



## RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION

NO. PC4-11- 38

**TITLE:** Issuing an Order to Approve the Amendment to the Comprehensive Plan for PCS Communications Facilities in the Pinelands on Behalf of T-Mobile Northeast LLC Doing Business as T-Mobile

Commissioner Hucas moves and Commissioner Earlen seconds the motion that:

**WHEREAS**, the Pinelands Commission adopted amendment to the Pinelands Comprehensive Management Plan in 1995 to permit local communications facilities to exceed the 35 foot height limitation set forth in N.J.A.C. 7:50-5.4, if a comprehensive plan for all of a provider's proposed local communications facilities throughout the Pinelands Area is approved by the Pinelands Commission; and

**WHEREAS**, providers of cellular service submitted a comprehensive plan that was approved by the Pinelands Commission on September 11, 1998; and

**WHEREAS**, providers of PCS service submitted an amendment to the comprehensive plan that was approved by the Pinelands Commission on January 14, 2000; and

**WHEREAS**, AT&T Wireless of PCS of Philadelphia, LLC and its Affiliates submitted an amendment to the comprehensive plan that was approved by the Pinelands Commission on December 12, 2003; and

**WHEREAS**, T-Mobile Northeast LLC doing business as T-Mobile (hereinafter T-Mobile) has submitted an amendment to the comprehensive plan, entitled Amendment to the Comprehensive Plan for PCS Communications Facilities in the Pinelands on Behalf of T-Mobile Northeast LLC Doing Business as T-Mobile (hereinafter referred to as the Amendment) which the Executive Director deemed complete for purposes of review on August 9, 2011; and

**WHEREAS**, a public hearing on the amendment was duly advertised, noticed and held on September 27, 2011 at the Richard J. Sullivan Center, 15C Springfield Road, New Lisbon, New Jersey at 9:30 a.m.; and

**WHEREAS**, the Commission's technical consultant reviewed the Amendment and submitted a report of its finding to the Commission; and

**WHEREAS**, the Executive Director has reviewed the Amendment and the Commission's technical consultant's report; and

**WHEREAS**, the Executive Director has considered all public comments received on the Amendment; and

**WHEREAS**, the Executive Director has submitted a October 28, 2011 report of her findings to the Commission; and

**WHEREAS**, the Executive Director has found that the Amendment is consistent with the standards of the N.J.A.C. 7:50-5.4; and,

**WHEREAS**, the Commission's CMP Policy and Implementation Committee has reviewed the Amendment and the Executive Director's report and has recommended that the Amendment be approved; and

**WHEREAS**, in making its recommendation, the CMP Policy and Implementation Committee emphasized that pursuant to N.J.A.C. 7:50-5.4(c)4iv, no new antenna support structures may be built within five miles of the Forked River Mountains, including Facilities 73, 75, 76, 77, 80, 81, and 83 as proposed in the T-Mobile Plan; and

**WHEREAS**, the CMP Policy and Implementation Committee further emphasized that the siting of Facility 69 must be consistent with the intent of the 2004 settlement agreement between Hovsons, Inc., the Department of Environmental Protection, and the Commission, whether or not deed restrictions have been recorded on the lands subject to that agreement; and

**WHEREAS**, the Commission finds that the Amendment is consistent with the standards of N.J.A.C. 7:50-5.4 insofar as those standards apply to the preparation and approval of an amendment to a comprehensive plan for local communications facilities; and

**WHEREAS**, the Commission expressly recognizes that approval of this Amendment establishes a framework for siting local communications facilities but does not approve any specific application for development for any local communications facility; and

**WHEREAS**, the Commission also recognizes that this Amendment may be further amended pursuant to N.J.A.C. 7:50-5.4 and that the Executive Director shall advise the Commission of the need for amendments as specific conditions arise consistent with the advice of the Attorney General's office; and

**WHEREAS**, the Commission accepts the recommendation of the Executive Director to approve the Amendment and affirm the recommended procedures for the siting of individual wireless communications facilities, as set forth in Appendix D to her report; and

**WHEREAS**, pursuant to N.J.S.A. 13:18A-5h, no action authorized by the Commission shall have force or effect until ten (10) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period the Governor shall approve same, in which case the action shall become effective upon such approval.

**NOW, THEREFORE BE IT RESOLVED** that

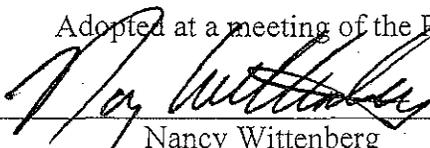
1. An Order is hereby issued to approve the Amendment to the Comprehensive Plan for PCS Communications Facilities in the Pinelands on Behalf of T-Mobile Northeast LLC Doing Business as T-Mobile, dated August 1, 2011.
2. The Pinelands Commission expressly affirms that the review of all applications for development for all of the local communications facilities within the Amendment shall be done in accordance with the Executive Director's Report, dated October 28, 2011, including its appendices, in order to be consistent with CMP requirements.

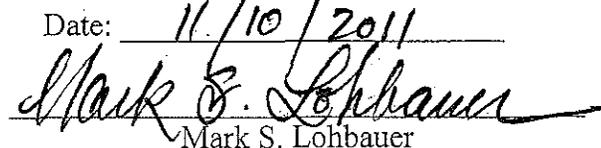
**Record of Commission Votes**

AYE NAY NP ABS				AYE NAY NP ABS				AYE NAY NP ABS				
Ashmun	X			Haas	X			Quinn			X	
Brown	X			Harris			X	Rohan Green	X			
Earlen	X			Jackson	X			Witt	X			
Ficcaglia	X			Lloyd			X	Lohbauer	X			
Galletta			X	McGlinchey	X							

Adopted at a meeting of the Pinelands Commission

Date: 11/10/2011

  
 Nancy Wittenberg  
 Executive Director

  
 Mark S. Lohbauer  
 Chairperson



## State of New Jersey

THE PINELANDS COMMISSION

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CHRIS CHRISTIE  
Governor

KIM GUADAGNO  
Lt. Governor

Nancy Wittenberg  
Executive Director

### **REPORT ON THE PROPOSED AMENDMENT TO THE COMPREHENSIVE PLAN FOR PCS COMMUNICATIONS FACILITIES IN THE PINELANDS ON BEHALF OF T-MOBILE NORTHEAST LLC (DOING BUSINESS AS T-MOBILE)**

October 28, 2011

Warren O. Stilwell, Esq., on behalf of T-Mobile Northeast, LLC  
Cooper Levenson April Niedelman & Wagenheim, P.A.  
1125 Atlantic Avenue  
Atlantic City, NJ 08401

#### I. INTRODUCTION

##### a. Background

Since 1981, when the Pinelands Comprehensive Management Plan (CMP) went into effect, a 35-foot height limit has prevented the construction of tall structures throughout much of the Pinelands Area. The CMP's height restrictions are intended to prevent the proliferation of structures that significantly detract from the scenic qualities of the Pinelands Area, which federal and state legislation have directed the Pinelands Commission to protect. Of course, there have always been exceptions to the CMP's 35-foot height limit. Within Regional Growth Areas, Pinelands Towns, and portions of Military and Federal Installation Areas, there are no height restrictions at all; and, within the remainder of the Pinelands Area, certain structures are permitted to exceed 35 feet in height.

In 1995, the Pinelands Commission amended the CMP's height restrictions in recognition of what had, at that time, already become a legitimate need: the provision of wireless communications services throughout the United States and within the Pinelands Area. Accordingly, local communications facilities, which provide wireless communication services, were permitted to exceed the 35-foot height limit where a comprehensive plan for the installation of such facilities throughout the entire Pinelands Area has been approved by the Pinelands Commission. The CMP's amended restrictions recognize that well designed and integrated wireless communications networks can greatly reduce the unnecessary proliferation of wireless communications structures throughout the Pinelands Area, and, most importantly, in its most conservation-oriented areas.

[www.nj.gov/pinelands](http://www.nj.gov/pinelands)

General Information: [Info@njpines.state.nj.us](mailto:Info@njpines.state.nj.us)

Application Specific Information: [AppInfo@njpines.state.nj.us](mailto:AppInfo@njpines.state.nj.us)

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The Commission approved the Comprehensive Plan for Cellular Telephone Facilities (the Cell Plan) in September 1998. The first amendment to the Cell Plan, entitled the Comprehensive Plan for PCS Communications Facilities in the Pinelands (the PCS Plan), was approved by the Commission in January 2000. In December 2003, the second amendment to the Cell Plan, entitled the Amendment to the Comprehensive Plans for Cellular and Personal Communications Service to include AT&T Wireless PCS of Philadelphia, LLC and its affiliates for Wireless Communications Facilities in the Pinelands (the AT&T Plan), was approved by the Commission.

In 2006, the CMP's height restrictions were again amended, in part, to recognize that altering certain aspects of wireless communications structures themselves can reduce their visual impact upon the scenic resources of the Pinelands Area. T-Mobile's proposed Amendment to the Comprehensive Plan for PCS Communications Facilities in the Pinelands on Behalf of T-Mobile Northeast LLC Doing Business as T-Mobile (the T-Mobile Plan) is subject to review under these amended height restrictions.

b. Appendices to this Report

The following documents are attached hereto:

Appendix A – Amendment to the Comprehensive Plan for PCS Communications Facilities in the Pinelands on Behalf of T-Mobile Northeast, LLC (Doing Business as T-Mobile)

Appendix B – Map of Sites Proposed in the Amendment to the Comprehensive Plan for PCS Communications Facilities in the Pinelands on Behalf of T-Mobile Northeast, LLC (Doing Business as T-Mobile)

Appendix C – Alion Science and Technology's Analysis of the T-Mobile PCS Plan for the New Jersey Pinelands

Appendix D – Hierarchical policy for siting individual wireless communications facilities;

Appendix E – Written comments from Pinelands Preservation Alliance concerning T-Mobile's proposed amendment (dated September 29, 2011)

Appendix F – Written comments from Joint Base McGuire-Dix-Lakehurst concerning T-Mobile's proposed amendment (dated September 30, 2011)

Appendix G – Chart of Sites Proposed in the Amendment to the Comprehensive Plan for PCS Communications Facilities in the Pinelands on Behalf of T-Mobile Northeast, LLC (Doing Business as T-Mobile)

c. Submission of this Amendment

In May 2006, T-Mobile first submitted its proposed amendment for the Commission's review. During the course of the following five years, T-Mobile worked cooperatively with the

Commission's staff to develop and refine its proposed amendment, the third such amendment proposed to the original Cell Plan. T-Mobile's Plan is a cumulative plan that, in addition to incorporating each of the Commission's three prior approvals, proposes the installation or construction of 36 local communications facilities. After years of patient cooperation, T-Mobile's Plan was deemed complete for purposes of Commission review on August 9, 2011<sup>1</sup>. A summary of the most recent version of the T-Mobile Plan was presented to the Policy and Implementation Committee on September 23, 2011. A public hearing to receive testimony concerning the consistency of the T-Mobile Plan with the standards and provisions of the CMP was duly advertised, noticed and held on September 27, 2011.

d. Summary of this Amendment's Facility Siting Proposal

T-Mobile's Plan proposes a total of 36 local communications facilities within the Pinelands Area. A local communications facility consists of an antenna or antennas and any support structure together with any accessory facilities. For example, a local communications facility could be an antenna installed on a lattice tower (its support structure) together with its ground station (typically, small shed-sized buildings or cabinets); an antenna installed on a monopole (its support structure) together with its ground station; or, an antenna installed on a water tower (its support structure) together with its ground station. Of the 36 facilities included within the T-Mobile Plan, five are to be located at sites previously approved by the Commission. T-Mobile also proposes to use six existing structures as facility platforms. The remaining 25 facilities included within T-Mobile's Plan will require the construction of new support structures (towers or otherwise). Five of the remaining 25 facilities are proposed in Regional Growth Areas where the CMP's height limits are inapplicable. The other 20 new facilities proposed in the T-Mobile Plan are within the CMP's height-restricted management areas.

To demonstrate whether these 20 facilities can likely be sited consistent with the standards of N.J.A.C. 7:50-5.4(c), T-Mobile analyzed a one-mile-radius area surrounding the coordinates for each proposed facility. Based on T-Mobile's analysis, which has been verified and confirmed by the Commission's staff in part, and on staff's own independent analysis, it does not appear likely that seven of the 20 proposed new facilities can, in fact, be sited consistent with the standards of N.J.A.C. 7:50-5.4(c). As a result, at the time an application for development is submitted for any of these seven facilities, the facility will be subject to a heightened standard of review pursuant to N.J.A.C. 7:50-5.4(c)6. The Commission's staff has attempted to estimate the anticipated visual impact of these seven new facilities using a GIS-based methodology. The results of the staff's viewshed analysis indicate that the potential visual impact of some of these seven proposed facilities could be quite dramatic. Therefore, it is recommended that great care be taken during the application process to ensure that T-Mobile's alternatives analyses for these facilities are as accurate and robust as possible. It is further recommended that any method T-Mobile proposes for avoiding or minimizing the visual impacts of these seven facilities (whether it be multiple shorter towers or stealthing) be subject to the strictest scrutiny possible to ensure that the proposed method will achieve the desired outcome.

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<sup>1</sup> A completeness determination simply acknowledges that T-Mobile has provided sufficient information upon which to begin the formal review process. It does not *per se* imply that T-Mobile's Plan is consistent with the CMP.

## II. CONFORMANCE WITH THE COMPREHENSIVE MANAGEMENT PLAN

### a. Introduction

N.J.A.C. 7:50-5.4 sets forth the standards by which the T-Mobile Plan must be reviewed. If these standards are met, the Commission must approve T-Mobile's proposed amendment. If the standards are not met, the Commission may conditionally approve or disapprove T-Mobile's Plan, depending on the extent and severity of the amendment's deficiencies. The Commission has historically interpreted its regulations to require that, wherever technically feasible, the T-Mobile Plan incorporate, amend, and expand upon the facility array and all other applicable provisions contained in the previously approved comprehensive local communications facility siting plan as well as the amendments thereto. T-Mobile's Plan does just that by expressly incorporating each of the Commission's three prior approvals in its proposal to install or construct its own 36 local communications facilities.

For purposes of this report, N.J.A.C. 7:50-5.4's standards have been separated into ten criteria. A discussion of each criterion and the amendment's conformance therewith follows. To aid in the staff's review of the amendment, the Commission retained Alion Science & Technology Corporation (Alion), a world-renowned radio frequency expert, to evaluate T-Mobile's signal propagation maps. Alion's review is appended to this report as Appendix C and is reflected, as appropriate, in the findings which follow.

### b. Standards

#### **1. The amendment must be agreed to and submitted jointly by all providers of the same type of service, where feasible. N.J.A.C. 7:50-5.4(c)6.**

This requirement is intended to ensure that the greatest possible degree of coordinated planning occurs so as to minimize the number of new structures within the Pinelands Area. T-Mobile notified all known providers of wireless communication services of its proposed amendment by way of certified mailing. Its notice included a full copy of the T-Mobile Plan; invited other providers to participate in its proposed amendment; and, requested comments from any provider believing that their previously approved sites would be negatively impacted by its proposed amendment. Moreover, the September 27, 2011 public hearing to receive testimony concerning the consistency of the T-Mobile Plan with the CMP was duly advertised and noticed by the Commission. Thus, other providers of wireless communication services were given adequate notice of the T-Mobile Plan. Only Sprint Spectrum L.P. and Nextel of New York, Inc. (Sprint/Nextel) indicated it wished to become a participant in the T-Mobile Plan. Other than Sprint/Nextel, no comments or objections were received from any other provider of wireless communication services. To deny the proposed amendment based on a lack of participation by a greater number of wireless communication providers would be inappropriate.

**The Executive Director concludes that this standard has been met.**

**2. The amendment must review alternative technologies that may become available for use in the near future. N.J.A.C. 7:50-5.4(c)6.**

The purpose of this standard is to identify other technologies that should, at the very least, be considered as the pending amendment is reviewed. The T-Mobile Plan incorporates the treatment of alternate technologies as set forth in the Cell Plan and the amendments thereto and also expressly addresses a technology known as Distributed Antenna Systems (DAS). DAS employs a series of low-mounted antennas, generally attached to telephone poles and connected by fiber-optic cable, in lieu of tall towers. The proposed amendment concludes that DAS is not an economically or technically feasible alternative to the use of antennas mounted on tall structures. Alion's review of DAS also concluded that its use within the Pinelands Area was neither technically nor economically feasible. T-Mobile argues further that to require it to use DAS would not only infringe upon its responsibility to provide seamless, reliable, and ubiquitous service within the Pinelands Area but also violate its rights under various federal acts and regulations. The Commission's staff concurs with T-Mobile's legal analysis of its ability to require the use of DAS or any other specific technology. However, the Commission reaffirms its right to require plan participants to meet the CMP's height requirements, visual impact requirements, and siting requirements. While it is not the Commission's intent to require the use of any specific technology, the Commission does recognize that in order to meet the CMP's height requirements, visual impact requirements, or siting requirements, a plan participant may need to use a technology other than its preferred or customary technology.

Although DAS is not a feasible alternative for purposes of this proposed amendment, T-Mobile does acknowledge that certain siting and camouflaging techniques may be used to reduce the visual impacts of its proposed antenna support structures. Where it does not seem likely that a proposed tower can be sited consistent with the CMP's standards, T-Mobile has expressly agreed to work with the Commission's staff to develop those sites using such techniques (as is required per the CMP).

**The Executive Director concludes that this standard has been met.**

**3. The amendment must show the approximate location of all proposed facilities. N.J.A.C. 7:50-5.4(c)6.**

In order to evaluate the consistency of the T-Mobile Plan with various CMP standards, the proposed amendment must identify the approximate locations of all facilities identified therein, including those which will utilize existing structures and those which will require new ones. T-Mobile's proposed amendment provides a narrative for each proposed facility that identifies the county in which each facility will be located; the municipality in which each facility will be located; the management area in which each facility will be located; and, whether each facility requires a new structure or will use an existing structure. T-Mobile's narrative also notes if a facility has been previously approved by the Commission and, where applicable, whether the facility can be sited consistent with the CMP's siting and visual impact standards. In addition, the proposed amendment provides precise geographic coordinates (i.e., latitude and longitude coordinates) for each facility included therein. T-Mobile has agreed to locate each of the facilities in its proposed amendment within a one-mile-radius area surrounding these coordinates.

**The Executive Director concludes that this standard has been met.**

**4. The amendment must include five- and ten-year horizons. N.J.A.C. 7:50-5.4(c)6.**

T-Mobile's Plan states that it intends to build all of the sites within its proposed amendment within five years or as quickly as possible.

