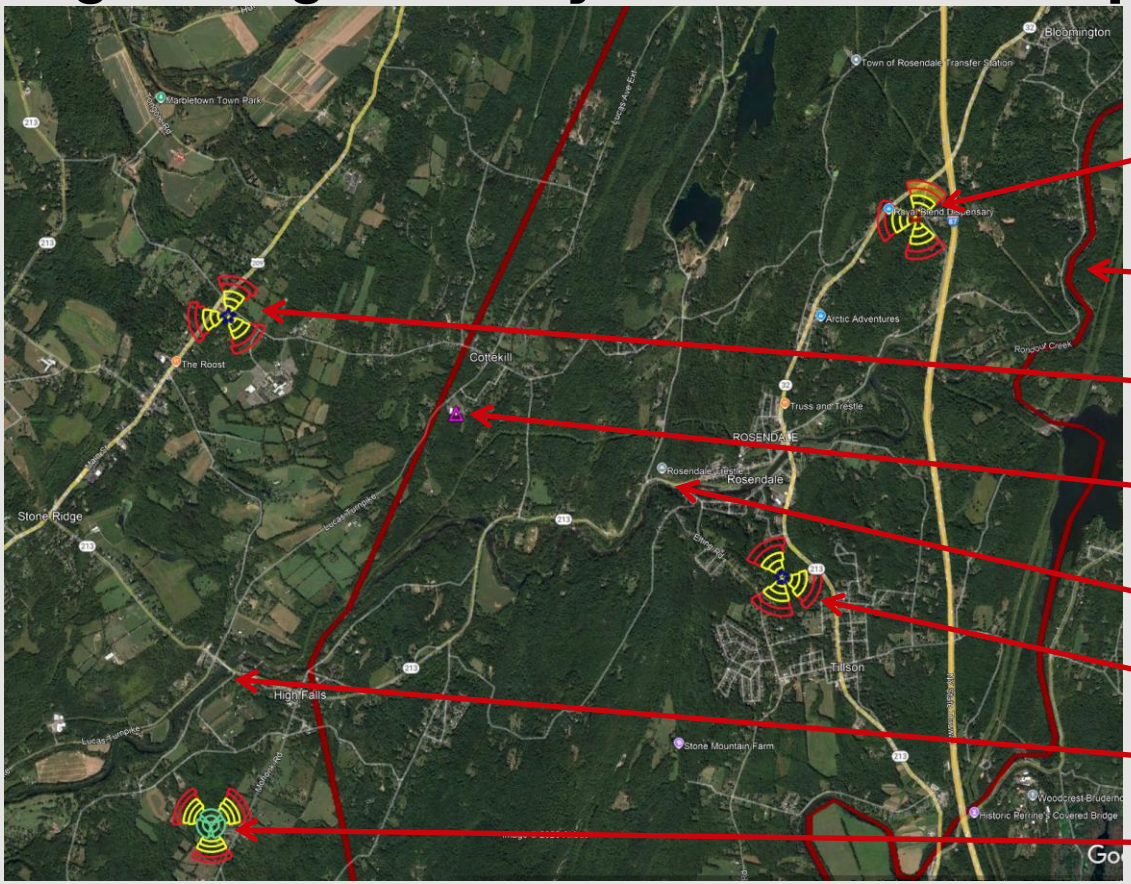
Exhibit 5

Verizon Engineering Necessity Case (Lucas Turnpike)

Verizon Wireless Communications Facility

Engineering Necessity Case – "Lucas Turnpike"



Existing Kingston South Site

Town of Esopus

Existing Stone Ridge Site

Proposed Lucas Turnpike Site

Town of Rosendale

Existing Rosendale Site

Town of Marbletown

Existing High Falls Site

Prepared by: Brendan Hennessy, RF Engineer III, Verizon Wireless

Project: The project is the installation and operation of a new tower co-located wireless telecommunications site in the Town of Rosendale (the "Project Facility").

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April 15, 2025

Introduction

The purpose of this subsequent analysis is to summarize and communicate the technical radio frequency (RF) information used in the justification of this new site.

Coverage and/or capacity deficiencies are the two main drivers that prompt the need for a new wireless communications facility/site. All sites provide a mixture of both capacity and coverage for the benefit of the end user.

Coverage can be defined as the existence of signal of usable strength and quality in an area, including but not limited to in-vehicles or in-buildings.

The need for improved coverage is identified by RF Engineers that are responsible for developing and maintaining the network. RF Engineers utilize both theoretical and empirical data sets (propagation maps and real world coverage measurements). Historically, coverage improvements have been the primary justification of new sites.

Capacity can be defined as the amount of traffic (voice and data) a given site can process before significant performance degradation occurs.

When traffic volume exceeds the capacity limits of a site serving a given area, network reliability and user experience degrades. Ultimately this prevents customers from making/receiving calls, applications cease functioning, internet connections time out and data speeds fail. This critical condition is more important than just a simple nuisance for some users. Degradation of network reliability and user experience can affect emergency responders and to persons in a real emergency situation can literally mean life or death.

**Note that, while Verizon Wireless provides sufficient evidence to establish the existence of a coverage gap and capacity need in this case, the FCC has confirmed that federal law does not require a provider to establish the existence of a coverage/capacity gap to establish the need for a site. There are several ways by which an applicant can establish site need. See Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment," FCC 18-133, 85 FR 51867, at ¶ 37 (October 15, 2018) (confirming that the test for establishing an effective prohibition is whether "a state or local legal requirement materially inhibits a provider's ability to engage in any of a variety of activities related to its provision of a covered service," and this test is met "not only when filling a coverage gap but also when densifying a wireless network, introducing new services or otherwise improving service capabilities") (emphasis added).*

Project Need Overview

The project area, located in the western portion of the Town of **Rosendale** is currently served by three sites. The project area is subject to significant terrain and or foliage challenges for RF (signal) propagation. This terrain and or foliage combined with long distance prevent effective propagation of Verizon's RF signals into this area compounding the capacity issue with areas of variable coverage creating significant gaps in coverage.

The first serving site is **Rosendale,** located in the Town of Rosendale, is approximately two miles southeast (of the project location) situated on an existing tower located off Davis Rd. While this site provides weak/variable coverage in portions of the project area, it does so from a terrain and or foliage + distance challenged position making the site not capable of efficiently or effectively providing adequate coverage or capacity.

