 0 dB

Time Variability: 50.0%

Sit. Variability: 50.0%

ITM Mode: Broadcast

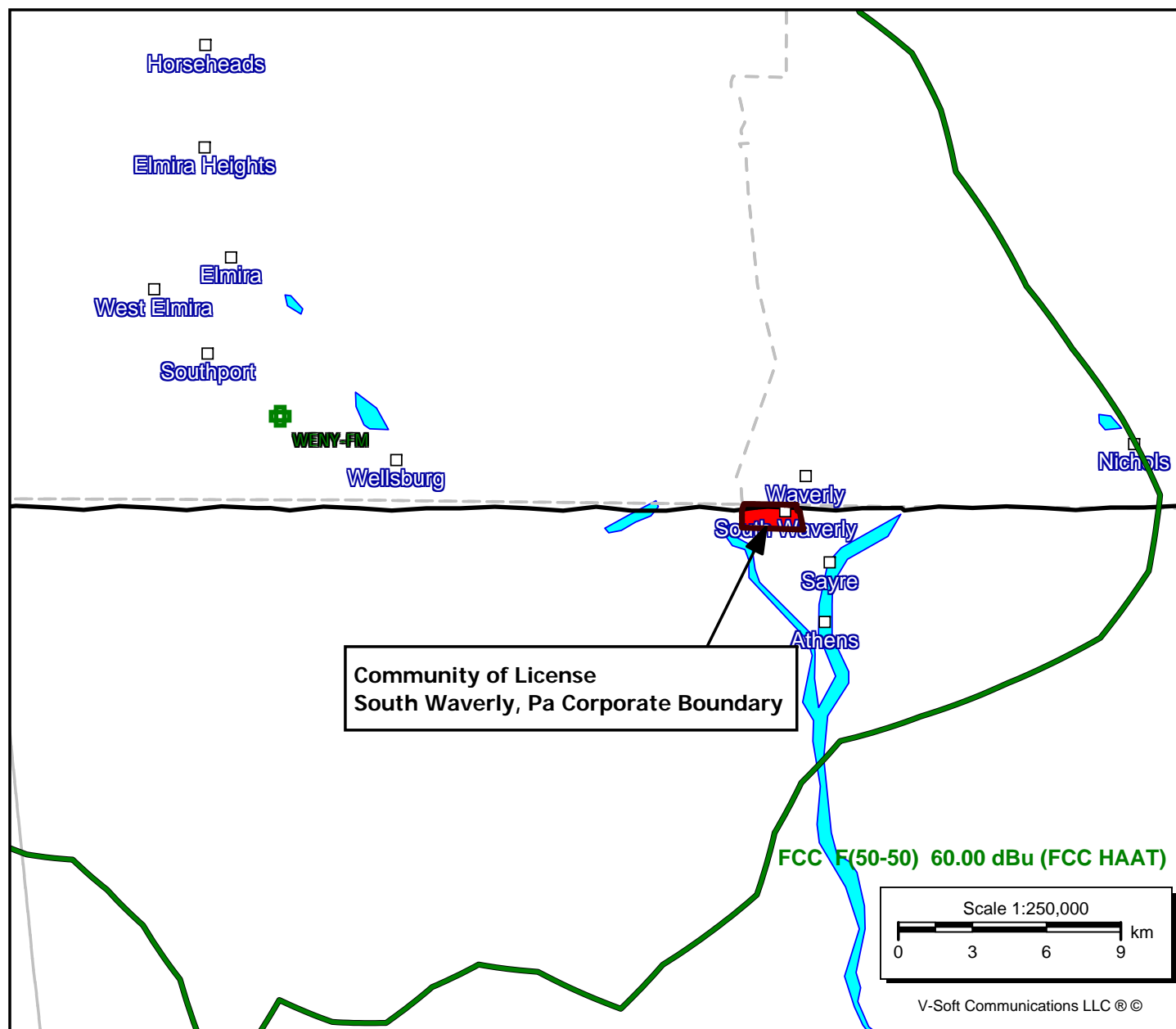
Exhibit 28D - Overlap Study of Longley-Rice 70dbu Signal and  
Community of License of South Waverly, Pa.





**Exhibit 28E - Proposed Community of License  
and 60dbu(F50-50) Contour**

WENY-FM  
BLH19971106KC  
Latitude: 42-01-55 N  
Longitude: 076-47-02 W  
ERP: 1.25 kW  
Channel: 224  
Frequency: 92.7 MHz  
AMSL Height: 620.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None



**Exhibit 28-F**  
**Line of Sight to Community of License**

Line of Sight



WENY-FM  
BLH19971106KC  
Latitude: 42-01-55 N  
Longitude: 076-47-02 W  
ERP: 1.25 kW  
Channel: 224  
Frequency: 92.7 MHz  
AMSL Height: 620.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: Line of Sight  
Receiver Ht AG: 2.1 m  
Earth's curvature: 1.3