**The Executive Director concludes that this standard has been met.**

**5. The amendment must demonstrate that it is likely that every facility proposed in the Pinelands Area is necessary to provide adequate service within the Pinelands Area and that it is likely that all such facilities must be located within the Pinelands Area in order to provide adequate service. N.J.A.C. 7:50-5.4(c)1.**

To demonstrate the necessity for every local communications facility proposed in the T-Mobile Plan, T-Mobile provided signal propagation maps depicting both the existing coverage within the area of each proposed facility as well as the expected level of coverage post-installation. These signal propagation maps were then reviewed by Alion, the Commission's radio frequency expert. Alion's review of the proposed T-Mobile Plan concluded that it "constitute[d] an accurate representation of the existing and proposed communication facilities necessary to provide adequate, reliable [wireless communication] service to the [Pinelands Area] now and for the near future." Alion's review further noted that none of the proposed facilities could be eliminated, combined, or relocated "without negatively affecting coverage."

Since the Commission's expert has determined that all of the facilities proposed within the Pinelands Area are needed to provide adequate service, **the Executive Director concludes that this standard has been met.**

**6. The amendment must demonstrate that the facilities to be located in the Preservation Area District, the Forest Area, the Special Agricultural Production Area and 17 specific Pinelands Villages are the least number necessary to provide adequate service, taking into consideration the location of facilities outside the Pinelands. N.J.A.C. 7:50-5.4(c)6.**

The purpose of this standard is to provide a heightened level of scrutiny for the 16 facilities proposed in conservation-oriented management areas. As was the case with the Commission's previous approvals, T-Mobile's system of local communications facilities represents a network of facilities, each of which may affect the locations of other facilities in the system. Thus, the location of facilities outside conservation-oriented management areas may be relevant when evaluating the need for new facilities within conservation-oriented management areas. In order to demonstrate consistency with this standard, T-Mobile again relied upon its signal propagation maps. As noted above, the Commission relied upon its radio frequency expert, Alion, to determine whether T-Mobile's signal propagation maps do, in fact, demonstrate that the number of facilities proposed in conservation-oriented management areas is the least number necessary to provide adequate service. In this regard, Alion's review noted both that "it is not feasible to relocate the proposed sites outside of [conservation-oriented management] areas without

negatively affecting coverage” and that none of the proposed sites can “be combined without negatively affecting coverage.”

**The Executive Director concludes that this standard has been met.**

**7. The amendment must demonstrate that it is likely that, to the extent practicable, existing communications or other structures have been used. N.J.A.C. 7:50-5.4(c)3.**

The purpose of this standard is to ensure that the fewest possible number of new towers are constructed throughout the Pinelands Area. The T-Mobile Plan notes that its consultants and employees were sent into the field to identify existing structures in the area of its proposed facilities that might be suitable for its use. Wherever a suitable structure was found within the vicinity of a proposed facility, the proposed amendment is noted accordingly. And, in fact, up to nine of T-Mobile’s proposed facilities will use existing structures. Alion’s review of the T-Mobile Plan indicated that as many as six more proposed facilities may be able to use existing structures. Although T-Mobile and Alion seem to disagree, at the moment, over the precise number of existing structures that may be suitable for its use, the T-Mobile Plan explicitly acknowledges that if, and when, an application for development is submitted for any proposed facility, T-Mobile will again have to show that there are no existing suitable structures available within the vicinity of the proposed facility. Because T-Mobile has accepted affirmative responsibility to resolve any disagreement concerning the suitability of existing structures during this latter review, **the Executive Director concludes that this standard, insofar as it applies to this amendment, has been met.**

**8. The amendment must demonstrate, or note the need to demonstrate when the actual siting of facilities is proposed, that, if a new support structure is to be constructed, it can likely be sited consistent with the six criteria in N.J.A.C. 7:50-5.4(c)4. These criteria deal with satisfying technical operating requirements; minimizing visual impacts from public areas, wild and scenic rivers and special scenic corridors, the Pine Plains, the Forked River Mountains and residential areas; and, if proposed in the Preservation Area District, Forest Area, Special Agricultural Area, or Rural Development Area, locating the facility in nonresidential zones, unreserved public lands, mines, first aid or fire stations, and landfills.**

While, at a minimum, the CMP only requires the proposed amendment to note the need to demonstrate likely consistency with N.J.A.C. 7:50-5.4(c)4’s criteria, T-Mobile has done a great deal more than it is minimally required to do for the 20 new facilities proposed in height-restricted areas. Using a series of GIS-based maps, T-Mobile analyzed a one-mile-radius area surrounding the coordinates for each of its proposed facilities. It has thus attempted to graphically demonstrate which of its proposed facilities can likely be sited consistent with the CMP’s visual and siting criteria. As a result of its own analysis, T-Mobile identified five proposed facilities that cannot likely be sited consistent with the CMP’s criteria (proposed facilities 77, 83, 88, 90, and 98). Staff’s own analysis of the one-mile-radius area surrounding each of T-Mobile’s proposed facilities concurs with four of the five sites identified by T-Mobile (proposed facilities 77, 83, 88, and 98). However, according to the best information available to staff, it seems likely that proposed facility 90 can, in fact, be sited consistent with the CMP’s

criteria at an existing fire department site within the Presidential Lakes neighborhood. Staff's own analysis also identified three additional sites that cannot likely be sited consistent with the CMP's criteria (proposed facilities 81, 91, and 107). T-Mobile has proposed to site facility 81 at an existing junkyard on the basis that a junkyard is a landfill. The Commission disagrees. Junkyards are not landfills under the CMP. As a result, it does not appear likely that proposed facility 81 can be sited consistent with the CMP's standards. T-Mobile has proposed to site facility 91 at a New Jersey State facility. While there may have been a New Jersey State facility within one mile of proposed facility 91 when T-Mobile initially filed its proposed amendment, there no longer seems to be one there now. As a result, it does not appear likely that proposed facility 91 can be sited consistent with the CMP's standards. T-Mobile has proposed to site facility 107 at a nearby resource extraction site. Our analysis of the area revealed the presence of some cleared areas within one mile of proposed facility 107 but no resource extraction sites. As a result, it does not appear likely that proposed facility 107 can be sited consistent with the CMP's standards.

Although it seems unlikely that these seven proposed facilities (77, 81, 83, 88, 91, 98, and 107) can be sited consistent with the CMP's criteria, the CMP does not require that the proposed amendment be denied as a result nor does it even require that these proposed facilities be removed from the proposed amendment. Rather, the CMP requires that, at the time an application for development is submitted for any of these seven facilities, the facility will be subject to a heightened standard of review pursuant to N.J.A.C. 7:50-5.4(c)6. To wit, T-Mobile will be required to specify how the use of alternatives could reduce the anticipated visual impact of these seven facilities. T-Mobile has agreed to explore the use of multiple shorter towers and stealthing for those sites that cannot likely be sited consistent with the CMP's criteria. The Commission's staff's GIS-based viewshed analysis for these seven facilities indicates that the potential visual impact of some of these seven proposed facilities could be quite dramatic. It is, therefore, recommended that great care be taken during the application process for these seven facilities (77, 81, 83, 88, 91, 98, and 107) to ensure that T-Mobile's alternatives analyses for these facilities are as accurate and robust as possible. It is further recommended that any method T-Mobile proposes for avoiding or minimizing the visual impacts of these seven facilities (whether it be multiple shorter towers or stealthing) be subject to the strictest scrutiny possible to ensure that the proposed method will achieve the desired outcome (i.e., a reduced visual impact).

**The Executive Director concludes that this standard has been met.**

**9. The amendment must demonstrate, or note the need to demonstrate when the actual siting of facilities is proposed, that support structures are designed to accommodate the needs of any other local communications provider which has identified a need to locate a facility within an overlapping service area. N.J.A.C. 7:50-5.4(c)2. A closely related CMP standard also requires that the plan must demonstrate, or note the need to demonstrate when the actual siting of facilities is proposed, that the support structure, if initially constructed at a height less than 200 feet, can be increased to 200 feet to accommodate other local communications facilities in the future. N.J.A.C. 7:50-5.4(c)5. Another closely related standard in N.J.A.C. 7:50-5.4(c)6 requires that the plan must provide for joint construction and use of the support structures.**

Each of these three standards is intended to facilitate, to the greatest extent practicable, collocation amongst wireless communications providers. The T-Mobile Plan expressly affirms the shared services and collocation policies incorporated into the Commission's prior approvals. In so doing, T-Mobile has agreed to joint construction and use of any support structure built pursuant to its proposed amendment; to accommodate the needs of any other local communications provider which has identified a need to locate a facility within an overlapping service area; and, to design the support structure of its proposed facilities such that, if initially constructed at a height less than 200 feet, they can be increased to 200 feet to accommodate other local communications facilities in the future.

**Therefore, the Executive Director concludes that these standards have been met.**

**10. If it reduces the number of facilities to be developed, shared service shall be part of the plan unless precluded by federal law. N.J.A.C. 7:50-5.4(c)6.**

The purpose of this standard is to encourage wireless communications providers to consider the possibility of single server coverage. T-Mobile's proposed amendment and the plans previously approved by the Commission note that this standard is at odds with federal statutes and regulations. Indeed, the Federal Communications Commission itself has indicated that this standard may be inconsistent with its rules. While T-Mobile has not agreed to "shared services" as originally contemplated by the Commission, T-Mobile, like all of the previous plan participants, has agreed to a common collocation policy. Since T-Mobile has probably agreed to do all that it can legally be required to do with respect to this standard, **the Executive Director concludes that this standard has been met.**

### III. PUBLIC HEARING AND REVIEW PROCESS

A public hearing to receive testimony on the T-Mobile Plan was duly advertised, noticed and held on September 27, 2011 at the Richard J. Sullivan Center, 15C Springfield Road, New Lisbon, New Jersey at 9:30 a.m. Mr. Tyshchenko conducted the hearing at which no testimony was received.

Written comments on the T-Mobile Plan were accepted through September 30, 2011 and were received from the following parties:

Theresa Lettman, Director for Monitoring Programs, Pinelands Preservation Alliance  
(see Appendix E)

Dennis Blazak, Deputy Asset Manager, 87<sup>th</sup> Civil Engineer Squadron, Department of the Air Force, Joint Base McGuire-Dix-Lakehurst (see Appendix F)

On behalf of the Pinelands Preservation Alliance, Ms. Lettman provides comments on 11 of T-Mobile's proposed facilities. She notes that proposed facility 69 should be removed from the proposed amendment because she believes that it will be constructed on deed-restricted portions of the former Heritage Mineral Tract. Ms. Lettman also states that proposed facilities 77, 83, and 88 should be removed from the plan because she does not believe that there are any sites within

the vicinity thereof that are consistent with the CMP's requirements. She argues that proposed facility 81 should be removed from the plan as well if it encroaches into the five-mile buffer zone around the Forked River Mountains. Ms. Lettman also argues that proposed facility 86 should be removed from the plan if it cannot be constructed at the firehouse in Warren Grove. With respect to proposed facility 107, Ms. Lettman argues that because she is unsure of "what the company's alternatives might be" for this proposed facility, it too should be removed from the plan.

She notes that no sites, within the vicinity of proposed facility 70, that are consistent with CMP requirements can be seen on aerial photographs and that the only areas of disturbance within the area occur on grounds of Joint Base McGuire-Dix-Lakehurst. Ms. Lettman questions whether T-Mobile can be required to use the First Energy Electric transmission towers that it proposes to use for facility 72; or, if, for some reason it cannot do so, will it be permitted to construct a new tower. With regard to proposed facility 76, Ms. Lettman opines that the existing structure T-Mobile proposes to use will be at a site with existing violations. She notes that if that is, in fact, the case, the violations will have to be addressed prior to any Commission approval of an application for development. Finally, Ms. Lettman observes that if proposed facility 108 is not located at the Atco Raceway, she would not support locating it within Wharton State Forest.

On behalf of Joint Base McGuire-Dix-Lakehurst (JB MDL), Mr. Blazak states that six of T-Mobile's proposed facilities are on, or close to, the Joint Base and may interfere with military aviation; and, that another three of the proposed facilities are along the flight path between JB MDL and the Warren Grove Aerial Gunnery Range and may interfere with flights between the two. Mr. Blazak notes that it is not possible to determine whether these proposed facilities will actually cause any interference without the exact location, site elevation, and tower height of the proposed facilities. Mr. Blazak also notes it is unknown whether the proposed facilities will require FAA concurrence or whether they will be equipped with navigational lights.

### **EXECUTIVE DIRECTOR'S RESPONSE**

For various reasons, Ms. Lettman argues that proposed facilities 69, 77, 81, 83, 86, and 88 should be removed from the proposed amendment. Regardless of the merits of Ms. Lettman's objections to these proposed facilities, that is not the appropriate remedy under the CMP for a facility for which it has been demonstrated there is a need but which cannot likely be sited consistent with the CMP's visual or siting requirements. Rather, as noted above, the correct remedy is to subject those proposed facilities to a heightened level of scrutiny by requiring an alternatives analysis, which will demonstrate how T-Mobile can reduce the potential visual impact of the proposed facilities. T-Mobile will be required to do so for seven of its proposed facilities (facilities 77, 81, 83, 88, 91, 98, and 107) and has agreed to explore both the use of multiple shorter towers and stealthing to reduce potential visual impacts.

With respect to proposed facility 70, Ms. Lettman correctly notes that there do not appear to be any sites off JB MDL grounds that are consistent with CMP requirements. However, the CMP authorizes the siting of proposed facilities on substantially developed portions of Military and Federal Installation Areas. Thus, her comments with respect to this proposed facility do not represent a deficiency in the proposed amendment. With respect to proposed facility 72, Ms.

Lettman questions whether T-Mobile can be required to use the First Energy Electric transmission towers that it proposes to use; or, if, for some reason it cannot do so, will it be permitted to construct a new tower. Since T-Mobile has not applied for authorization to construct a new tower or other support structure for proposed facility 72, neither it nor another wireless communications provider will be permitted to do so without first obtaining Commission approval of a plan amendment, unless it can be done in accordance with Appendix D. With respect to proposed facility 76, Ms. Lettman opines that the existing structure T-Mobile proposes to use will be at a site with existing violations. She correctly notes that if that is, in fact, the case, the violations will have to be addressed prior to any Commission approval of an application for development. Finally, Ms. Lettman observes that if proposed facility 108 is not located at the Atco Raceway, she would not support locating it within Wharton State Forest. The Commission also would not support locating proposed facility 108 within Wharton State Forest. However, since it appears likely that there are other sites within the vicinity of proposed facility 108 that are consistent with the CMP's visual and siting criteria, this does not seem like a scenario the Commission need concern itself with nor would it be likely to occur under any circumstances.

The Executive Director has no doubt that JB MDL's concerns, as expressed by Mr. Blazak, are valid and well-founded military and aviation concerns. However, they are not grounds upon which the Commission can validly deny T-Mobile's proposed amendment. Whether T-Mobile's proposed facilities require FAA concurrence and whether they will be equipped with navigational lights are not matters within the Commission's purview. Nor, would the Commission's approval of the proposed facilities obviate the need for FAA concurrence or navigational lights if required by other federal or state legislation or regulation. Similarly, whether T-Mobile's proposed facilities will interfere with military aviation on, or near, JB MDL or between it and the Warren Grove Aerial Gunnery Range are also not legitimately matters within the Commission's scope of review. The Commission has determined that all but one of the proposed facilities with which JB MDL has expressed concern can likely be sited consistent with the CMP's standards. That determination does not authorize those proposed facilities to be constructed on JB MDL grounds without its consent. Nor, does it express the Commission's endorsement of the construction of any proposed facility that would interfere with military aviation. To the extent that JB MDL's grounds provide the only site upon which a proposed facility can be sited consistent with the CMP's standards, T-Mobile will either have to construct it consistent with JB MDL's requirements or amend its plan accordingly. For better or for worse, the Commission's authority, limited as it is by federal and state legislation and by its own regulations, does not extend far enough to regulate T-Mobile's proposed facilities on any of the grounds expressed by Mr. Blazak. It is also possible that many, if not all, of JB MDL's concerns will be assuaged once T-Mobile provides it with additional information.

#### IV. CONCLUSION

The T-Mobile Plan proposes a total of 36 new facilities within the Pinelands Area and anticipates the construction of 25 new towers not previously approved by the Commission (five of which will be in Regional Growth Areas). Based on the foregoing analysis, the proposed amendment is consistent with the goals and standards of the CMP. Though consistent, the T-Mobile Plan is not without potential issues. Many new facilities are proposed within the most sensitive portions of

the Pinelands Area. Seven of which it does not seem likely can be sited consistent with the CMP's visual and siting criteria. Thus, even with the heightened scrutiny these seven facilities will be subject to, sensitive Pinelands viewsheds may be negatively impacted. Nevertheless, even with these potential issues, T-Mobile's amendment establishes a framework, which, if successfully implemented, will allow it to provide seamless, reliable, and ubiquitous wireless communications service within the Pinelands Area and will result in less visual pollution than is likely in other parts of the State and the nation and than would occur otherwise. Furthermore, even with approval of this amendment, individual facilities will have to be approved by the Commission in accordance with the provisions of N.J.A.C. 7:50-5.4 and other applicable CMP standards. In the review of such applications, the Commission will be guided by the hierarchical policy for siting individual wireless communications facilities, which is appended to this report as Appendix D.

**The Executive Director has concluded that the "Amendment to the Comprehensive Plan for PCS Communications Facilities in the Pinelands on Behalf of T-Mobile Northeast LLC Doing Business as T-Mobile" is consistent with the goals and standards of the Comprehensive Management Plan. Accordingly, the Executive Director recommends that the Pinelands Commission approve the "Amendment to the Comprehensive Plan for PCS Communications Facilities in the Pinelands on Behalf of T-Mobile Northeast LLC Doing Business as T-Mobile." The Executive Director further recommends that the Pinelands Commission expressly affirm that the review of any application for development for any facility included within the T-Mobile Plan shall be done in accordance with this report, including its appendices.**

Attachments

**AMENDMENT TO THE COMPREHENSIVE PLAN FOR PCS  
COMMUNICATIONS FACILITIES IN THE PINELANDS ON BEHALF OF T-  
MOBILE NORTHEAST LLC DOING BUSINESS AS T-MOBILE**

**AUGUST 1, 2011**

## **SUMMARY OF PROPOSED SITE AMENDMENTS TO THE PLANS PREVIOUSLY APPROVED FOR LOCAL COMMUNICATIONS FACILITIES IN THE PINELANDS**

Please note that each of the following sites is referenced as a PCS Plan numbered site. The site numbers begin with number 69 and run through Site 111. Please note that, for various reasons, numbers 68, 87, 78, 79, 84 and 89, 102 and 106 were eliminated from the Plan. The proposed new sites are as follows:

### **PCS Plan Facility 069:**

This facility is located in Ocean County, Manchester Township in a Forest Area. The facility requires a new structure. This facility is located off of Route 70 and appears to be in the vicinity of a resource extraction area that would be a suitable place for development.