The second serving site is **High Falls,** located in the Town of Marbletown, is approximately two and one half miles southwest (of the project location) on an existing water tower off Mohonk Rd. While this site provides weak/variable coverage in portions of the project area, it does so from a terrain and or foliage + distance challenged position making the site not capable of efficiently or effectively providing adequate coverage or capacity.

The third serving site is **Stone Ridge,** located in the Town of Marbletown, is approximately one and one half miles west (of the project location) situated on an existing tower off Cottekill Rd. While this site provides weak/variable coverage in portions of the project area, it does so from a terrain and or foliage + distance challenged position making the site not capable of efficiently or effectively providing adequate coverage or capacity.

Available (mid band AWS) carriers at these and other area sites are not capable of effectively serving/offloading the project area due to inherent propagation losses from distance, challenging terrain and in building coverage losses negatively impacting mid band coverage and capacity offload capabilities. There are other Verizon sites in this general area but due to distance and terrain they also do not provide any significant overlapping coverage in the area in question that could allow for increased capacity and improved coverage from other sources.

The primary objectives for this project are to increase capacity and provide and or improve coverage throughout the western portion of the Town of Rosendale and the eastern portion of the Town of Marbletown, more specifically portions of Cottekill, High Falls, and Stone Ridge including portions of Rt. 213, Lucas Ave Ext, Marcott Rd, Coxing Rd, Sawdust Ave, Cottekill Rd, Michael Dr, Bruceville Rd, Leggett Rd, as well as neighboring residential and commercial areas along and near these roads. In order to offload capacity from Rosendale, High Falls and Stone Ridge, a new dominant server must be created. This new dominant coverage will effectively offload the existing sites as well as provide improved coverage where significant gaps exist today.

Verizon proposes to attach the necessary antenna(s) to a new tower located at 1925 Lucas Turnpike, Cottekill, NY 12419, at an ACL (Antenna Centerline) of 120' with a top of antenna height of 124'.

Wireless LTE (Voice and Data) Growth

Wireless smart city solutions are being used to track available parking and minimize pollution and wasted time.

These same solutions are being used to track pedestrian and bike traffic to help planning and minimize accidents.

Smart, wireless connected lighting enables cities to control lighting remotely, saving energy and reducing energy costs by 20%.

4G technology is utilized to track and plan vehicle deliveries to minimize travel, maximize efficiency, and minimize carbon footprint.

4G technology is also used to monitor building power usage down to the circuit level remotely, preventing energy waste and supporting predictive maintenance on machines and equipment.

Wireless sensors placed in shipments are being used to track temperature-sensitive medications, equipment, and food. This is important for preventing the spread of food-borne diseases that kill 3,000 Americans each year.

Source: Verizon Innovation Center, February. 2018

Wireless is a critical component in schools and for today's students.

20,000 learning apps are available for iPads. 72% of iTunes top selling educational apps are designed for preschoolers and elementary students.

600+ school districts replaced text books with tablets in classrooms.

77% of parents think tablets are beneficial to kids.

74% of school administrators feel digital content increases student engagement.

70% of teens use cellphones to help with homework.

Source: CTIA's Infographics Today's Wireless Family, October, 2017

The average North American smartphone user will consume 48 GB of data per month in 2023, up from just 5.2 GB per month in 2016 and 7.1 GB per month in 2017 .[1]

Of American homes are wireless only.[2]

In North America, the average household has 13 connected devices with smartphones outnumbering tablets 6 to 1.[3]

1. Ericsson Mobility Report, November 2017
2. CDC's 2018 Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January-July, 2018
3. IHS Market Connected Device Market Monitor: Q1 2016 , June 7, 2016

A wireless network is like a highway system…

US, mobile data traffic was 1.3 Exabytes per month in 2016, the equivalent of 334 million DVDs each month or 3,687 million text messages each second **according to** Cisco VNI Mobile Forecast Highlights, 2016-2021,Feb 2017

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Wireless facilities and property values.

Cell service in and around the home has emerged as a critical factor in home-buying decisions.

National studies demonstrate that most home buyers value good cell service over many other factors including the proximity of schools when purchasing a home.

75% More than 75% of prospective home buyers said a good cellular connection was important to them.[1]

83% The same study showed that 83% of Millennials (those born between 1982 and 2004) said cell service was the most important fact in purchasing a home.

90% 90% of U.S. households use wireless service. Citizens need access to 911 and reverse 911 and wireless may be their only connection.[2]

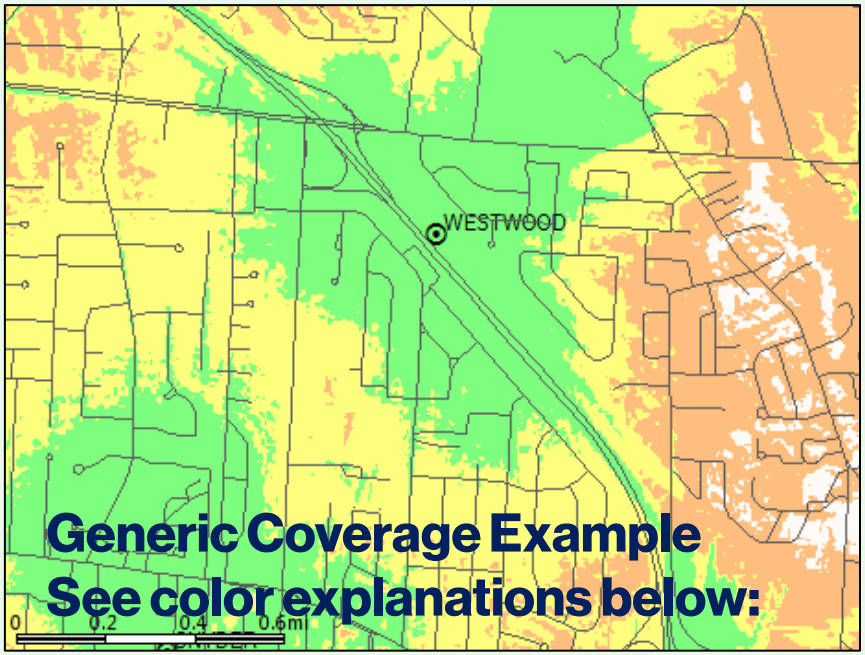
1. RootMetrics/Money, The Surprising Thing Home Buyers Care About More than Schools, June 2, 2015
2. CTIA, June 2015

With over 80% of 9-1-1 calls now coming from cell phones…[1]

240 million 911 calls are made annually. In many areas, 80% or more are from wireless devices. [1]

1. National Emergency Number Association, Enhancing 9-1-1 Operations With Automated Abandoned Callback & Location Accuracy (Motorola Solutions) (August 23, 2018)

Explanation of Wireless Coverage



Coverage is best shown via coverage maps. RF engineers use computer simulation tools that take into account terrain, vegetation, building types, and site specifics to model the RF environment. This model is used to simulate the real world network and assist engineers to evaluate the impact of a proposed site (along with industry experience and other tools).

