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Review of

New Cingular Wireless PCS LLC D/B/A AT&T
First Amendment
to the 2003 AT&T Plan

presented to the

New Jersey Pinelands Commission
November 26, 2025

Prepared by

Bruce Eisenstein, Ph.D., P.E.

December 22, 2025

A handwritten signature in blue ink that reads 'Bruce A. Eisenstein'.

Bruce A. Eisenstein, Ph.D., P.E.

Introduction

In preparation for this report, we reviewed the following Federal Document:

***** The FCC Telecommunications Act of 1996**

We read and reviewed the package submitted on November 26, 2025 by Warren. O. Stillwell, Esq. Attorney for AT&T:

Application of New Cingular Wireless PCS LLC d/b/a AT&T fir First Amendment To the 2003 AT&T Plan

In addition , we reviewed the following Web Sites referenced in the 12/8/2025 email from Brad Lanute [PINELANDS]:

State of New Jersey Pinelands Commission:

- (1) **Planning for Wireless Communications Facilities
(specifically the 2003 Appendix B (Technical Consultants Review): At&T Siting Plan Amendment)**
<https://www.nj.gov/pinelands/landuse/current/wireless/>
- (2) **The Comprehensive Management Plan**
<https://www.nj.gov/pinelands/cmp/>
- (3) **Pinelands Property Maps**
<https://www.nj.gov/pinelands/home/maps/interactivemap/>
- (4) **Pinelands Property Map (Chatsworth area)**
<https://www.nj.gov/pinelands/home/maps/maps/documents/archD.pdf>
- (5) **Data**
<https://www.nj.gov/pinelands/home/maps/datas/index.shtml>

Background

Cellular communication is enabled by allowing a handheld or mobile unit to communicate with an antenna site located near the base station at the center of a cell. Both the handheld and the base station must put out sufficient power so that they can “hear” each other. The handheld units are mobile, frequently in cars, and as the handheld crosses from one cell to another there must be a “handoff” or the call will be dropped creating an interruption in service. Consequently, sufficient power must be available traversing from cell to cell.

However, cell towers cannot emit too much power since the aim is to confine the signal to the rough borders of the cell. Consequently, the emissions from cell towers are generally low power and since the power from the cell tower degrades exponentially with distance from the tower site, the level of exposure for people on the ground is safe if the site is in full compliance with FCC standards. For that reason, when a cell site is to be constructed, it is required to produce a compliance report to show that the standards of the FCC have been met.

In addition, for the information of the Commission, propagation plots are required to show that the site is necessary and appropriate to satisfy the design standards of the applicant.

Analysis

The applicant is requesting a modification to their 2003 Siting Plan Amendment (Web Site 1 from above). This is to improve the AT&T coverage in the area of Chatsworth Village for both wireless users and First Responders under the Federal FirstNet Authority for which AT&T was awarded a contract to “build and manage the National Public Safety Broadcast Network. The Exhibits 2A through 2F provided by DBM Engineering P. C. in the application package serve to demonstrate justification of the proposal to add Site 400 in Chatsworth and eliminate the need for AT&T to use the prior approved Site 41 to the AT&T Comprehensive Plan for the State of New Jersey Pinelands.

Exhibit 2A “Existing AT&T Reliable Coverage” is a propagation plot showing wireless coverage at a power level of -95 dBm¹ around the area of Chatsworth Village. It shows that the Village has very little reliable coverage at present.

Exhibit 2B “AT&T Proposed Reliable Coverage” is a propagation plot including the proposed antenna site 400 showing wireless coverage at a power level of -95 dBm including the entire area of Chatsworth village.

Exhibit 2C “AT&T Reliable Coverage with Original Site #41” is a propagation plot not

¹ It should be noted that this power level is reasonable for design purposes and comports with numbers we have seen in other locations.

including the proposed antenna site 400 but with the prior approved Site #41 showing no improvement in wireless coverage for Chatsworth Village at a power level of -95 dBm.

Exhibit 2D “AT&T Reliable Coverage with “Chatsworth” raised to 219’ AGL” is a propagation plot showing wireless coverage at a power level of -95 dBm around the area of Chatsworth Village with the adjacent NJL03311 (called “Chatsworth”) raised to 219’ AGL and showing minimal improvement in reliable coverage at -95 dBm in Chatsworth Village.

Exhibit 2E AT&T Reliable Redundant Coverage with “Chatsworth” and adjacent site on-air and both raised to 219’ AGL” is a propagation plot showing wireless coverage at a power level of -95 dBm around the area of Chatsworth Village with both the adjacent NJL03311 (called “Chatsworth”) and the site to the left of NJL03311 on the map raised to 219’ AGL and still showing minimal improvement in reliable coverage at -95 dBm in Chatsworth Village.

Exhibit 2F “AT&T Reliable Coverage with “Chatsworth” raised to 219’ AGL and “Site 062” at 200’ AGL” is a propagation plot showing wireless coverage at a power level of -95 dBm around the area of Chatsworth Village with both the adjacent NJL03311 (called “Chatsworth”) site at 219’ AGL and the prior approved but unbuilt Site 062 if on air would again provide only minimal improvement in reliable coverage at -95 dBm in Chatsworth Village.

Conclusions

We agree that removing Site 41 from the Comprehensive Plan and replacing it with the Proposed Site 400 in Chatsworth Village would meet the requirements of reliable coverage at -95dBm in Chatsworth Village and the surrounding area. In addition, the requirement for AT&T to provide FirstNet service to First Responders in the area will be met.

The proposed Site 400 is to be located “in or near a Pinelands Village (Chatsworth)” but the actual site has not been specifically identified. When and if that happens, the applicant will be required to “demonstrate satisfaction” with the Pinelands regulations at the time that an application is made for Pinelands approval of a specific site. In addition, zoning and RF safety requirements will have to be demonstrated by application to the appropriate municipal entity.