### **PCS Plan Facility 070:**

This is a facility in Ocean County, Manchester Township. This facility is located in the Preservation Area where there appears to be substantially developed areas that would be appropriate for development. The facility would require a new structure. The facility is located near the intersection of County Route 539 and Horicon Avenue.

### **PCS Plan Facility 071:**

This facility is located in Ocean County, Jackson Township. It is in a Rural Development Area. The facility would require a new structure. The facility appears to be in the area of a cement making facility as well as a Municipal Utility Authority well. Either of these areas would be suitable for construction of a new tower.

### **PCS Plan Facility 072:**

This is a proposed facility in Ocean County, Jackson Township. It is located in a Forest Area. The facility would utilize existing structures which currently exist in the form of First Energy Electric transmission towers.

### **PCS Plan Facility 073:**

This facility is proposed to be located in Ocean County, Berkeley Township. It is in the Preservation Area. We propose to use a previously approved AT&T site, No. 357. The site will be located on an existing structure.

### **PCS Plan Facility 074:**

This facility is proposed to be located in Ocean County, Manchester Township. It is located in a Forest Area. There is an existing structure in the vicinity that would be suitable for use.

PCS Plan Facility 075:

This facility is proposed to be located in Ocean County, Barnegat Township. It is to be located in a Regional Growth Area. The facility will require a new structure. We note that there are no height limitations in the Regional Growth Area and therefore, this is an appropriate area for this facility.

PCS Plan Facility 076:

This facility is proposed to be located in Ocean County, Barnegat Township. It is proposed to be located in a Forest Area on an existing structure.

PCS Plan Facility 077:

This facility is proposed to be located in Ocean County, Lacey Township. It is in a Preservation Area. There are no existing structures in the area where this facility is proposed to be located and no sites that comply with the requirements of N.J.A.C. 7:50-5.4(c)4.vi. (Hereinafter referred to as a "Section 6 site".)

PSC Plan Facility 080:

This facility is proposed to be located in Ocean County, Berkeley Township. It is in a Forest Area. It is the same site as AT&T Site No. 358.

PCS Plan Facility 081:

This facility is proposed to be located in Ocean County, Lacey Township. It is in a Forest Area. This facility will require a new structure. The facility is in the vicinity of an existing junkyard (landfill).

PCS Plan Facility 082:

This facility is proposed to be located in Ocean County, Stafford Township. It is in a Regional Growth Area. It will require a new structure. However, since it is located in a Regional Growth Area and there are no height limitations, it is appropriate for development pursuant to the regulations.

PCS Plan Facility 083:

This facility is proposed to be located in Ocean County, Berkeley Township. It is proposed to be located in the Forest Area. The site will require the construction of a new facility. There are no Section 6 areas in the vicinity of the proposed site.

PCS Plan Facility 085:

This facility is proposed to be located in Ocean County, Berkeley Township. It is proposed to be located in a Regional Growth Area. This facility will be the same as AT&T Site 368.

PCS Plan Facility 086:

This facility is proposed to be located in Ocean County, Stafford Township. It is proposed in a Forest Area. The facility will require a new structure. There is an existing fire department in the area which would be a suitable site for development.

PCS Plan Facility 088:

This facility is proposed to be located in Ocean County, Little Egg Harbor Township. It is proposed in a Preservation Area. It will require a new structure. There are no existing structures or Section 6 sites in the vicinity of this proposed site.

PCS Plan Facility 090:

This facility is proposed to be located in Burlington County, Pemberton Township. It is proposed to be located in a Forest Area. This facility will require a new structure. There are no existing structures or Section 6 sites in the vicinity.

PCS Plan Facility 091:

This facility is proposed to be located in Atlantic County, City of Estell Manor. It is proposed to be located in a Forest Area. This facility will require a new structure. There is a New Jersey State Facility in the area where this facility is proposed. Such a facility would be an appropriate place to locate.

PCS Plan Facility 092:

This facility is proposed to be located in Atlantic County, Galloway Township. This facility is proposed to be located in a Pinelands Village Area. The facility will require a new structure. There is an existing fire house in the area and at the time of the proposed development of the facility, T-Mobile will examine whether it would be feasible to move the site into an adjacent Regional Growth Area.

PCS Plan Facility 093:

This facility is proposed to be located in Burlington County, Medford Township. The facility is proposed in a Regional Growth Area. The facility will require a new structure. This facility is in the vicinity of PCS Plan No. 26 and Cell Plan No. 44. However, since this is a Regional Growth Area where there are no height limitations, it is appropriate for development.

PCS Plan Facility 094:

This facility is proposed to be located in Cumberland County, Maurice River Township. The Facility is proposed in a Rural Development Area. The facility will require a new structure. The facility is proposed to be located in a certified commercial area with mixed uses. Therefore, it meets the Section 6 requirements.

PCS Plan Facility 095:

This facility is proposed to be located in Cumberland County, Maurice River Township. This facility is proposed to be located in a Forest Area. The facility will utilize an existing structure. (Facility 17 on the PCS Plan, when and if approved.)

PCS Plan Facility 096:

This facility is proposed to be located in Cape May County, Dennis Township. It is proposed to be located in a Pinelands Village Area. The facility will require a new structure. There are no existing structures available.

PCS Plan Facility 097:

This facility is proposed to be located in Atlantic County, City of Estell Manor. The facility is proposed to be located in a Forest Area. The facility will require a new structure. There is a mixed use commercial area along Route 50 within one mile of the proposed location. However, if that area does not comply with the Section 6 requirements, then there are no Section 6 sites in the area.

PCS Plan Facility 098:

This facility is proposed to be located in Burlington/Atlantic Counties, on the border of Hammonton/Shamong Township. The proposed facility is located in a Preservation Area. This facility will require a new structure. There appears to be a junk yard (landfill) in the area that we believe would qualify as a Section 6 site.

PCS Plan Facility 99:

This facility is now existing in Atlantic County, Buena Vista Township.

PCS Plan Facility 100:

This facility is proposed to be located in Atlantic County, Hamilton Township. This facility is located in a Regional Growth Area. This facility will require a new tower. As this tower is to be located in a Regional Growth Area, it is appropriate for development under the Pinelands Comprehensive Management Plan.

PCS Plan Facility 101:

This facility is located in Atlantic County, Egg Harbor Township. It is in a Regional Growth Area. It is on-air.

PCS Plan Facility 103:

This facility is proposed to be located in Atlantic County, Egg Harbor Township. The facility is proposed in a Regional Growth Area where it is permitted by Pinelands regulations.

PCS Plan Facility 104:

This facility is located in Burlington County, New Hanover Township. The facility is in a military and federal installation. We used an existing structure. The site is on-air.

PCS Plan Facility 105:

This facility is proposed to be located in Gloucester County, Monroe Township. The facility is in a Rural Development Area. The facility will require a new structure.

PCS Plan Facility 107:

This facility is proposed to be located in Atlantic County, Estell Manor, in a Forest Area. It will require a new structure. There is a possible resource extraction site in the area, but no other Section 6 sites.

PCS Plan Facility 108:

This facility is located in Burlington County, Evesham Township in a Rural Development Area. The site is on-air.

PCS Plan Facility 109:

This facility is proposed to be located in Burlington County, Evesham Township in a Regional Growth Area and will require a new tower.

PCS Plan Facility 110:

This facility is proposed to be developed in Burlington County, Shamong Township in an Agricultural Production Area and will require a new tower.

**PCS Plan Facility 111:**

This facility is proposed to be located in Camden County, Waterford Township in a Rural Development Area and will require a new tower.

SITE NUM	NEW #	COUNTY	TOWNSHIP	PINELAND ZONE	SITE CLASSIFICATION	CELL PLAN	PCS PLAN	AT&T PLAN	LATDUSE	LONDUSE
OCE002	69	Ocean	Manchester	Forest Area	Raw Land				39.99295	-74.35215
OCE003	70	Ocean	Manchester	Preservation Area	Raw Land				39.9856	-74.4139
OCE006	71	Ocean	Jackson	Rural Development Area	Raw Land				40.0502	-74.3244
OCE012	72	Ocean	Jackson	Forest Area	Existing Structure				40.0858	-74.3922
AT&T357	73	Ocean	Berkeley	Preservation Area District	Existing Structure			357	39.9075	-74.2358
OCE017	74	Ocean	Manchester	Forest Area	Existing Structure				39.9463	-74.337
OCE019	75	Ocean	Barnegat	Regional Growth Area	Raw Land				39.7685	-74.2775
OCE025	76	Ocean	Barnegat	Forest Area	Existing Structure				39.7799	-74.3309
OCE027	77	Ocean	Lacey	Preservation Area District	Raw Land				39.891	-74.3794
AT&T358	80	Ocean	Berkeley	Forest Area	Raw Land			358	39.93237	-74.29199
OCE032	81	Ocean	Lacey	Forest Area	Raw Land				39.9173	-74.33691
OCE035	82	Ocean	Stafford	Regional Growth Area	Raw Land				39.7378	-74.2782
OCE040	83	Ocean	Berkeley	Forest Area	Raw Land				39.92132	-74.264087
OCE059	85	Ocean	Berkeley	Regional Growth Area	Raw Land				39.942	-74.2108
OCE065	86	Ocean	Stafford	Forest Area	Raw Land				39.755489	-74.368329
OCE067	88	Ocean	Little Egg Harbor	Preservation Area District	Raw Land				39.682876	-74.360821
1BL5827D	90	Burlington	Pemberton	Forest Area	Fire Dist. Raw Land				39.91611	-74.5677
1AT6619G	91	Atlantic	Estell Manor	Forest Area	Raw Land				39.42028	-74.7517
1AT6447C	92	Atlantic	Galloway	Pinelands Village	Raw Land			323	39.47333	-74.5658
1BL6450C	93	Burlington	Medford	Regional Growth Area	Raw Land	44	26		39.87008	-74.8475
1CU6614A	94	Cumberland	Maurice River	Rural Development Area	Raw Land				39.25357	-74.9276
1CU6776A	95	Cumberland	Maurice River	Forest Area	Existing Structure				39.34307	-74.9059

1CM6777D	96	Cape May	Dennis	Pinelands Village	Raw Land •				39.72784	-74.7305
1AT6782C	97	Atlantic	Estell Manor	Forest Area	Raw Land •				39.34444	-74.765
1BL7640	98	Burlington	Shamong	Preservation Area District	Raw Land •				39.22361	-74.9407
1AT6798C	99	Atlantic	Buena Vista	Rural Development Area	existing on air struct.				39.563611	-74.8925
1AT6795D	100	Atlantic	Hamilton	Regional Growth Area	Raw Land •				39.433056	-74.655278
1AT6828C	101	Atlantic	Egg Harbor	Military & Federal Installation	Raw Land • on air		304		39.447222	-74.573056
1AT6789A	103	Atlantic	Egg Harbor	Regional Growth Area	Existing Structure				39.4049	-74.619081
1BL6234D	104	Burlington	New Hanover	Military & Federal Installation	existing on air struct.				40.001128	-74.623069
1GL6623F	105	Gloucester	Monroe	Rural Development Area	Raw Land •				39.654758	-74.967181
1CM6839U	107	Atlantic	Estell Manor	Forest Area	Raw Land •				39.31509	-74.8297
1BL6917E	108	Burlington	Evesham	Rural Development Area	On air				39.867306	-74.891083
1BL7311	109	Burlington	Evesham	Regional Growth Area	Raw Land •				39.82698	-74.781008
1BL7312	110	Burlington	Shamong	Agricultural Production Area	Raw Land •				39.808055	-74.7625
1CA7298B	111	Camden	Waterford	Rural Development Area	Raw Land •				39.773475	-74.8280611

## **DISTRIBUTED ANTENNA SYSTEM/DESCRIPTION OF RAPIDLY CHANGING TECHNOLOGY**

T-Mobile does not believe that use a distributed antenna system would be technically and/or economically feasible. Further, such systems would not permit T-Mobile to provide adequate service to the Pinelands in accordance with its FCC licensing requirements. In part, but not by way of limitation, T-Mobile's position is:

1. The FCC is charged with regulating and enforcing signal service levels as well as construction requirements. 47 C.F.R. Section 24.204.

2. Existing Federal Law pre-empts this area from regulation by the Pinelands Commission. In the matter of Petition of Cingular Wireless LLC for a Declaratory Ruling that Provisions of the Anne Arundel County Zoning Ordinance as Impermissible Regulation of Radio Frequency Exclusively to the Federal Communications Commission, Memorandum Opinion and Order WT-Docket No. 02-100 (7/7/03).

3. The Telecommunications Act, 47 U.S.C. Section 253(a) "Removal of Barriers to Entry; and 47 U.S.C. Section 332(c)(7)(B)(i)(II) not allowing local governments to prohibit or have the effect of prohibiting service; would both be violated if DAS systems were required.

4. The Wireless Communications and Public Safety Act of 1999 requires T-Mobile to provide the level of service required (seamless, ubiquitous and reliable) 47 U.S.C. Section 515 (Supp. V 1999).

Personal Communications Services (PCS) enhancements and affordability have driven widespread utilization of PCS throughout New Jersey and the Nation. In addition to voice and messaging services, PCS now includes wireless remote internet access, sending and receiving email, data and photographs via hand-held wireless communications devices. Other ongoing developments include enhanced data services and internet access and implementation of a nationwide E-911 system for emergency services. Although PCS continues to evolve, and engineering and operations of the wireless infrastructure (i.e. radio electronics cabinets, software, etc.) has become more efficient, the need for tall antenna support structures, and the limited areas covered from these structures, has remained.

FORM OF LETTER TO OTHER LICENSED LOCAL COMMUNICATIONS PROVIDERS

July . 2011

**Certified Mail, Return Receipt Requested**

Sprint/Nextel  
Cingular  
Verizon Wireless

Attn:

Re: **Proposed Amendment to the Comprehensive Plan for PCS Communications Facilities in the Pinelands by T-Mobile Northeast LLC doing business as T-Mobile**

Dear

Please be advised that in accordance with the requirements of N.J.A.C. 7:50-5.4(c)6v, T-Mobile hereby puts \_\_\_\_\_ on notice that it has filed and is seeking an amendment to the above-stated plan. Copies of the proposed amendment are attached hereto. Pursuant to 7:50-5.4(c)6v, \_\_\_\_\_ are permitted to participate in the proposed amendment process.

It is T-Mobile's position that none of the proposed sites negatively impact the location of necessity for a previously approved site. Nevertheless, if, upon your review of the enclosed plan and supporting documentation, you have a contrary conclusion, we would respectfully request that you contact the undersigned to determine if a compromise can be worked out. The proposed PCS Amendment will be reviewed by the Pinelands Staff and Commission in accordance with their rules and regulations.

Very truly yours,

T-MOBILE

BY: \_\_\_\_\_

## **SIGNAL PROPAGATION MATERIAL**

This amended Plan includes signal propagation material for each proposed site. This material demonstrates that: 1) T-Mobile has designed its network to utilize the least number of facilities in the Pinelands; 2) that there is a need for each proposed facility to serve the local communications needs of the Pinelands and 3) to satisfy the other locational requirements of the CMP. These propagation maps are being provided for use of the Staff and its experts to analyze the proposed amendment and each of the proposed sites.

Please note with respect to sites 73 and 80 that no new RF propagation plots have been provided as these sites will be located on sites approved in the AT&T Amendment as site numbers 357 and 358 respectively.

## CODE COMPLIANCE

Pursuant to N.J.A.C. 7:50-5.4(c)6v, "all amendments shall be reviewed by the Commission according to the requirements set forth in (c)6 above and according to the procedures set forth in (c)6i thru iii above." The requirements of N.J.A.C. 7:50-5.4(c)6 are:

1. The amendment must be agreed to and submitted by all providers of the same type of service where feasible. N.J.A.C. 50:5.4(c)6.

The applicant has informed all known providers of wireless service with copies of the amendment by certified mail. These carriers have been informed of their ability to participate in the amendment. Further, this carrier believes that none of its proposed sites would negatively impact the location of or necessity for any sites previously approved by the Pinelands Commission.

It is therefore T-Mobile's position that it has satisfied both the current CMP regulations as well as the proposed amendments.

2. The plan must review alternate technologies that may become available for use in the near future.

T-Mobile has incorporated the treatment of alternate technologies set forth in the prior plans. Additionally, T-Mobile has provided a supplement to those treatments that specifically relates to Distributed Antenna Systems or DAS. The conclusion drawn is that a DAS system is not economically or technically feasible to permit T-Mobile to adequately provide seamless, reliable, ubiquitous service.

T-Mobile does, however, acknowledge that there are siting techniques that could utilize smaller towers and camouflaging techniques to reduce the visual impacts of sites located in areas that do not comply with the requirements of N.J.A.C. 7:50-5(c)4vi, or the environmental standards established in N.J.A.C. 7:50-6, or if a proposed new facility would have a significant visual impact on those uses and resources described in 4ii through 5v. T-Mobile agrees to work with the Commission Staff to develop these sites in accordance with the requirements of the CMP and the rights and duties they have pursuant to their Federal Communications Commission issued licenses. T-Mobile specifically, and not by way of limitation, reserves its rights to claim that the CMP regulations, on their face and/or as applied, are prohibitory and/or discriminatory pursuant to the laws, statutes and regulations of the United States and/or the State of New Jersey.

3. The plan must show the approximate location of all proposed facilities.

The proposed amendment satisfies this requirement by providing the latitude and longitude of each site. The site locations have been reviewed by both the Applicant and the Commission Staff and satisfy the requirement to show the approximate locations.

4. The plan must include five (5) and ten (10) year horizons.

T-Mobile intends to build these sites as quickly as it can. Therefore, all of the proposed sites are intended to be built within five (5) years.

5. The plan must demonstrate that every facility is needed to provide adequate service.

T-Mobile adopts the language used in the previously approved plans as demonstrating compliance with the requirement. Additionally, T-Mobile has provided the Radio Frequency propagation maps that demonstrate the need and the required location (or area) for each site.

6. The plan must satisfy the requirements of N.J.A.C. 7:50-5.4(c)6 by demonstrating that the proposed sites are the least number necessary.

The mapping and radio frequency mapping demonstrate compliance. Additionally, the applicant repeats its understanding that it is willing to work with the Commission to utilize multiple shorter and camouflaged towers. (Reserving its rights as stated before).

7. The plan must demonstrate that the antenna utilizes an existing communications or other structure to the extent practicable.

T-Mobile has sent its consultant/employees into the field to look for existing structures and suitable section vi sites in the area of all proposed facilities. In every case where an existing structure or suitable section vi site has been found, it has been so noted in the site by site narrative and in the Summary Table. Further, when applications are made for specific sites, the applicant is required to show that there are no existing suitable sites.