Many Verizon Wireless sites provide 4G LTE at 700 MHz and 850MHz. As capacity requirements increase, higher frequency (and bandwidth) PCS (1900 MHz) and AWS (2100 MHz) carriers are added. In some mountaintop or long distance situations the mid band (higher frequency) AWS and PCS carriers are not fully effective due to excessive distance (path loss) from the user population.

Coverage provided by a given site is affected by the frequencies used. Lower frequencies propagate further distances, and are less attenuated by clutter than higher frequencies. To provide similar coverage levels at higher frequencies, a denser network of sites is required (network densification).

Note the affect of clutter on the predicted coverage footprint above

**Dark Green >/= -75dBm RSRP, typically serves dense urban areas as well as areas of substantial construction (colleges, hospitals, dense multi family etc.)
Green >/= -85dBm RSRP, typically serves suburban single family residential and light commercial buildings
Yellow >/= -95dBm RSRP, typically serves most rural/suburban-residential and in car applications
Orange >/= -105dBm RSRP, rural highway coverage, subject to variable conditions including fading and seasonality gaps
White = <-105dBm RSRP, variable to no reliable coverage gap area

More detailed, site-specific coverage slides are later in the presentation
*Signal strength requirements vary as dictated by specific market conditions
** Not displayed in example map, layer not used in all site justifications

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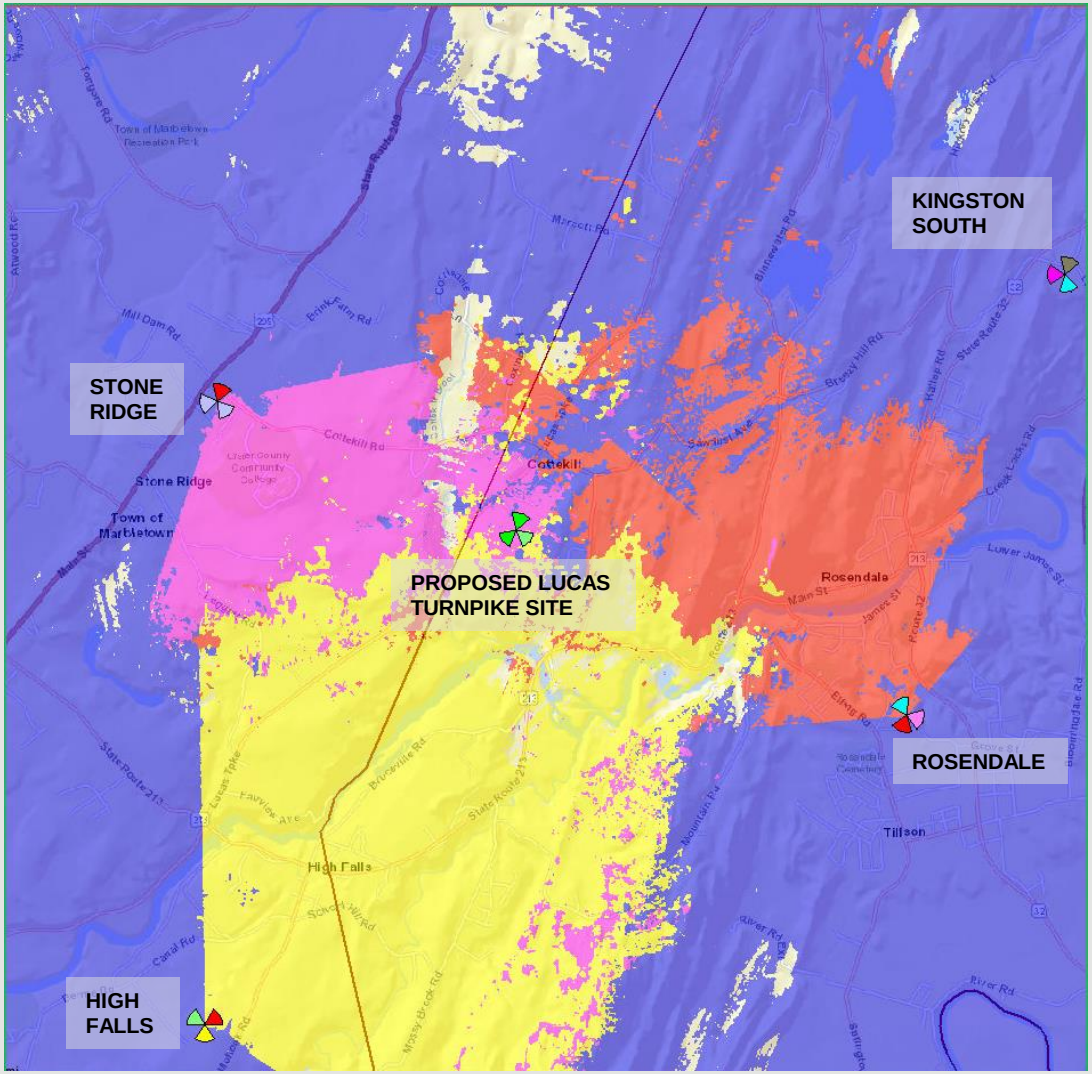
Existing 700MHz Best Server -105dBm RSRP

Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the area offloaded by the new sites dominant signal area.



- On Air Coverage
- Rosendale Gamma
- Highfalls Alpha
- Stone Ridge Beta

The map above represents coverage from existing sites, with the sites currently serving the area detailed in the legend above. Blue coverage is from other on air (Low Band) sites.