8. The plan must demonstrate or note the need to demonstrate when actual siting of facilities is proposed that if a new supporting structure is to be constructed, it can probably be sited according to the six criteria in N.J.A.C. 7:50-5.4(c)4.

9. The plan must demonstrate or note the need to demonstrate when actual siting of facilities is proposed that it will comply with section (c)2.

This regulation requires that T-Mobile permit other carriers to collocate on the proposed facilities. T-Mobile reaffirms herein the collocation language previously approved.

10. If it reduces the number of facilities to be developed, shared service shall be part of the plan unless precluded by federal law.

T-Mobile adopted and reaffirms the positions taken in the previously approved plans.

T-Mobile Coverage Without OCE002

NJ0:

NJ08413

NJ08485E

OCE012

NJ08280B

NJ08271A

OCE006

NJ08328B

NJ08390C

NJ08075A

NJ08

OCE002

OCE003

NJ08077B

OCE017

OCE032

OCE0

OCE027



**T-Mobile Sites**

- Future Sites (Red circle)
- On-Air Sites (Green circle)
- SC Approved Sites (Black triangle)

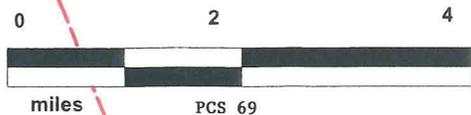
**T-Mobile Coverage**

- Coverage @ -84 dBm (Blue shaded area)
- Coverage @ -95 dBm (Yellow shaded area)

**Water** (Blue hatched area)

**Major Roads** (Black line)

T-Mobile Coverage With OCE002



**T-Mobile Sites**

- Future Sites
- On-Air Sites
- ▲ SC Approved Sites

**T-Mobile Coverage**

- Coverage @ -84 dBm
- Coverage @ -95 dBm
- Water
- Major Roads

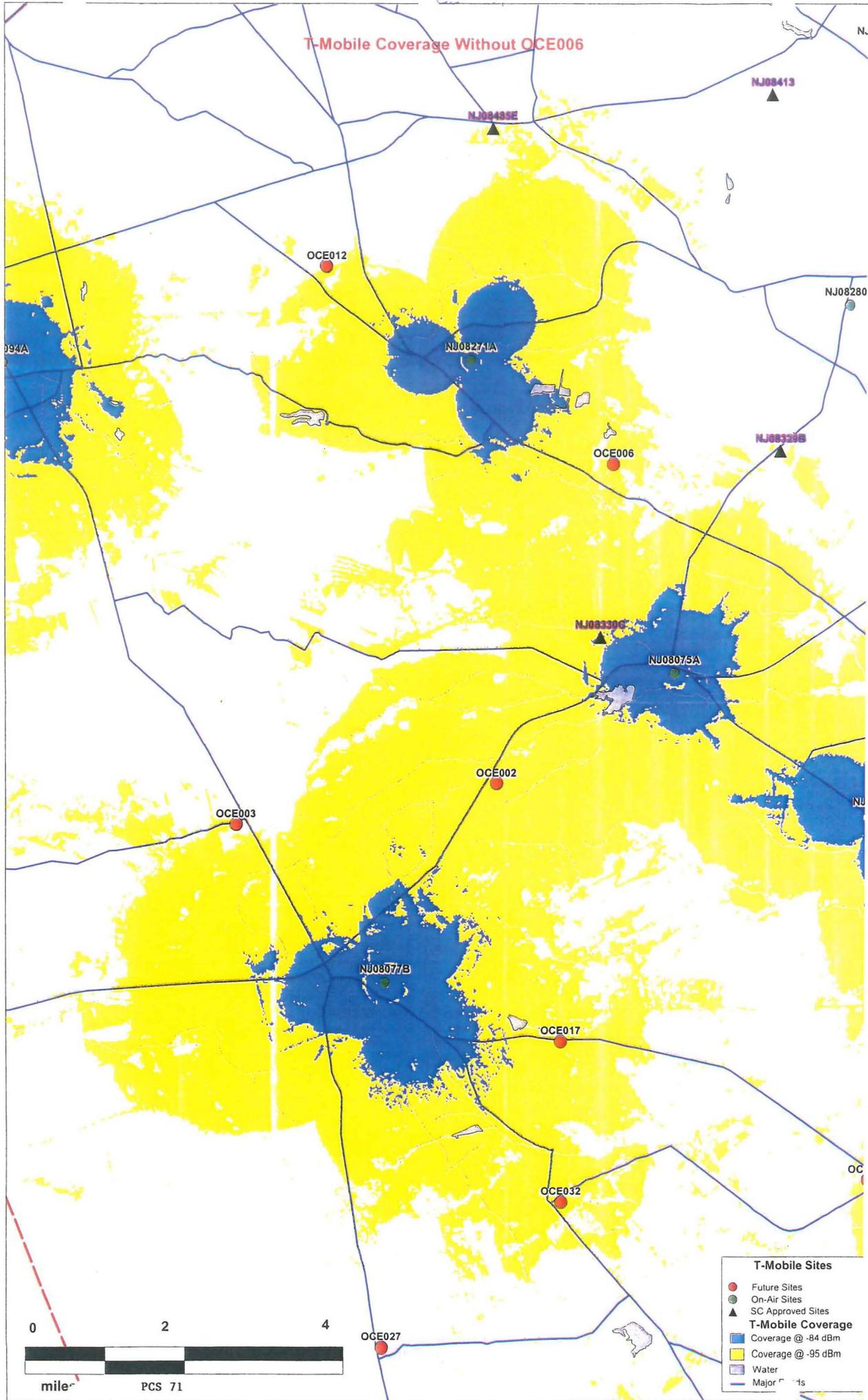
# T-Mobile Coverage Without OCE003



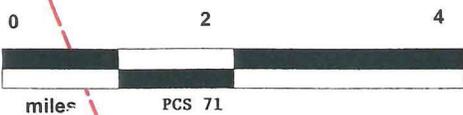
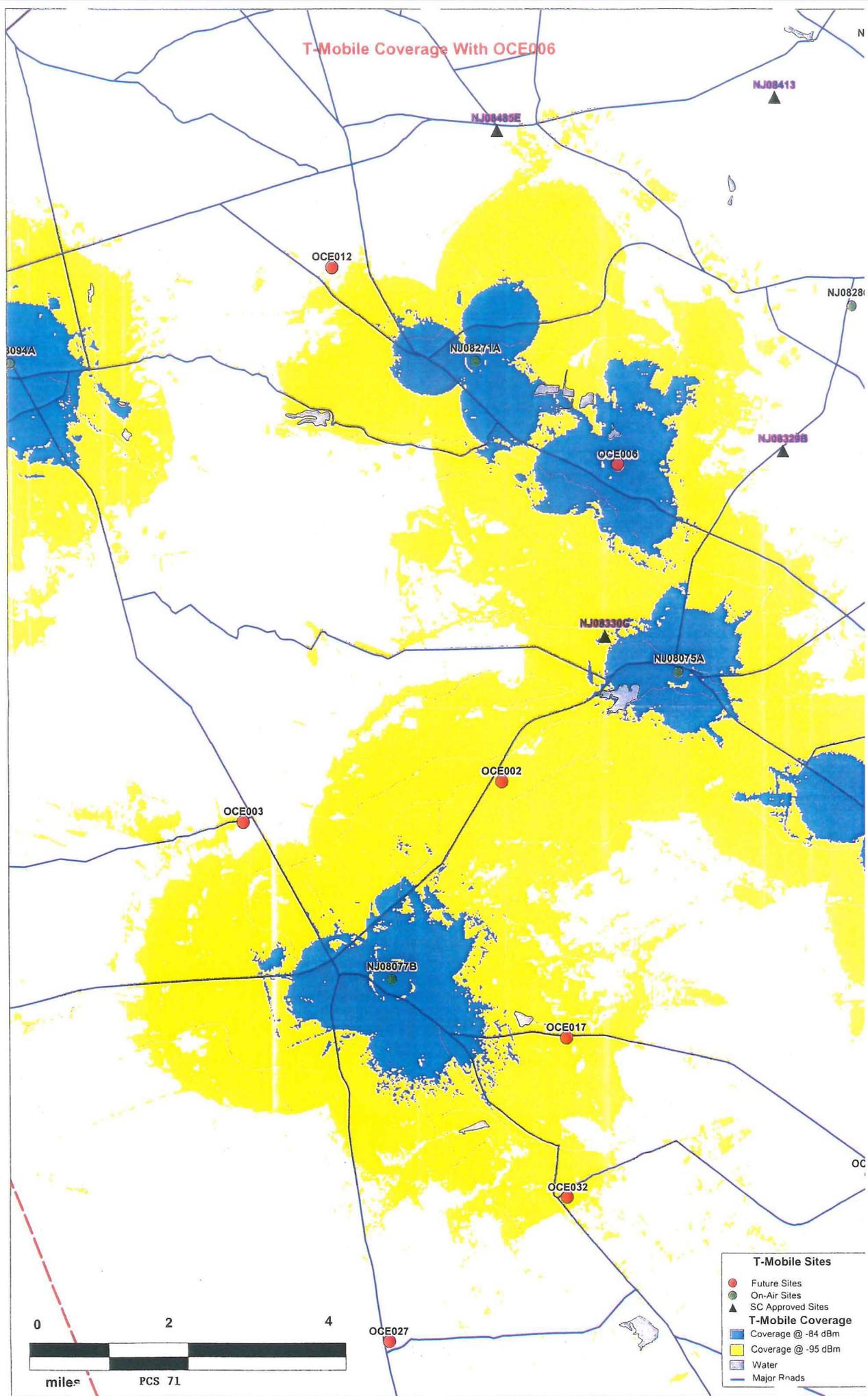
T-Mobile Coverage With OCE003



T-Mobile Coverage Without OCE006



T-Mobile Coverage With OCE006



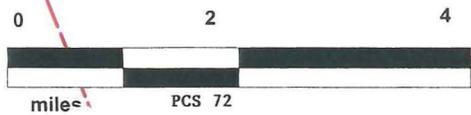
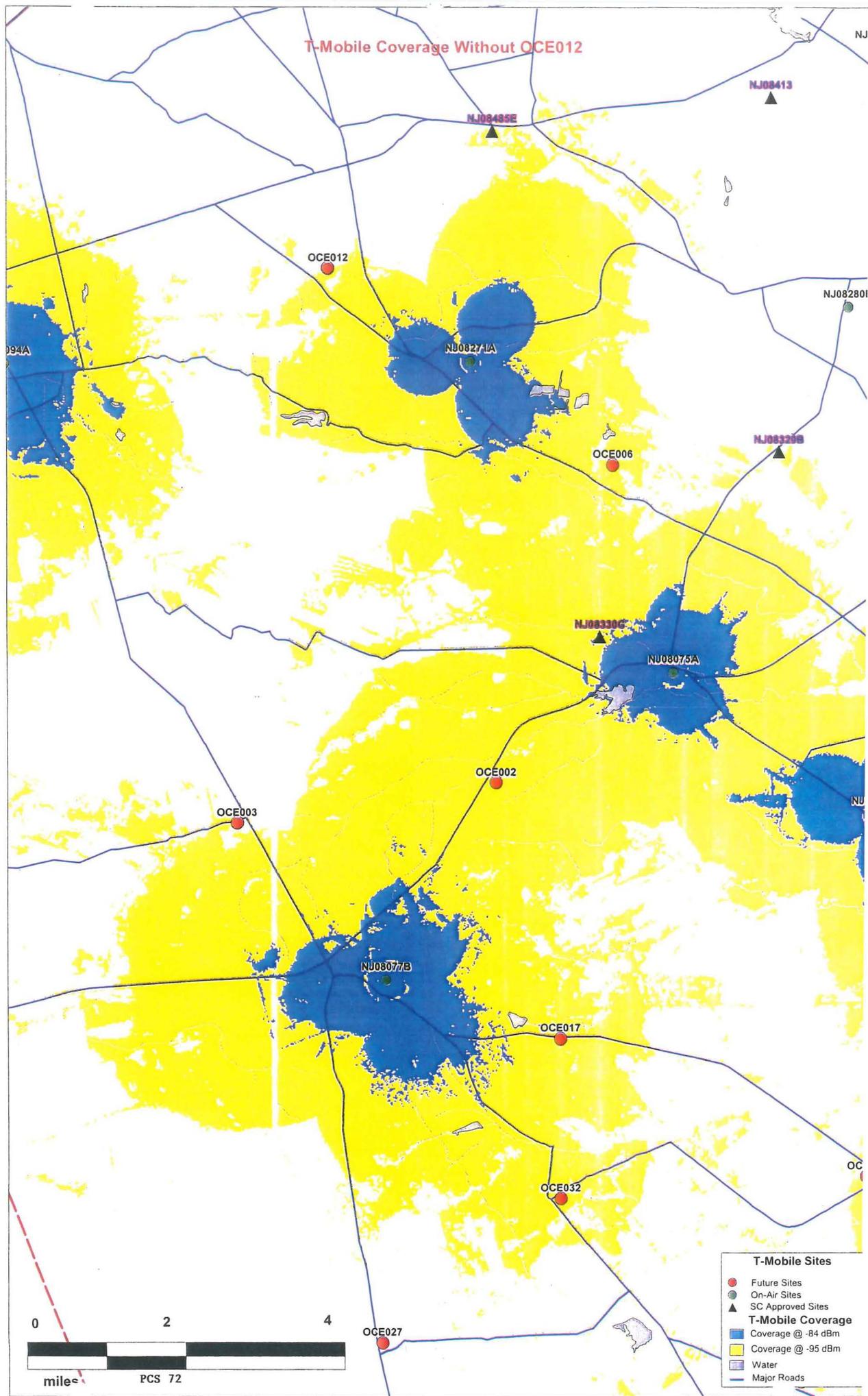
**T-Mobile Sites**

- (Red) Future Sites
- (Green) On-Air Sites
- ▲ (Black) SC Approved Sites

**T-Mobile Coverage**

- (Yellow) Coverage @ -84 dBm
- (Blue) Coverage @ -95 dBm
- (Light Blue) Water
- (Blue) Major Roads

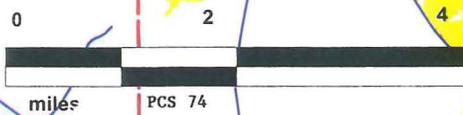
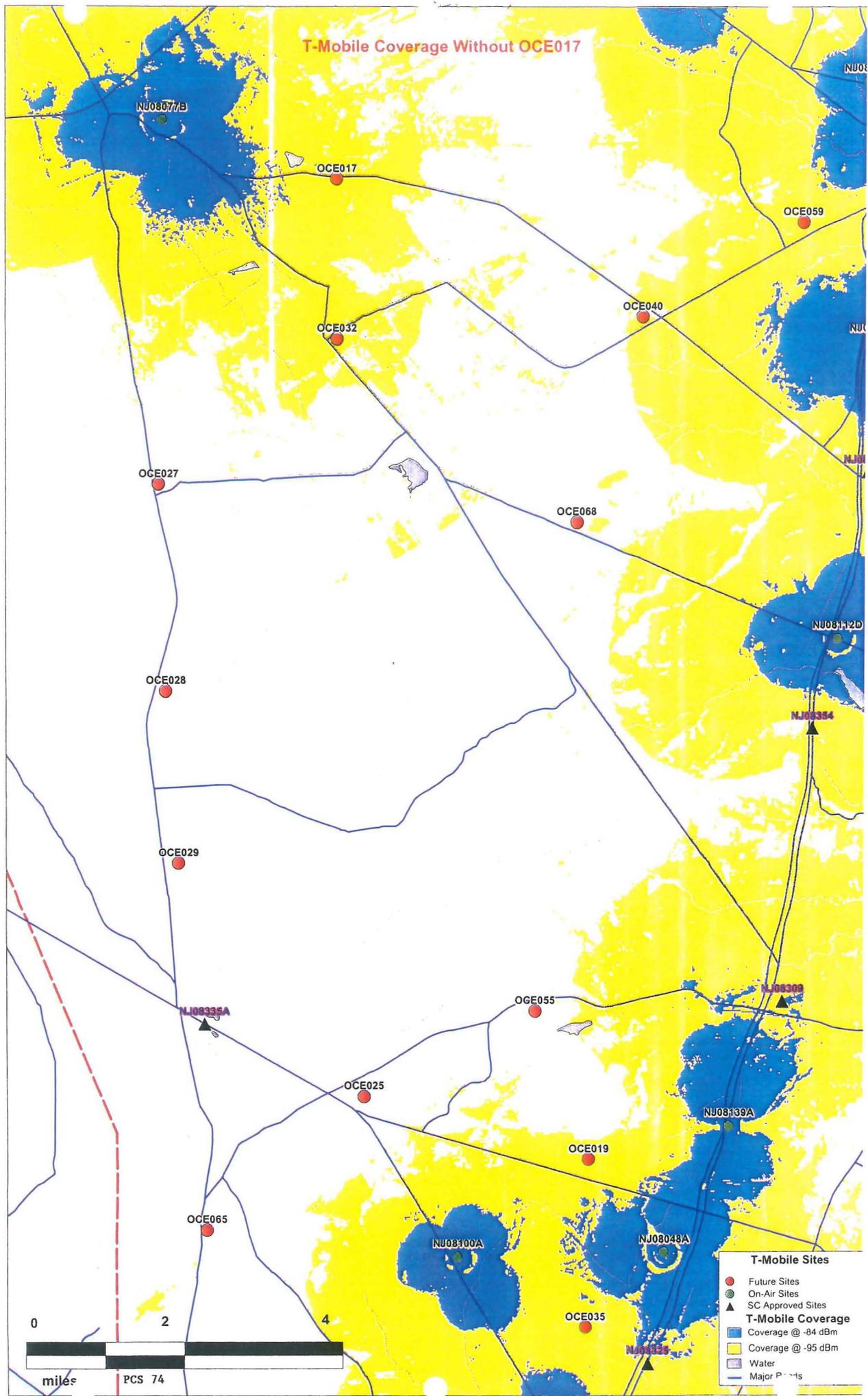
T-Mobile Coverage Without OCE012



- T-Mobile Sites**
- Future Sites
  - On-Air Sites
  - ▲ SC Approved Sites
- T-Mobile Coverage**
- Coverage @ -84 dBm
  - Coverage @ -95 dBm
- Water
- Major Roads



# T-Mobile Coverage Without OCE017



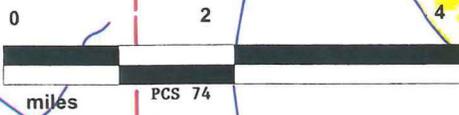
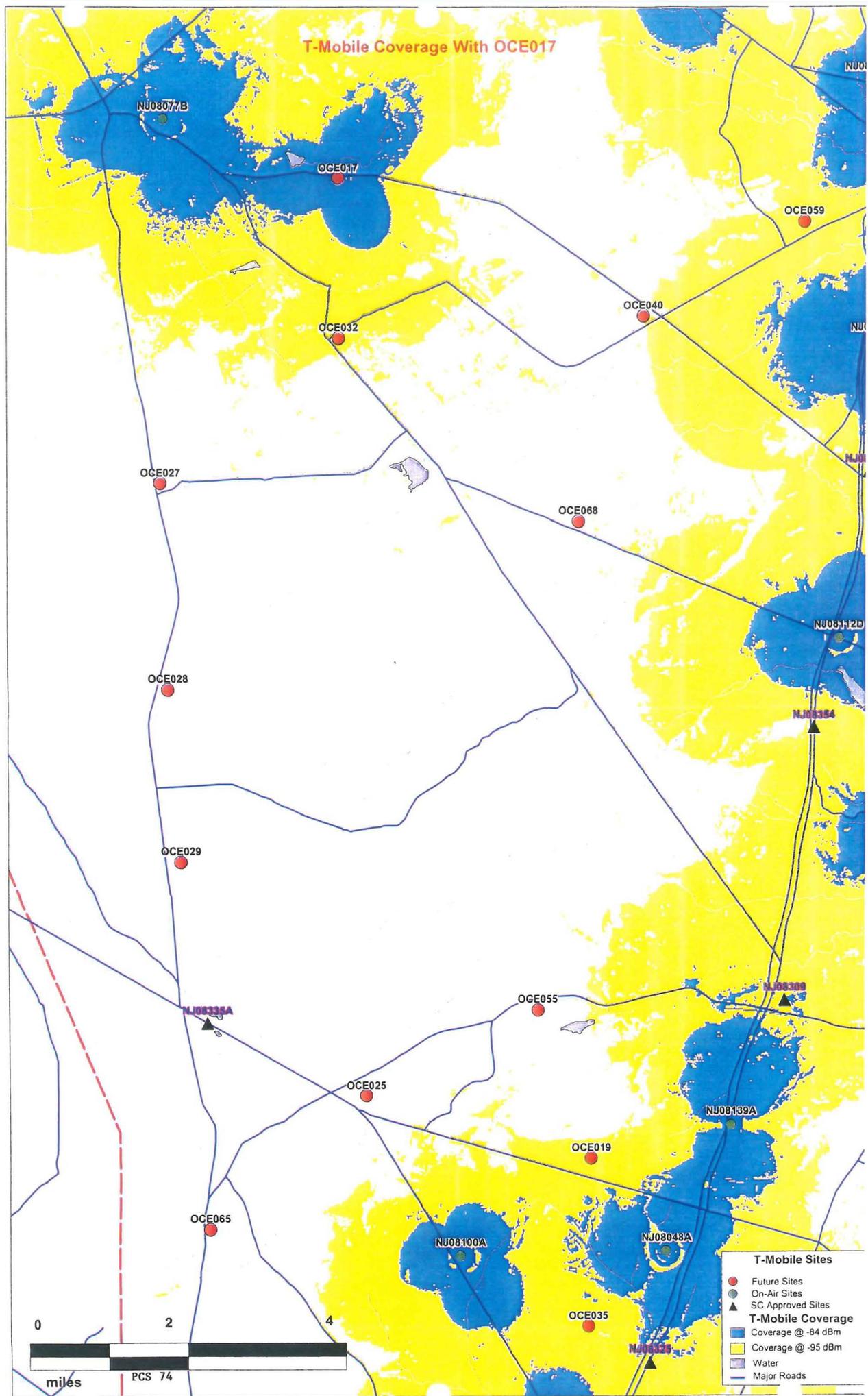
**T-Mobile Sites**

- (Red) Future Sites
- (Green) On-Air Sites
- ▲ (Black) SC Approved Sites

**T-Mobile Coverage**

- (Yellow) Coverage @ -84 dBm
- (Blue) Coverage @ -95 dBm
- (Light Blue) Water
- (Black) Major Roads

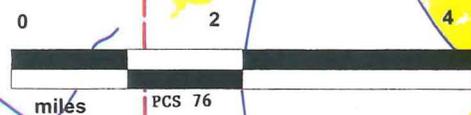
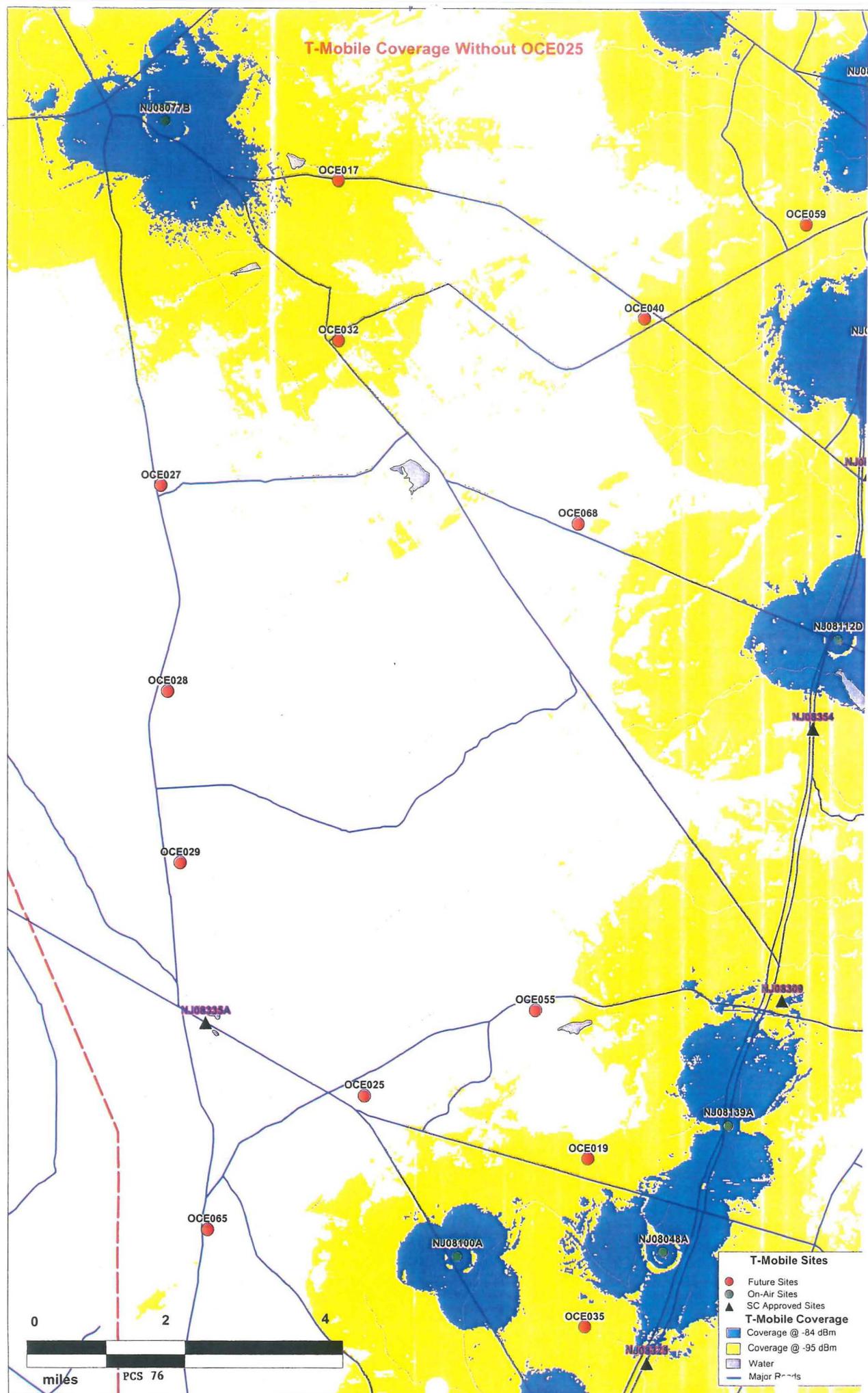
# T-Mobile Coverage With OCE017





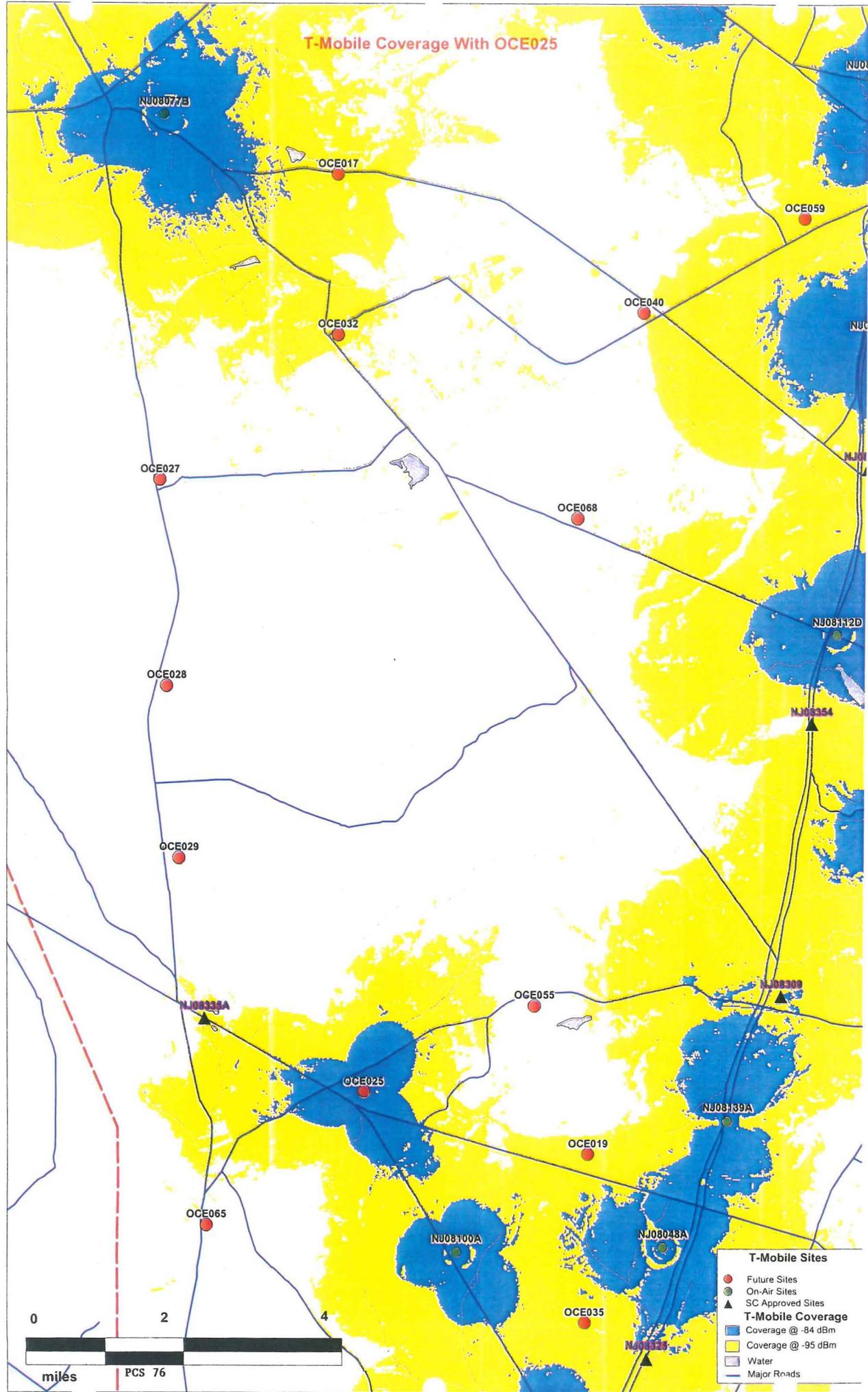


# T-Mobile Coverage Without OCE025

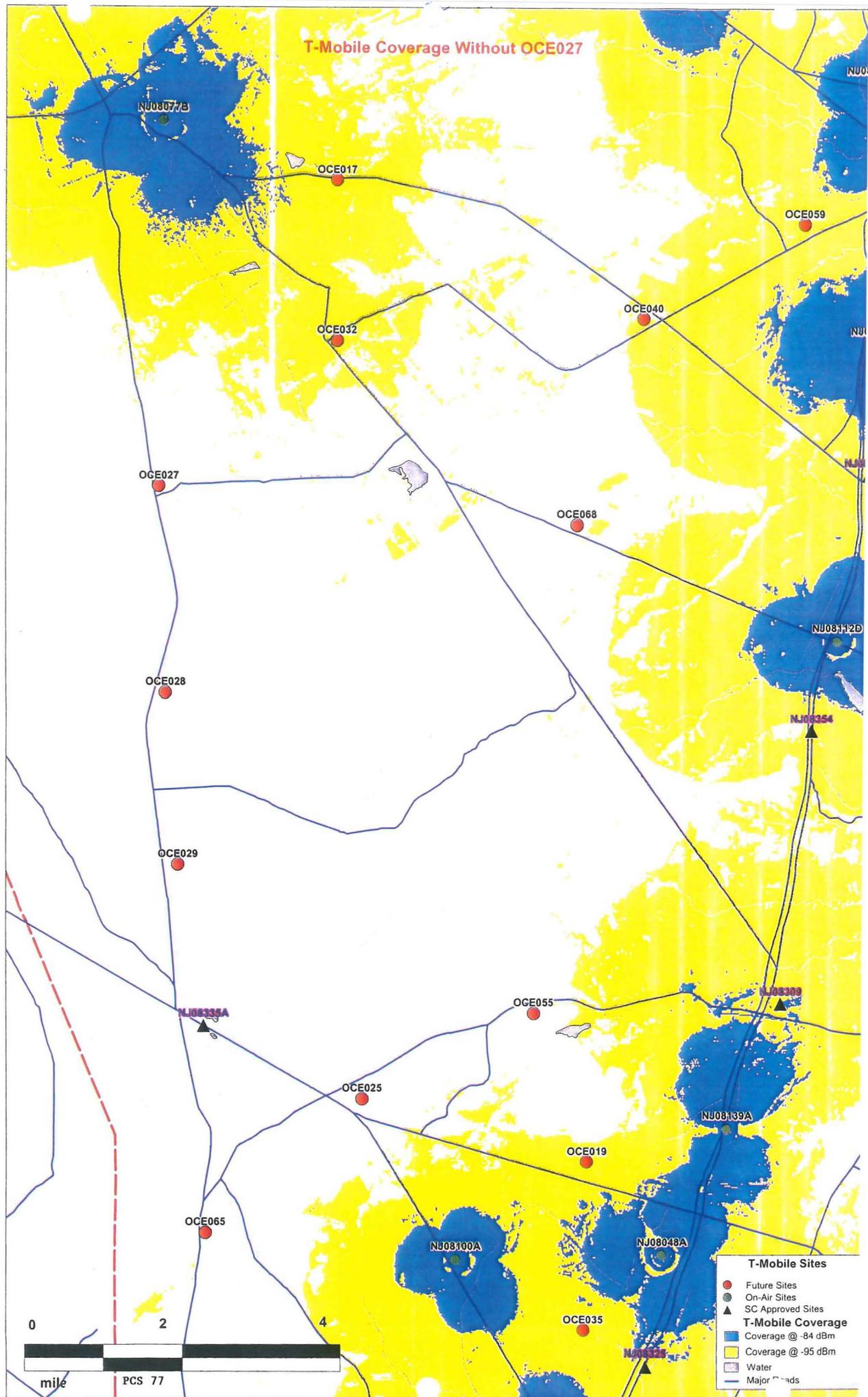


- T-Mobile Sites**
- Future Sites
  - On-Air Sites
  - ▲ SC Approved Sites
- T-Mobile Coverage**
- Coverage @ -84 dBm
  - Coverage @ -95 dBm
- Water
- Major Roads