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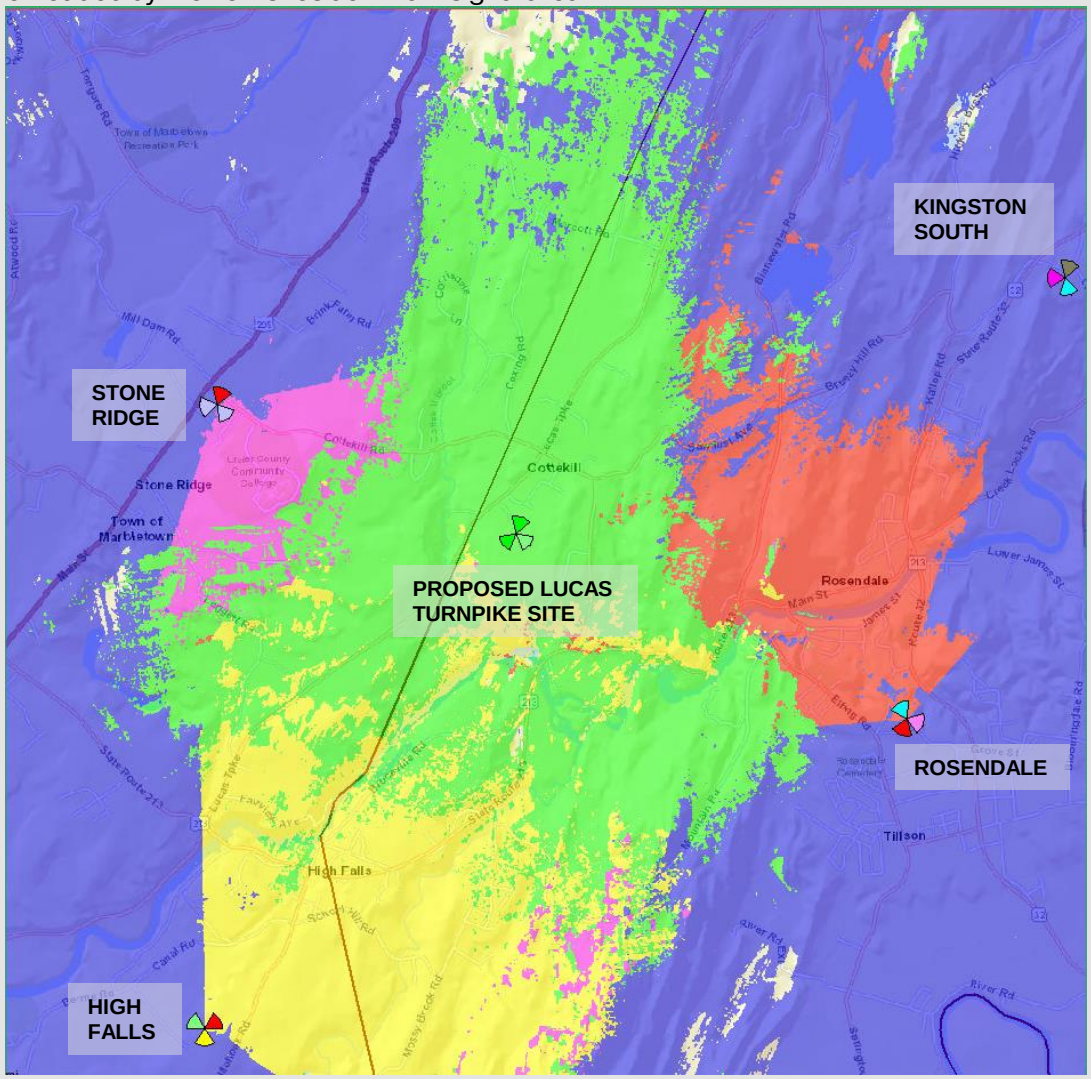
Proposed 700MHz Best Server -105dBm RSRP

Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the area offloaded by the new sites dominant signal area.



- On Air Coverage
- Rosendale Gamma
- Highfalls Alpha
- Stone Ridge Beta
- Proposed Coverage

The map above adds the footprint of the proposed **Lucas Turnpike** site in green. The green best server footprint provides improved coverage and capacity throughout the identified significant gap area. This will help to resolve the coverage and capacity issues impacting the existing sectors identified in the image above.

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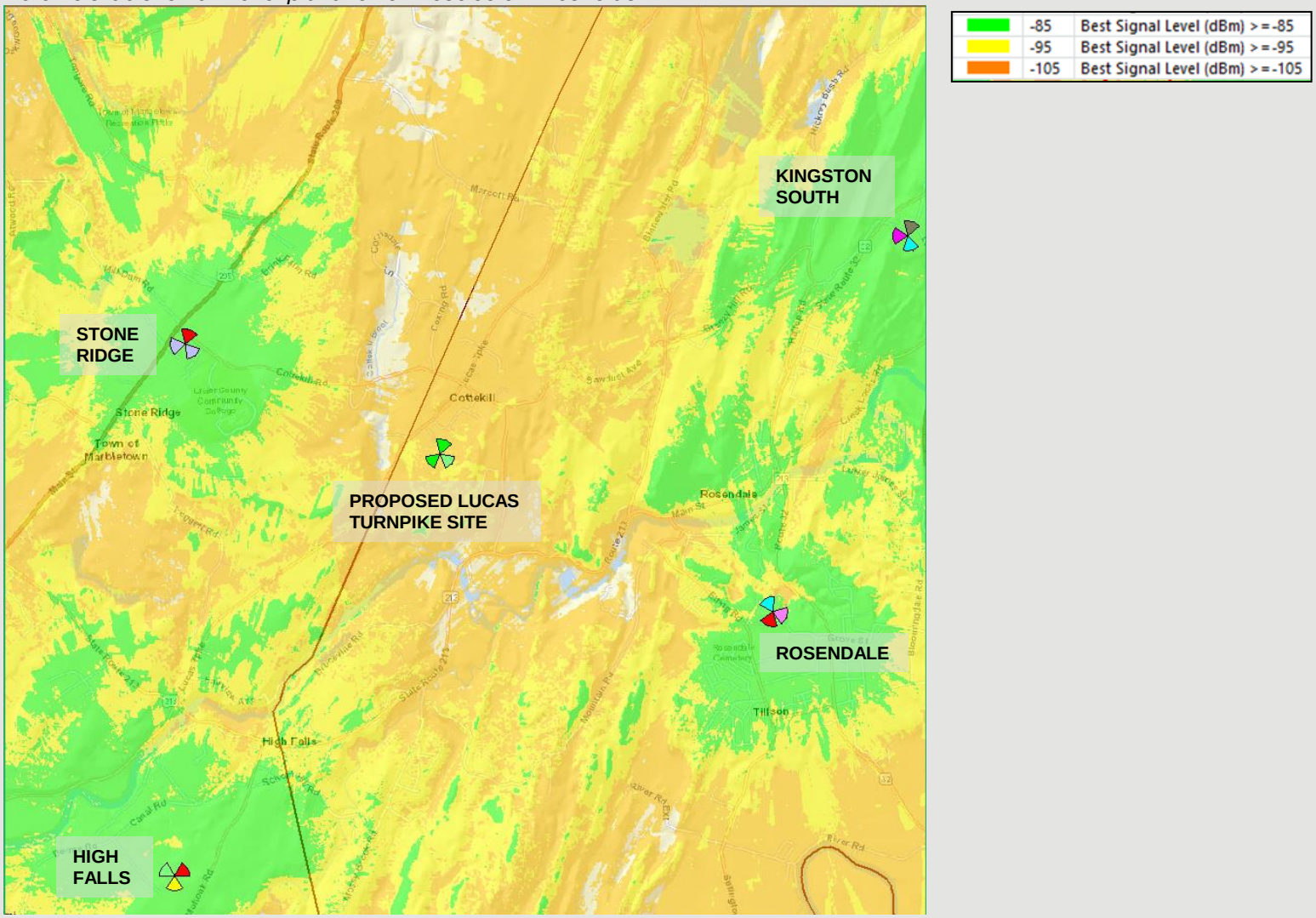
Existing 700MHz Coverage (signal strength)