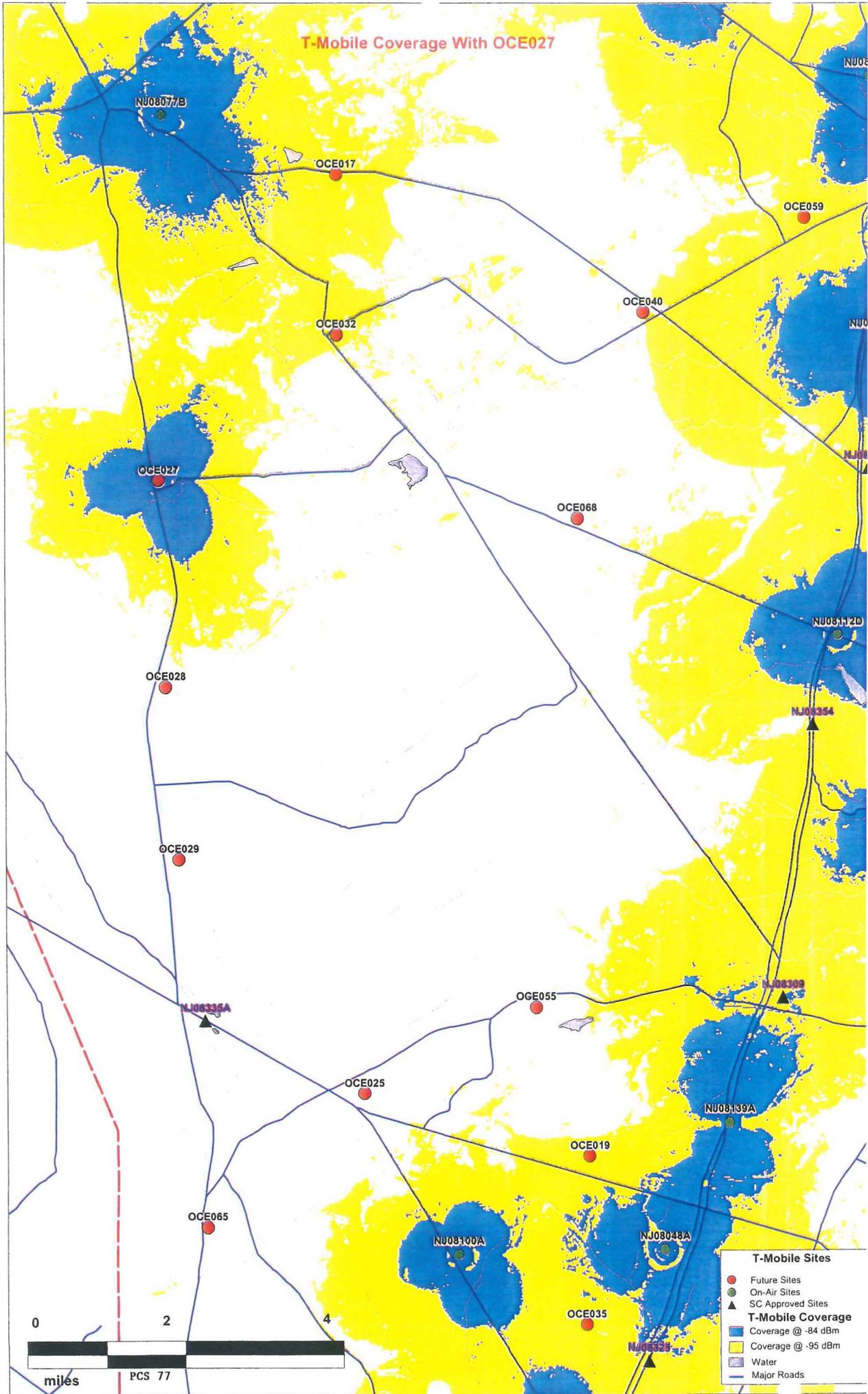
# T-Mobile Coverage With OCE025



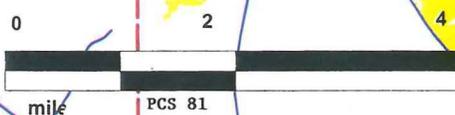
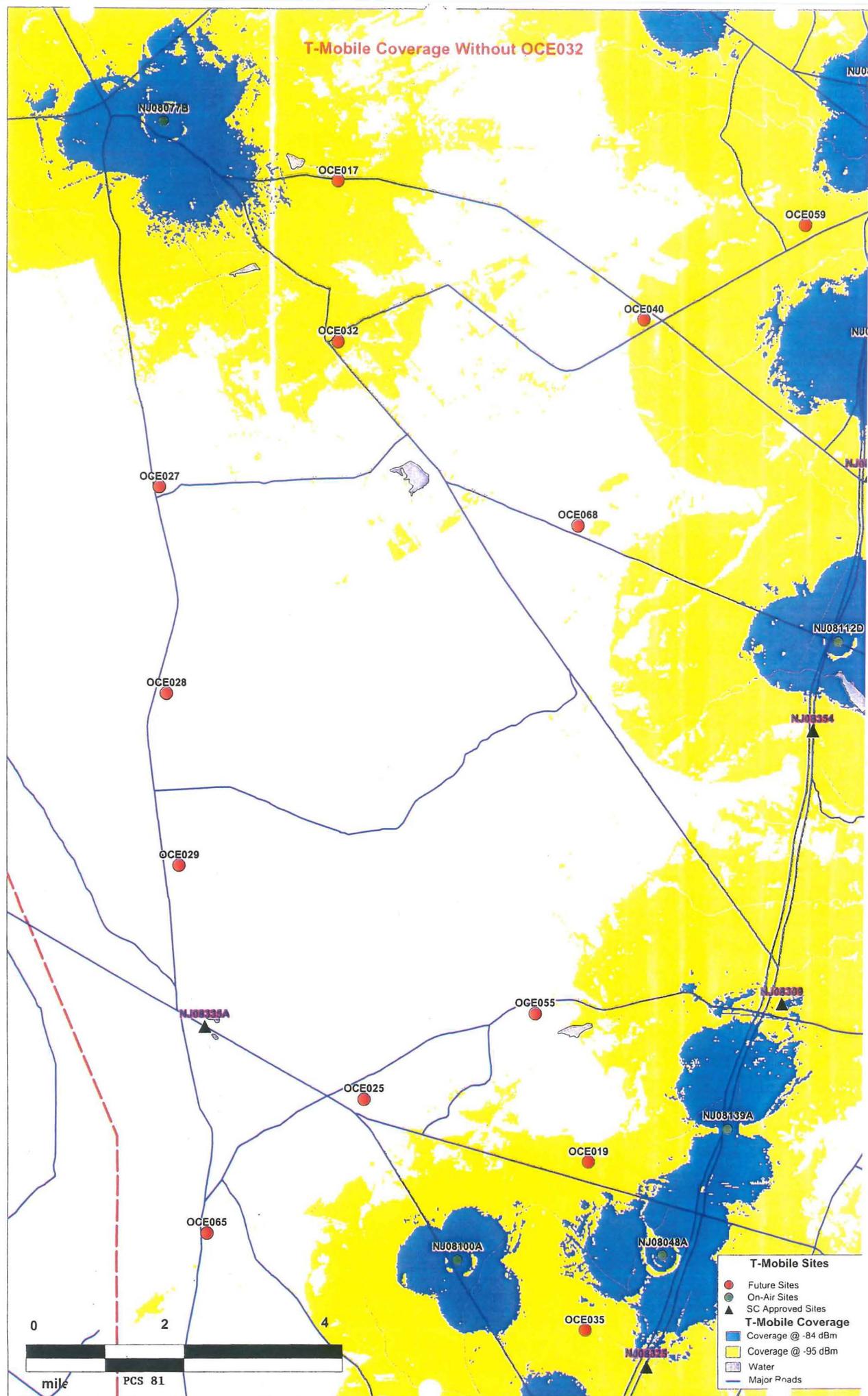
# T-Mobile Coverage Without OCE027



T-Mobile Coverage With OCE027



# T-Mobile Coverage Without OCE032



**T-Mobile Sites**

- Future Sites
- On-Air Sites
- ▲ SC Approved Sites

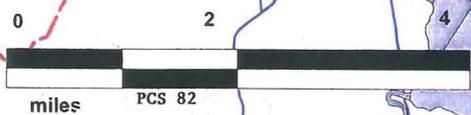
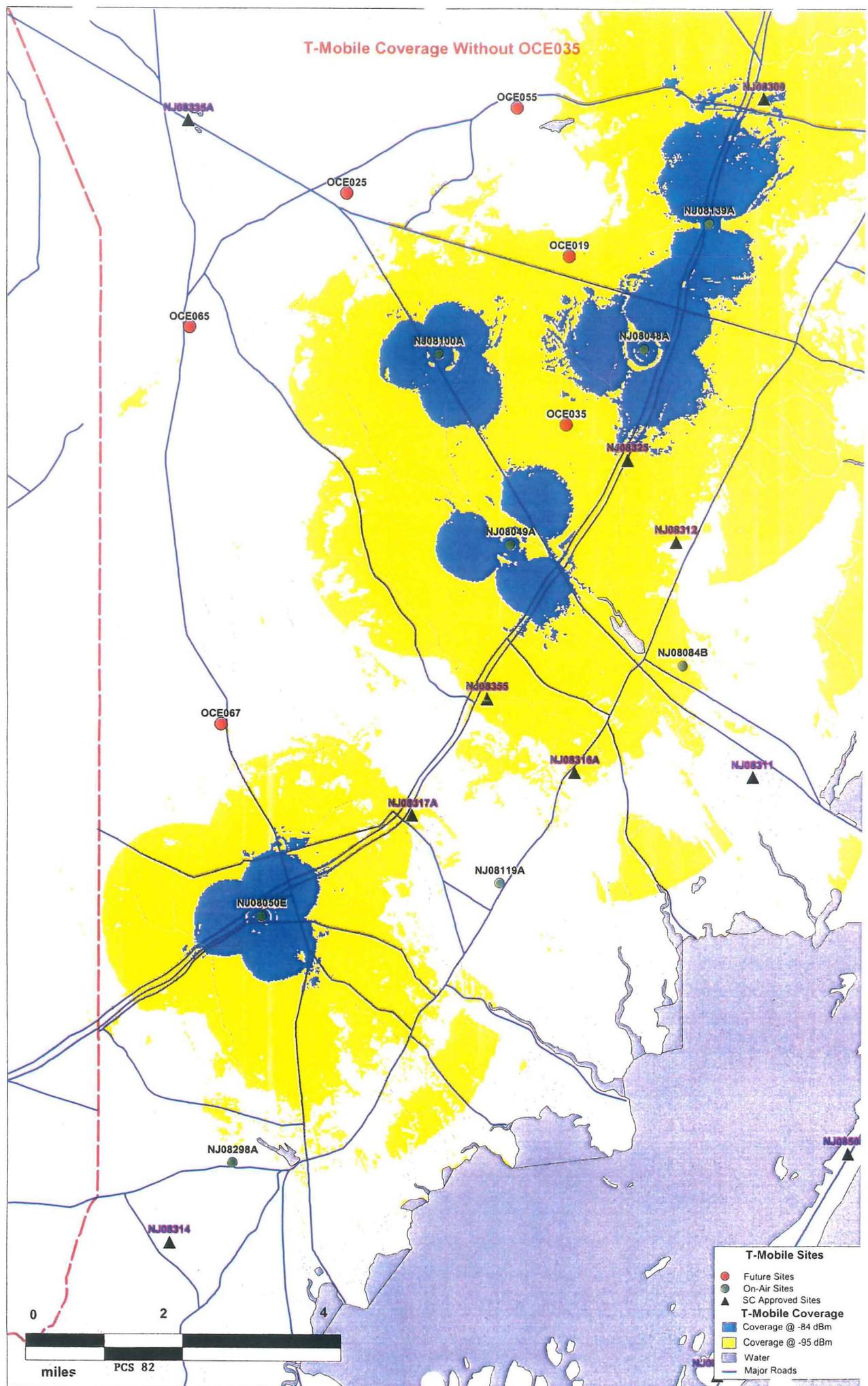
**T-Mobile Coverage**

- Coverage @ -84 dBm
- Coverage @ -95 dBm

Water  
Major Roads



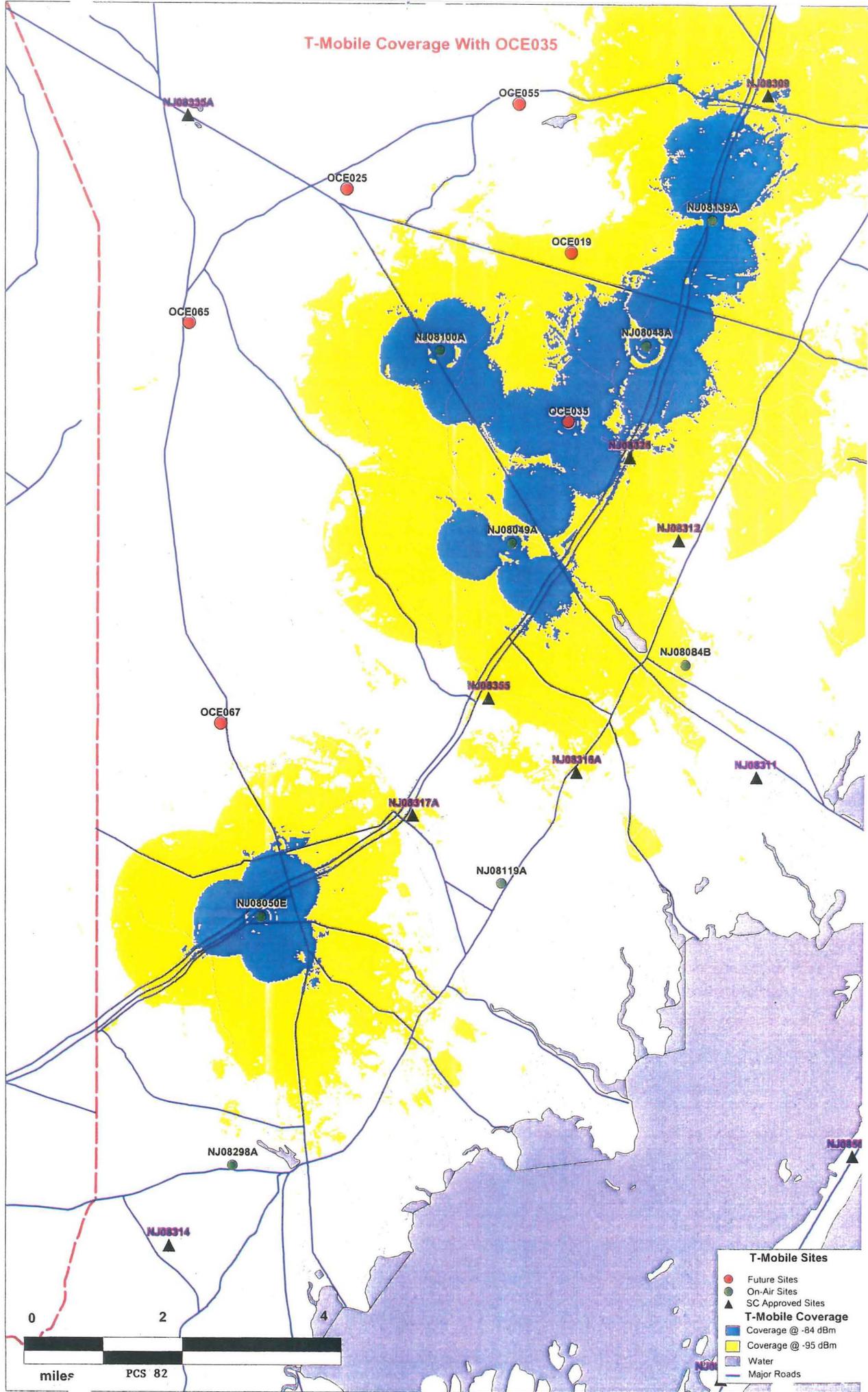
# T-Mobile Coverage Without OCE035



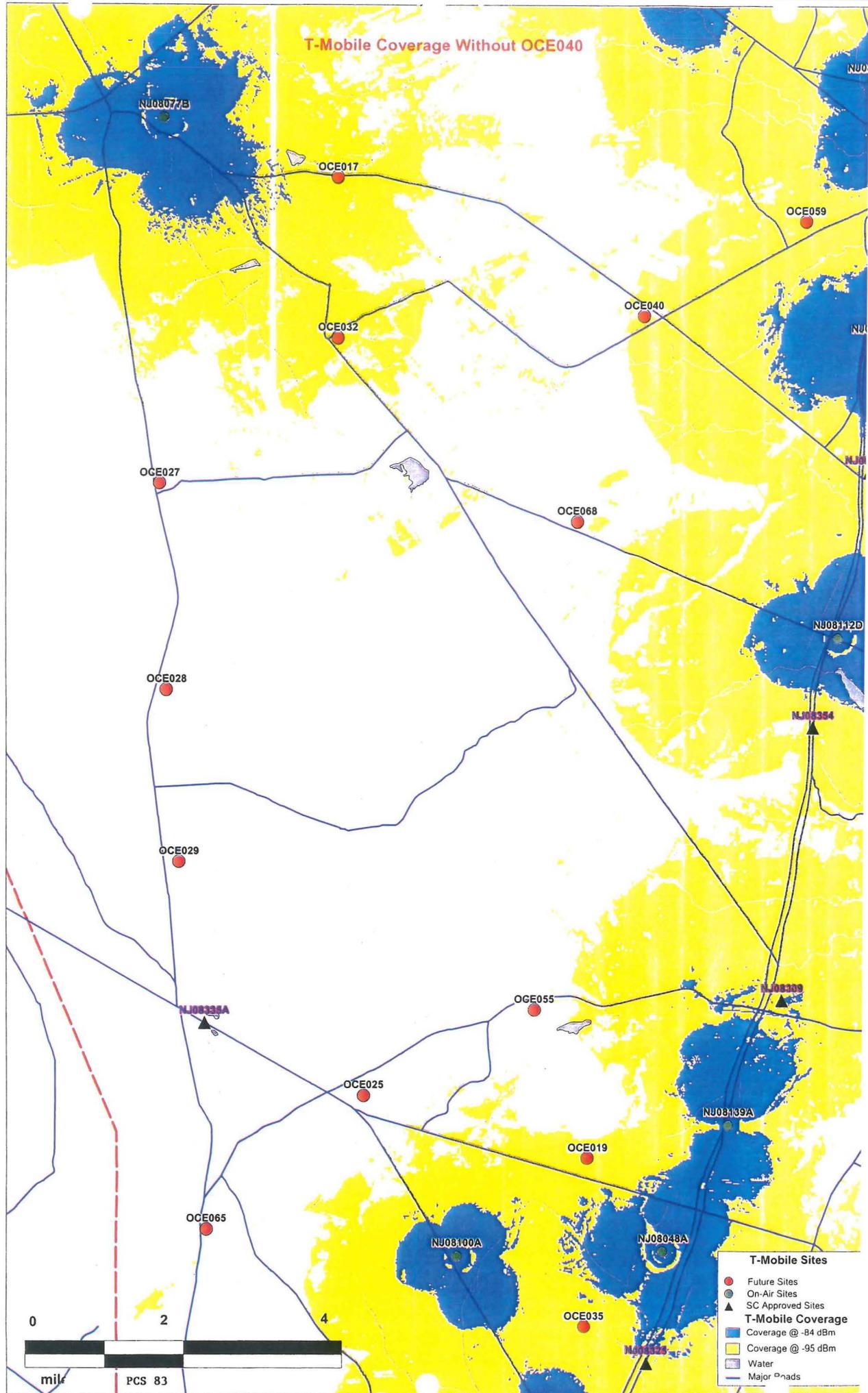
PCS 82

- T-Mobile Sites**
- Future Sites
  - On-Air Sites
  - SC Approved Sites
- T-Mobile Coverage**
- Coverage @ -84 dBm
  - Coverage @ -95 dBm
- Other Features**
- Water
  - Major Roads