This coverage map shows how weak the RF conditions are in portions of the Town of **Rosendale** and surrounding area.
Refer to slide 5 for further explanation of these color thresholds



The map above represents existing low band signal strength coverage from existing sites.

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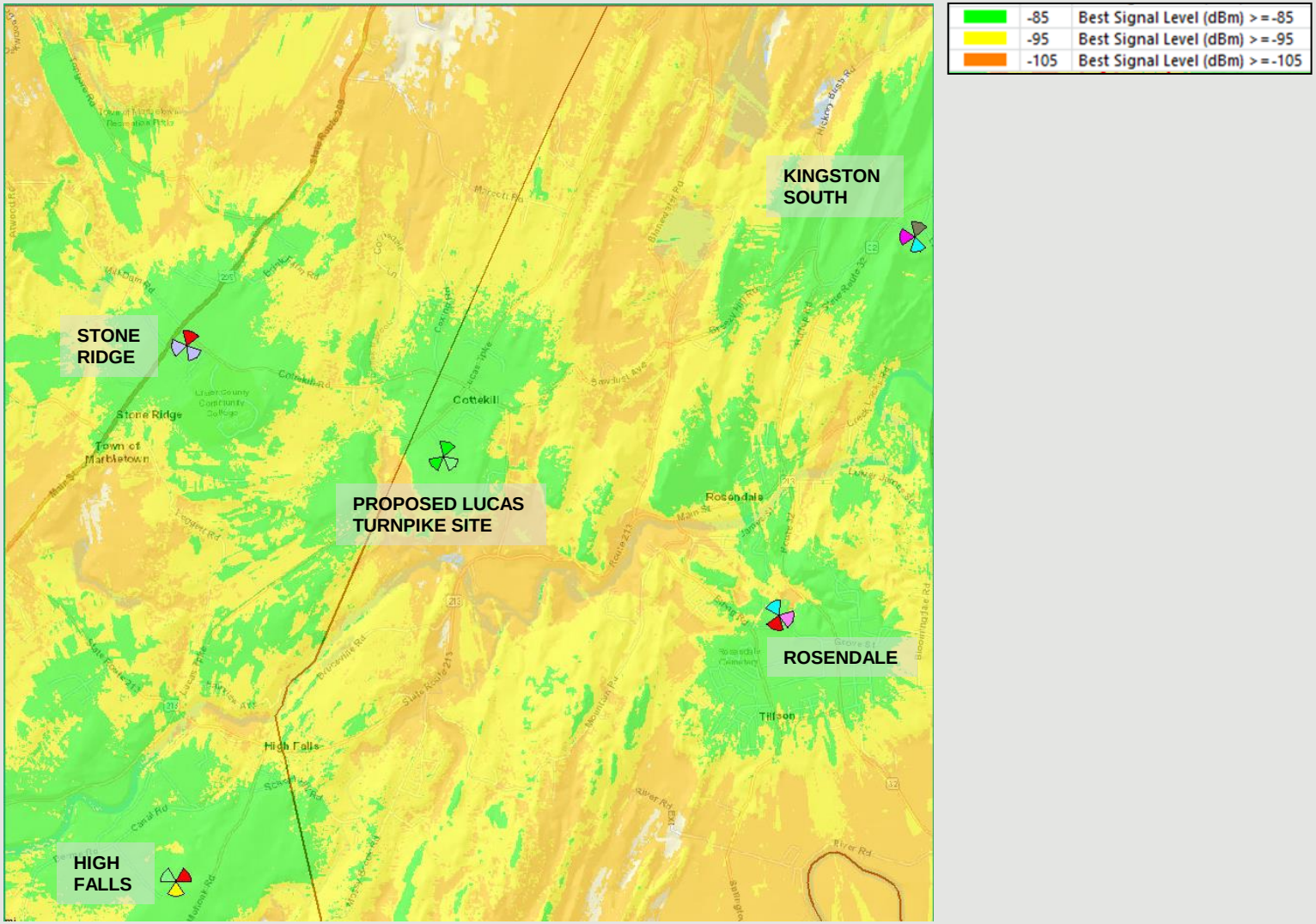
Proposed 700MHz Coverage (signal strength)

This coverage map shows how improved the RF conditions will be in portions of the Town of **Rosendale** and surrounding area.
Refer to slide 5 for further explanation of these color thresholds



The map above adds low band of the **Lucas Turnpike** site to the existing signal strength. The significantly improved signal strength corresponds to improved coverage and capacity throughout the identified significant gap areas. This will help to resolve the coverage and capacity issues impacting portions of the Town of Rosendale.

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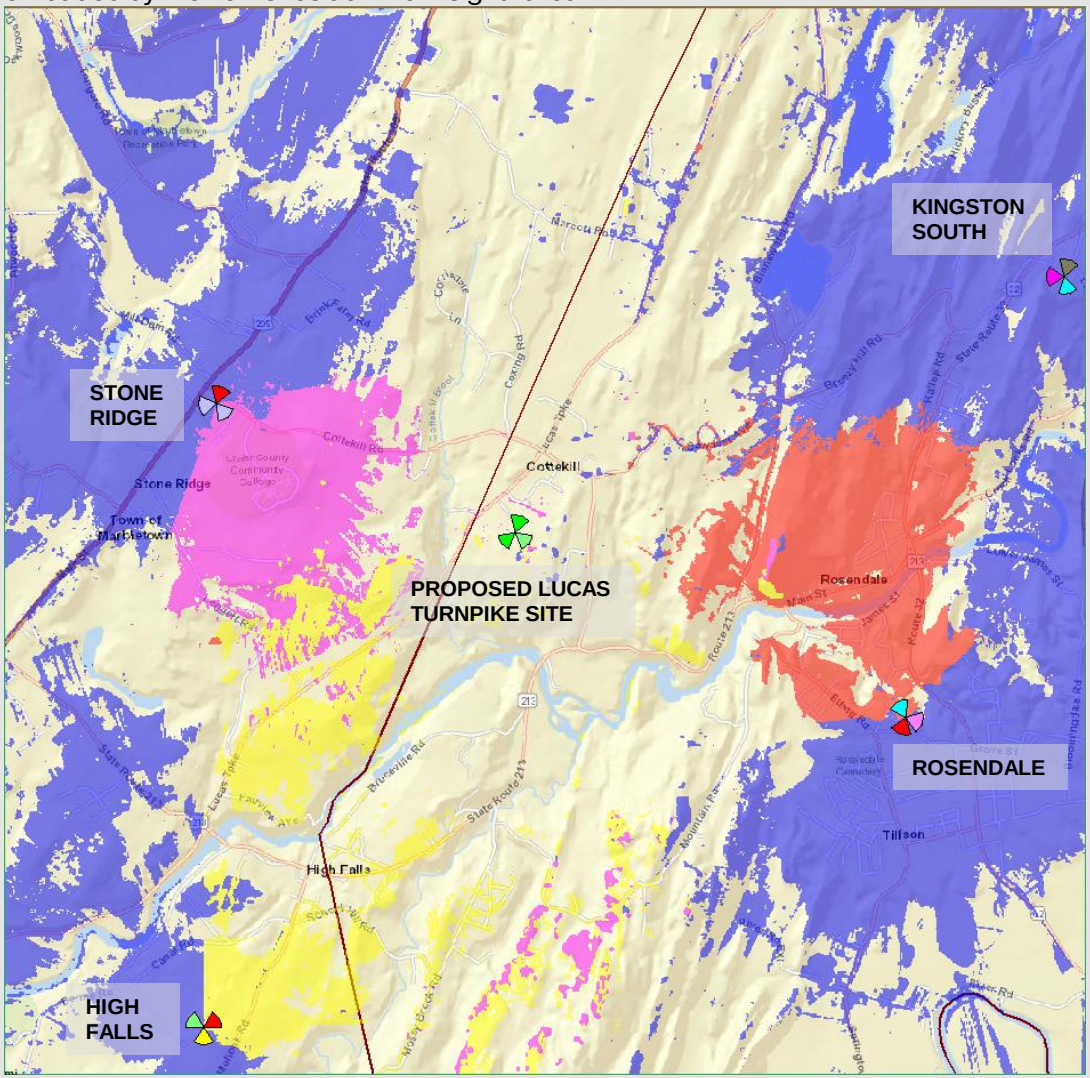
Existing 2100MHz Best Server -105dBm RSRP

Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the area offloaded by the new sites dominant signal area.



- On Air Coverage
- Rosendale Gamma
- Highfalls Alpha
- Stone Ridge Beta

The map above represents coverage from existing sites, with the sites in need of capacity offload detailed in the legend above. Blue coverage is from other on air (Mid Band) sites.

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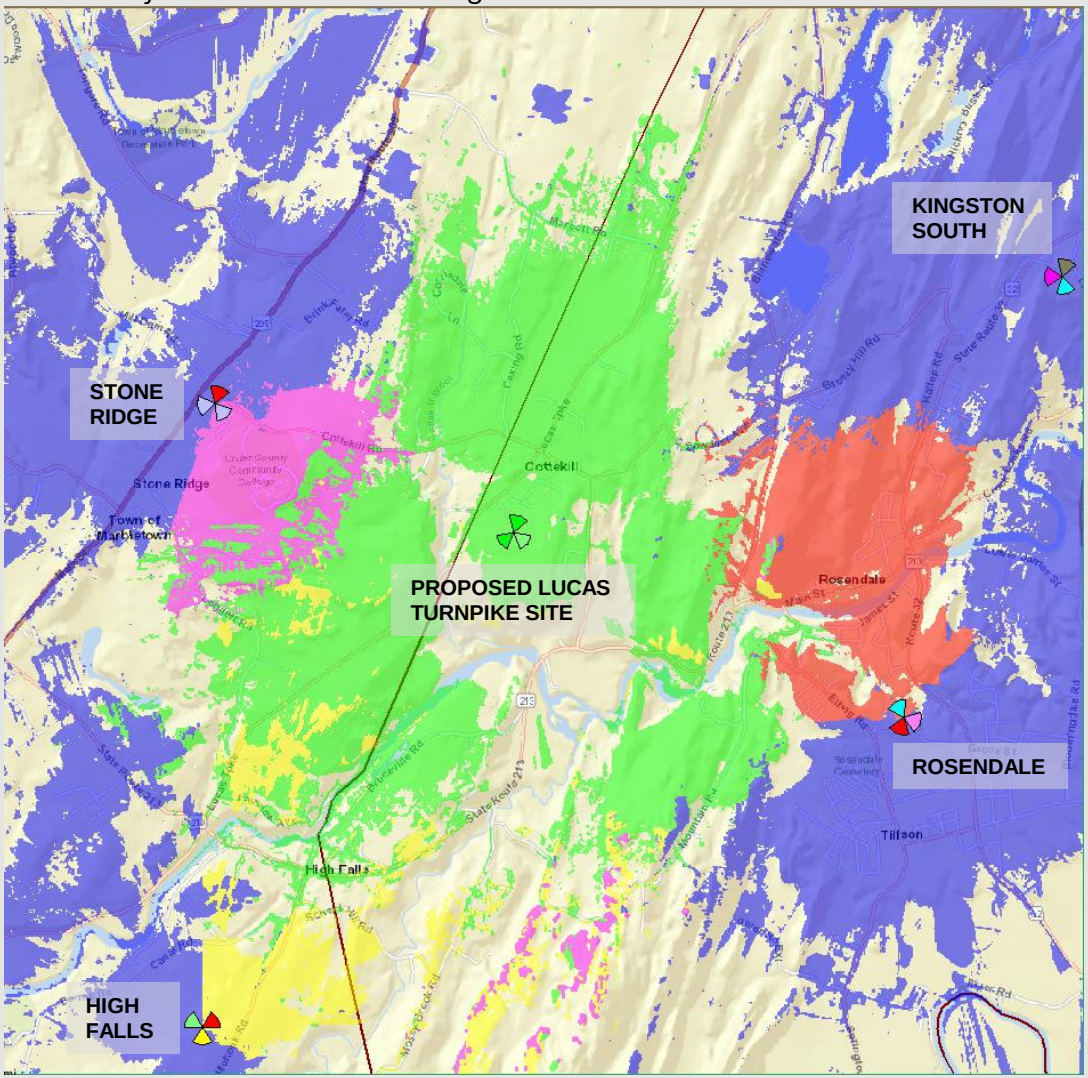
Proposed 2100MHz Best Server -105dBm RSRP

Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the area offloaded by the new sites dominant signal area.