# T-Mobile Coverage With OCE035

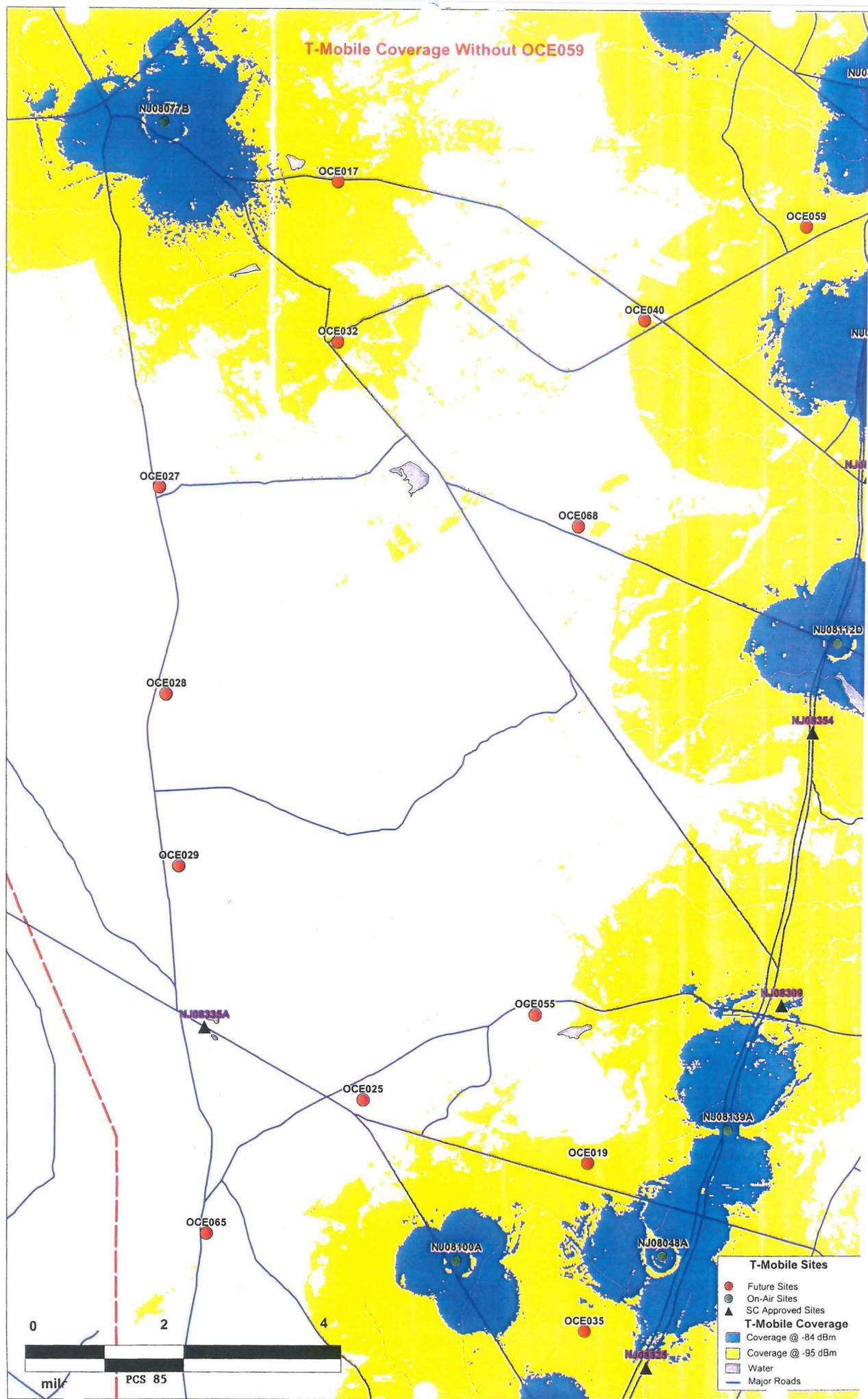


# T-Mobile Coverage Without OCE040

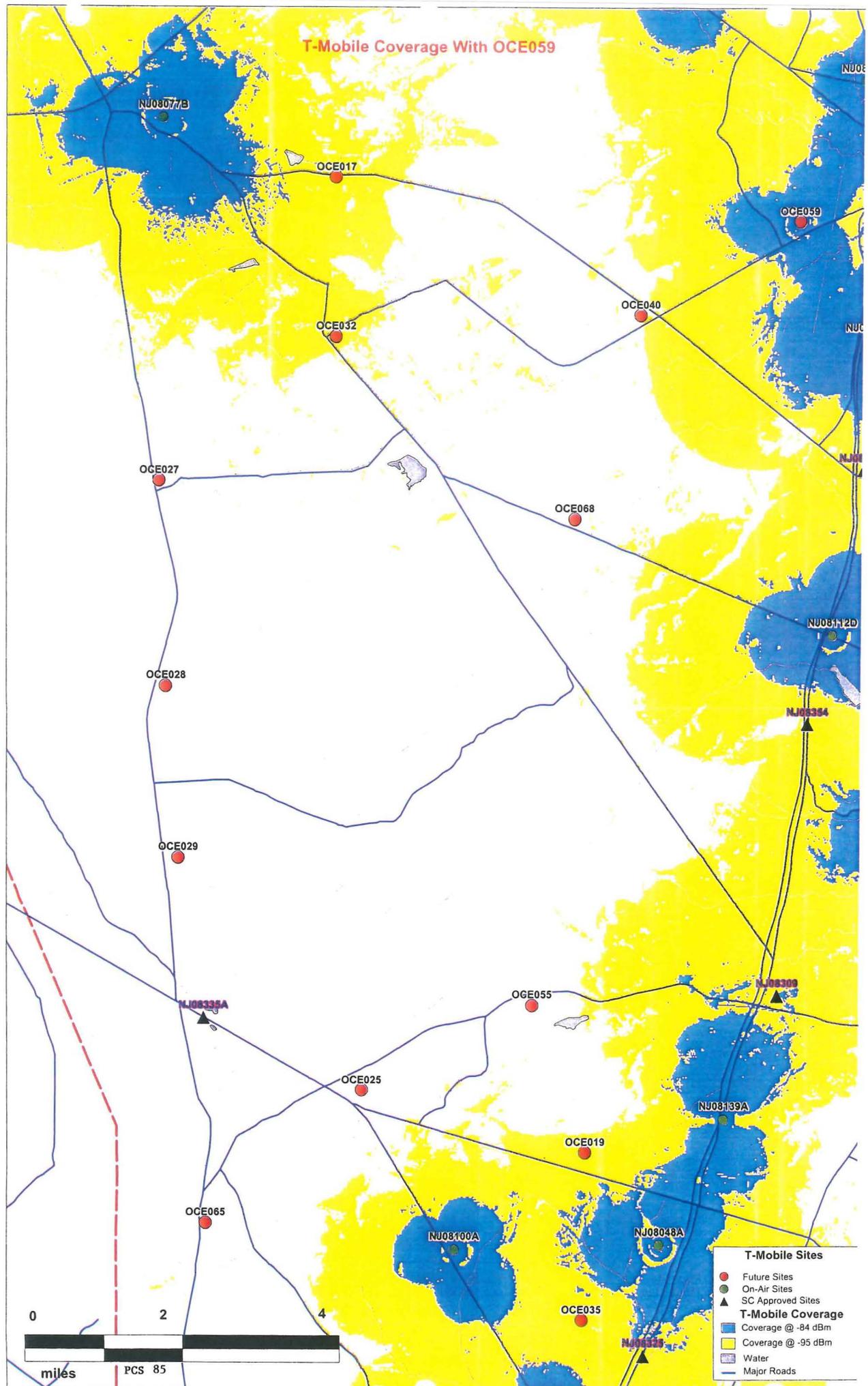




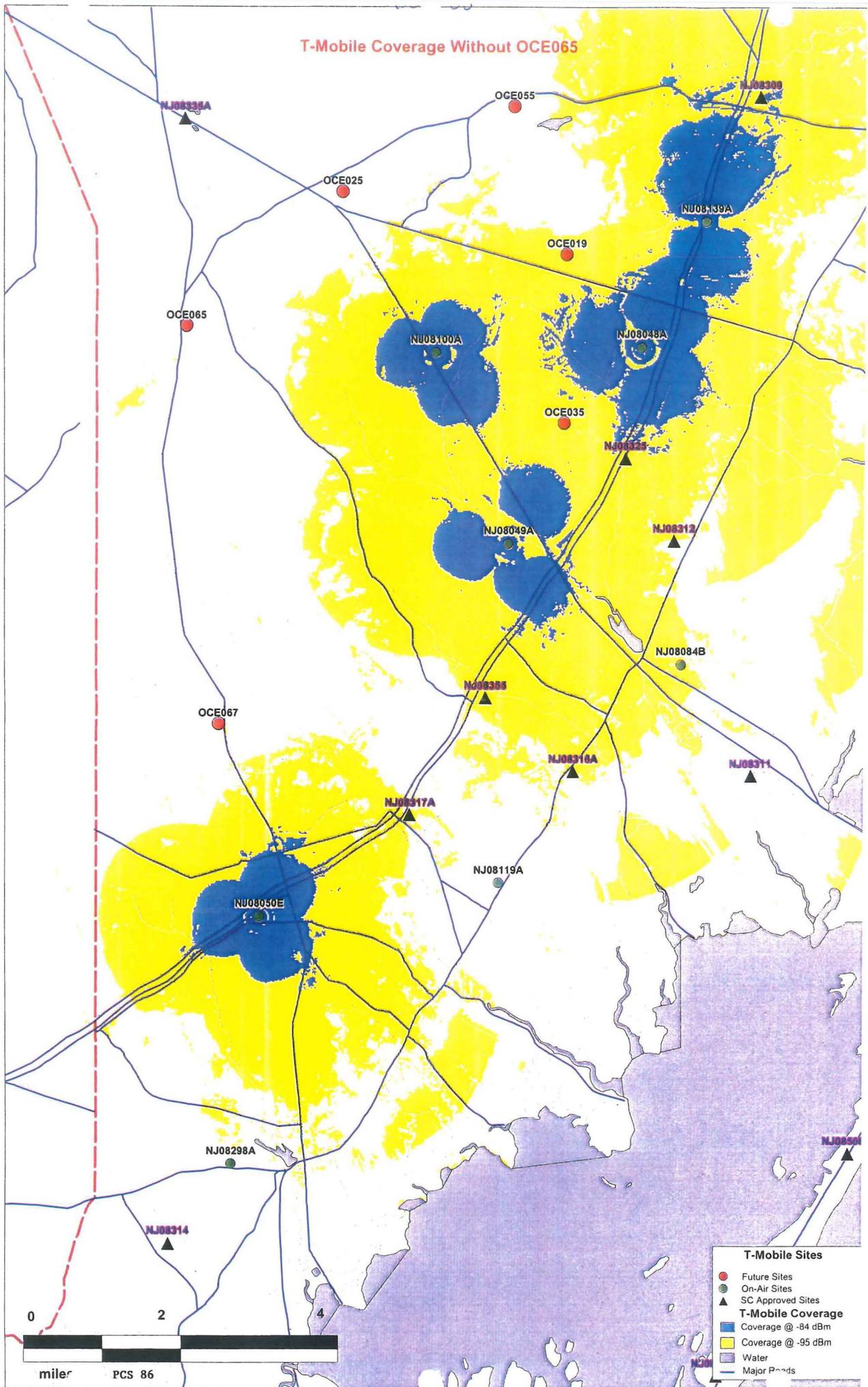
# T-Mobile Coverage Without OCE059



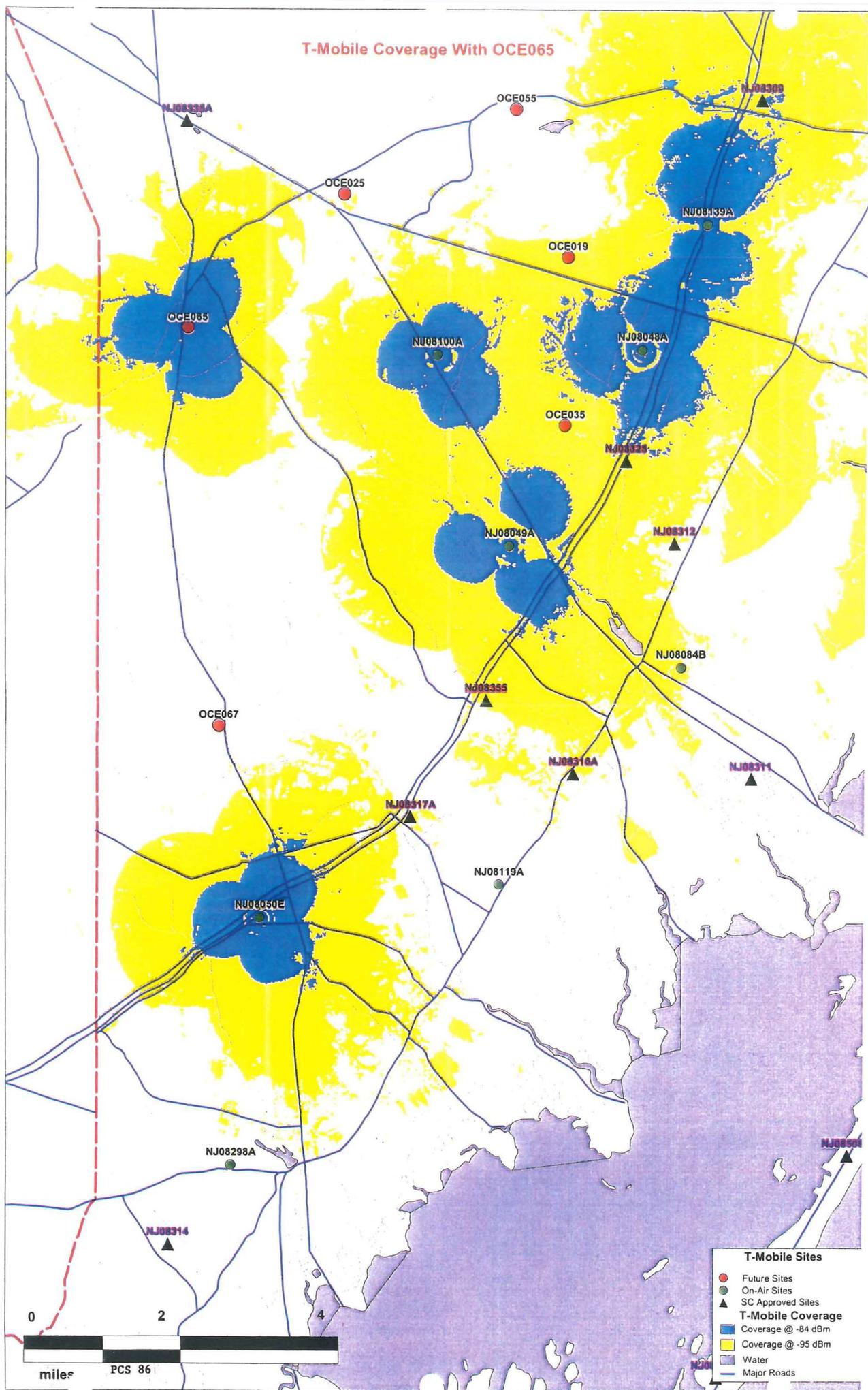
# T-Mobile Coverage With OCE059



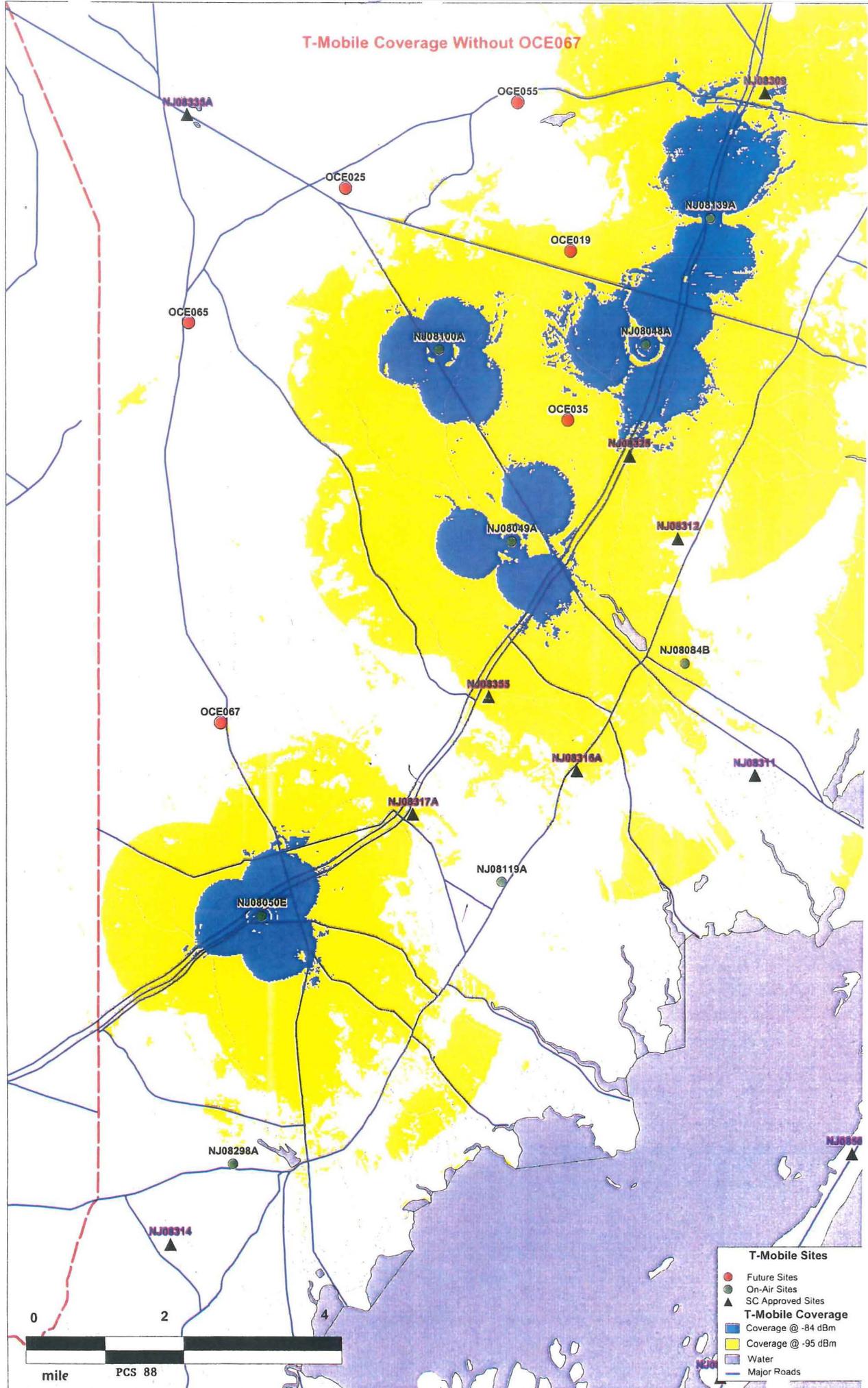
# T-Mobile Coverage Without OCE065



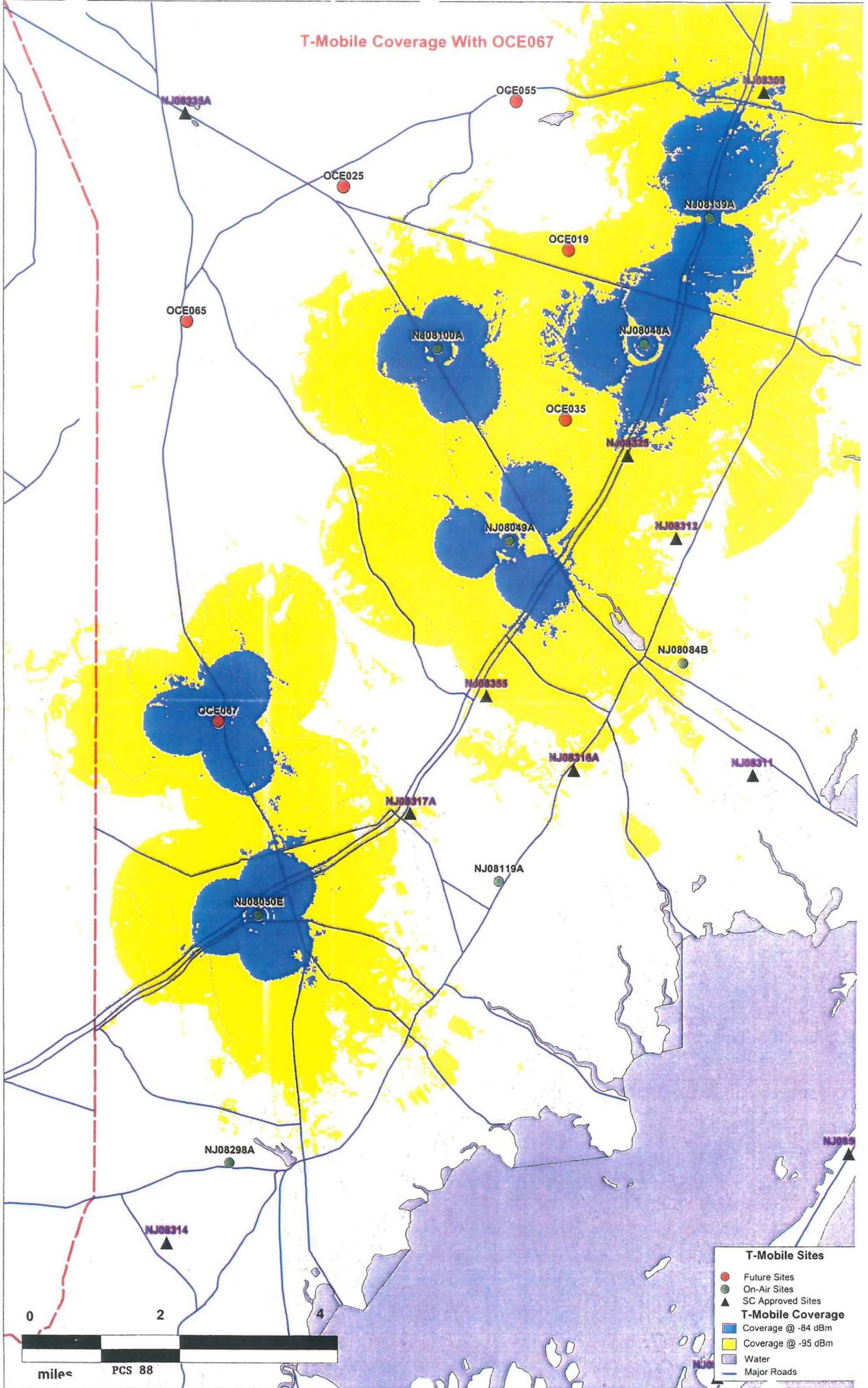
# T-Mobile Coverage With OCE065

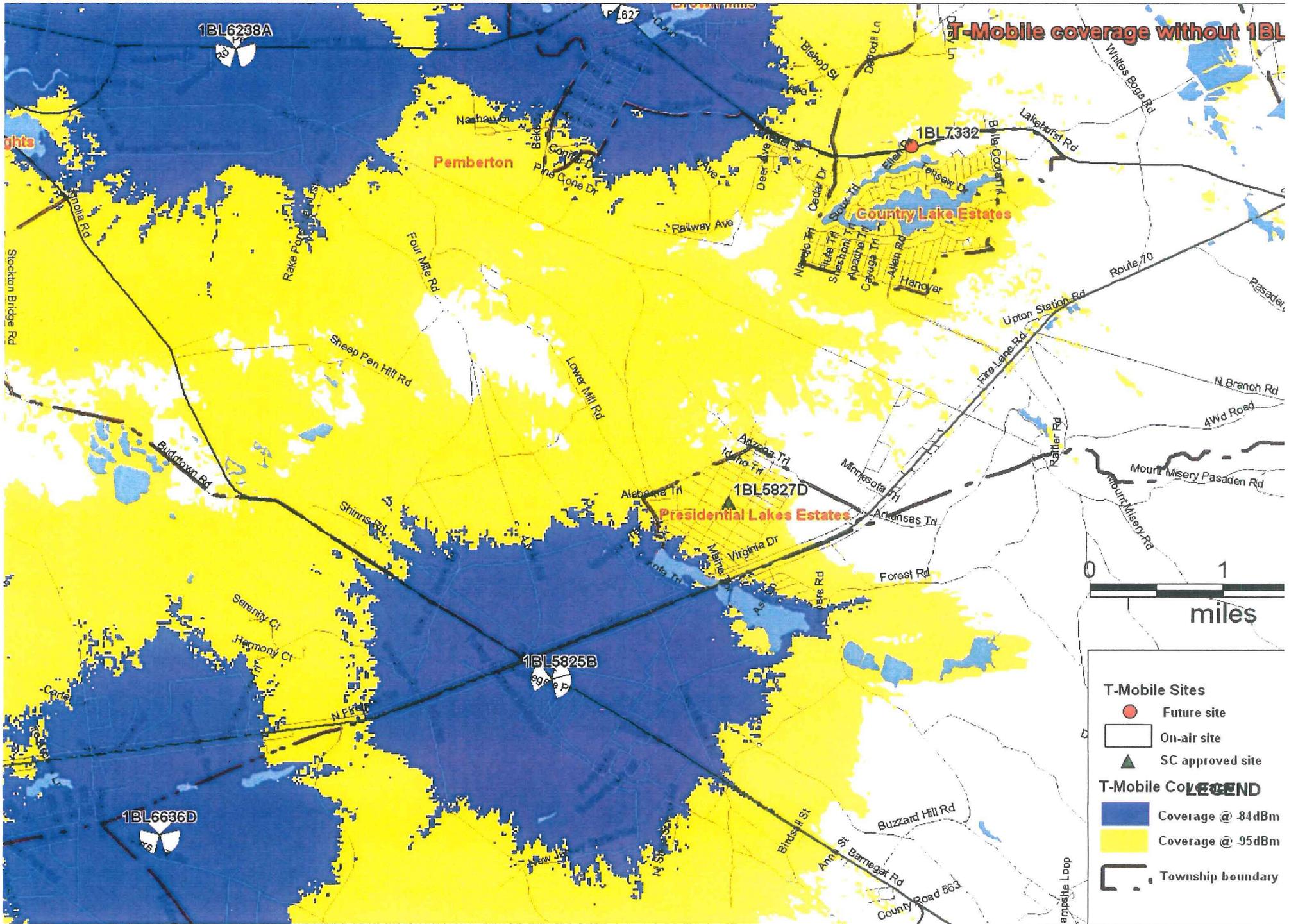


# T-Mobile Coverage Without OCE067



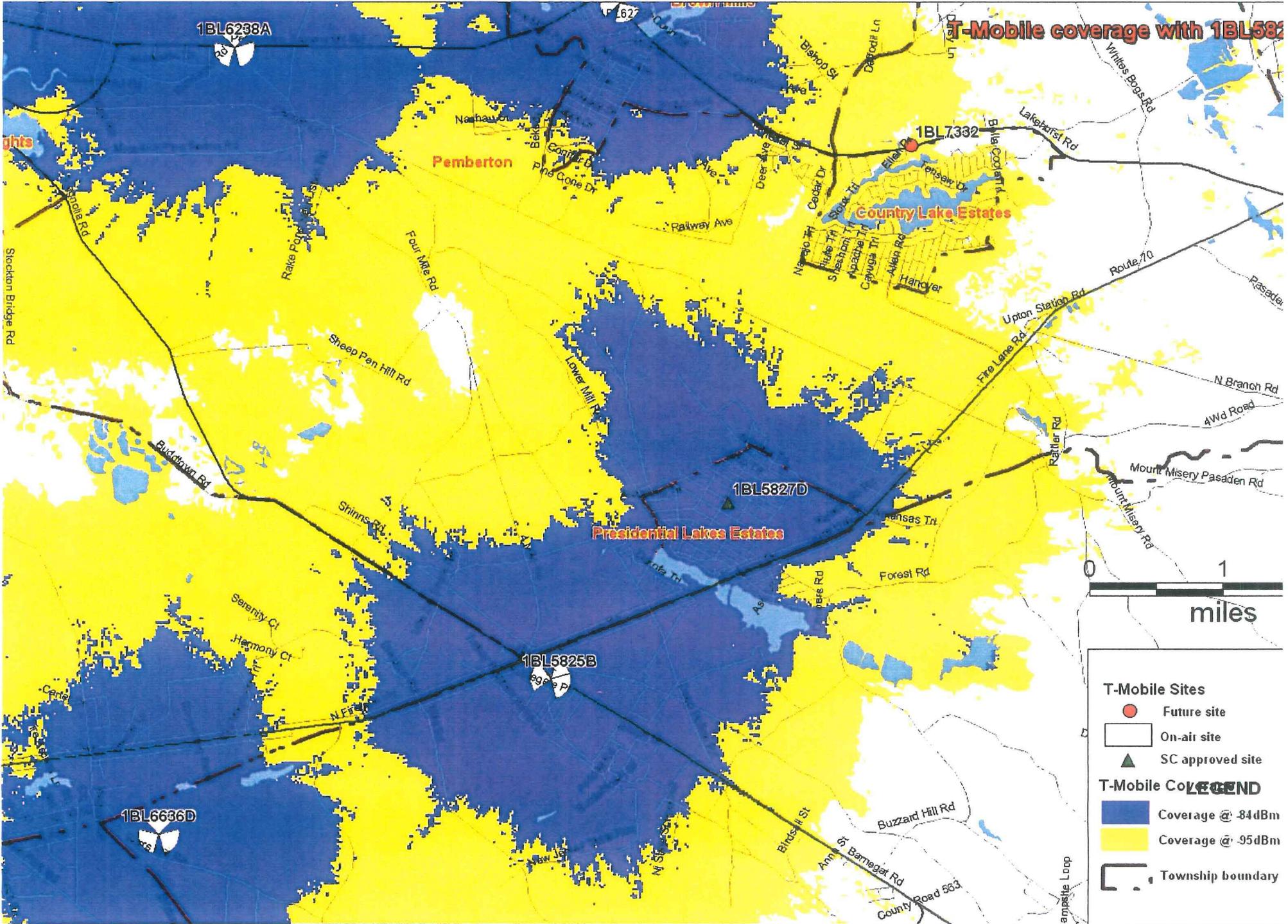
T-Mobile Coverage With OCE067