- On Air Coverage
- Rosendale Gamma
- Highfalls Alpha
- Stone Ridge Beta
- Proposed Coverage

The map above adds the footprint of the proposed **Lucas Turnpike** site in green. The green best server footprint provides improved coverage and capacity throughout the identified significant gap area. This will help to resolve the coverage and capacity issues impacting the existing sectors identified in the image above.

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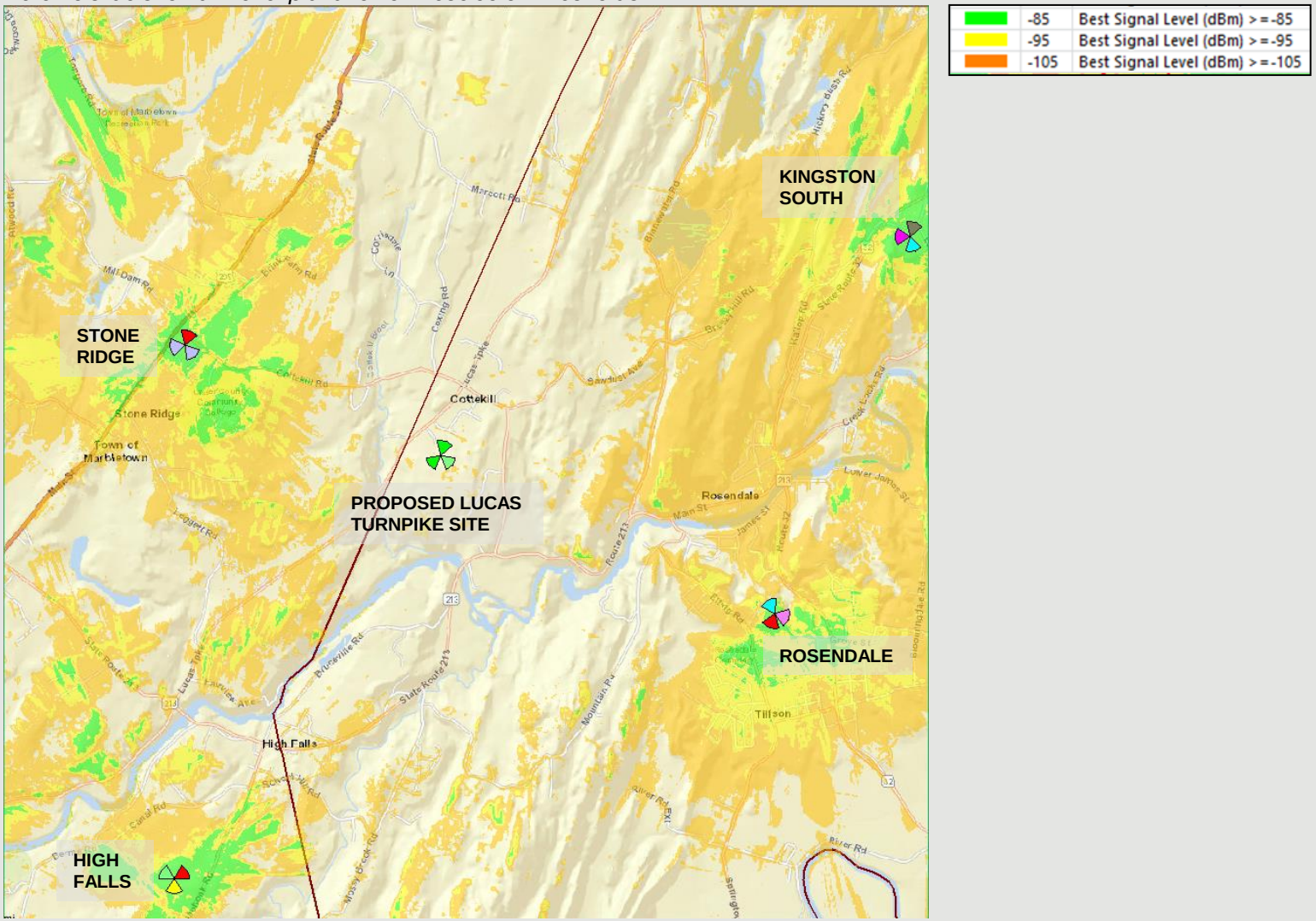
Existing 2100MHz Coverage (signal strength)

This coverage map shows how weak the RF conditions are in portions of the Town of **Rosendale** and surrounding area.
Refer to slide 5 for further explanation of these color thresholds



The map above represents mid band coverage from existing sites. This 2100MHz signal is very weak throughout the project area. Additional mid band network densification is required to resolve these conditions.

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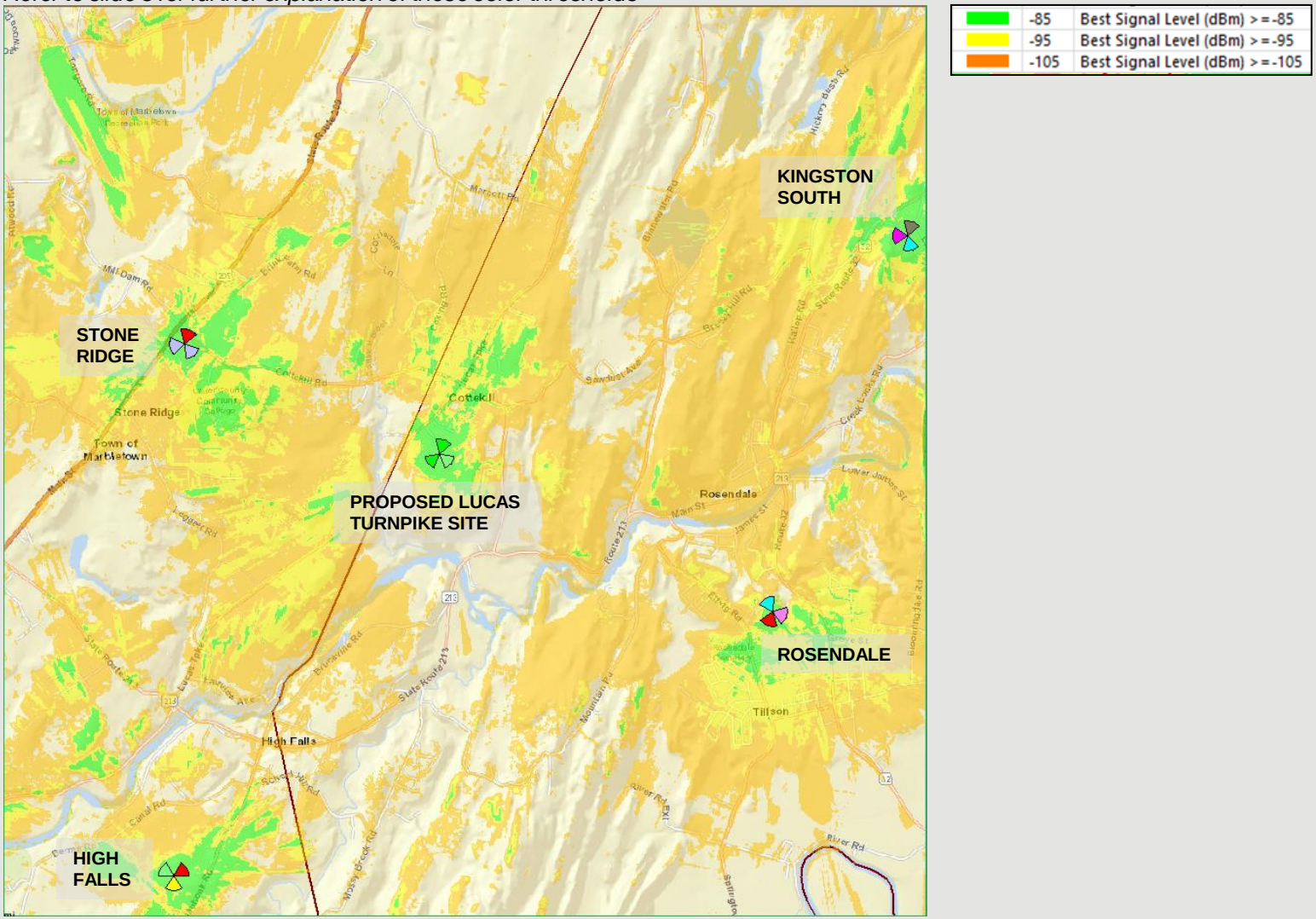
Proposed 2100MHz Coverage (signal strength)

This coverage map shows how improved the RF conditions will be in portions of the Town of **Rosendale** and surrounding area.
Refer to slide 5 for further explanation of these color thresholds



The map above adds mid band of the **Lucas Turnpike** site to the existing signal strength. The significantly improved signal strength corresponds to improved coverage and capacity throughout the identified significant gap areas. This will help to resolve the coverage and capacity issues impacting portions of the Town of Rosendale.

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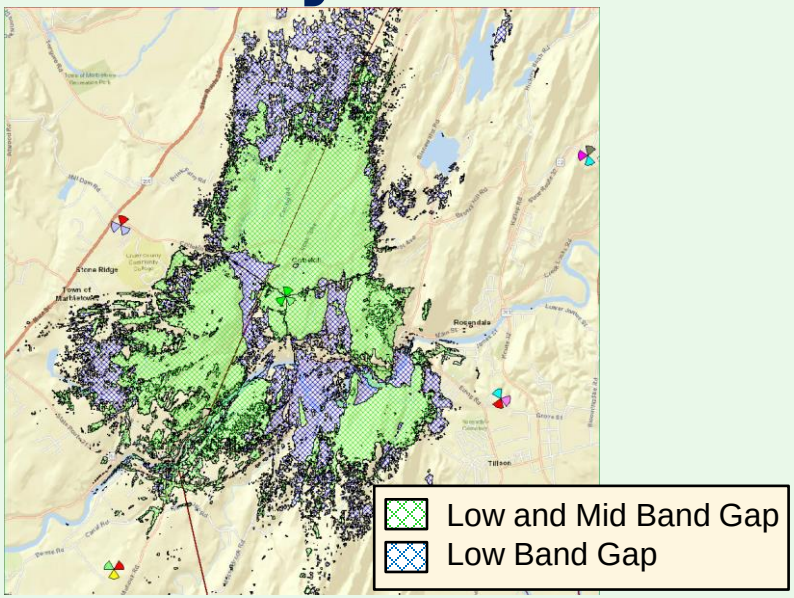
RF Justification Summary



The proposed site resolves the substantial and significant gaps in coverage and capacity impacting the Town of Rosendale. These gaps are shown above: The green shaded area represent the gaps in coverage and capacity that the proposed **Lucas Turnpike** site with 120' ACL will resolve.

The network was analyzed to determine whether there is sufficient **RF coverage and capacity** in the **Towns of Rosendale and Marbletown**. It was determined that there are significant gaps in adequate LTE service for Verizon Wireless in the representative 700 and 2100MHz frequency bands. In addition to the coverage deficiencies, Verizon Wireless' network does not have sufficient capacity (low band or mid band) to handle the existing and projected LTE voice and data traffic in the area near and neighboring the proposed facilities ("targeted service improvement area"). Based on the need for additional coverage and capacity while considering the topography and specific area requiring service, any further addition of capacity to distant existing sites does not remedy Verizon's significant gap in reliable service. Therefore, the proposed facilities are also needed to provide "**capacity relief**" to the existing nearby Verizon Wireless sites, allowing the proposed facilities and those neighboring sites to adequately serve the existing and projected capacity demand in this area.

With the existing network configuration there are significant gaps in service which restricts Verizon Wireless customers from originating, maintaining or receiving reliable calls and network access. It is our expert opinion that the proposed site will satisfy the coverage and capacity needs of Verizon Wireless and its subscribers in these portions of the **Towns of Rosendale and Marbletown** and this project area. The proposed location depicted herein satisfies the identified service gaps and is proposed at the minimum height necessary for adequate and reliable service.

Brendan Hennessy

Brendan Hennessy
Engineer III – RF Design
Verizon Wireless

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