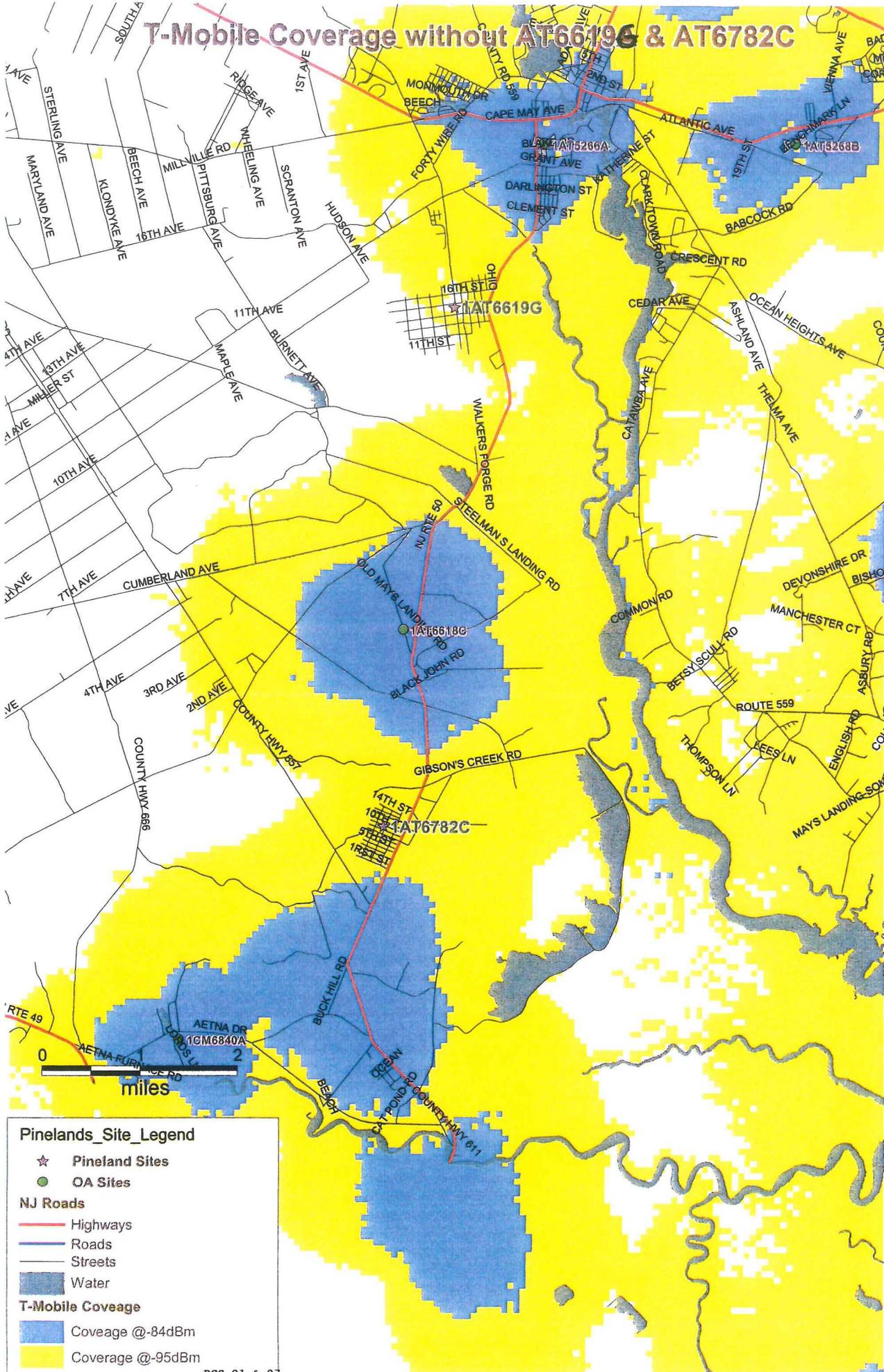
SITE # 90

T-Mobile coverage with 1BL5827D



- T-Mobile Sites**
- Future site
  - On-air site
  - ▲ SC approved site
- T-Mobile Coverage**
- Coverage @ -84dBm
  - Coverage @ -95dBm
- LEGEND**
- ▭ Township boundary

# T-Mobile Coverage without AT6619G & AT6782C



**Pinelands\_Site\_Legend**

- ☆ Pineland Sites
- OA Sites

**NJ Roads**

- Highways
- Roads
- Streets

**Water**

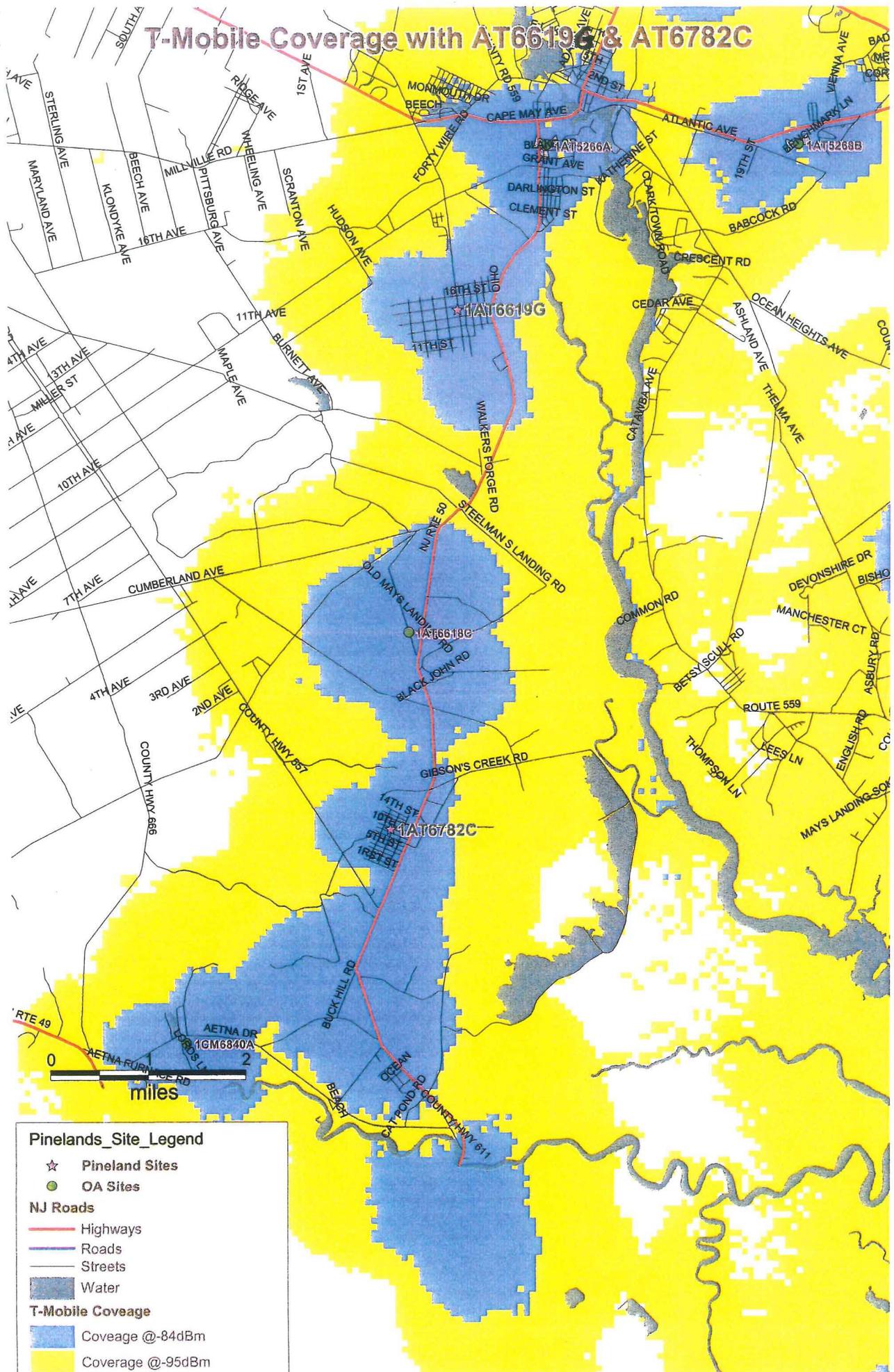
- Water

**T-Mobile Coverage**

- Coverage @-84dBm
- Coverage @-95dBm

PCS 91 & 97

# T-Mobile Coverage with AT6619G & AT6782C



**Pinelands\_Site\_Legend**

- ☆ Pineland Sites
- OA Sites

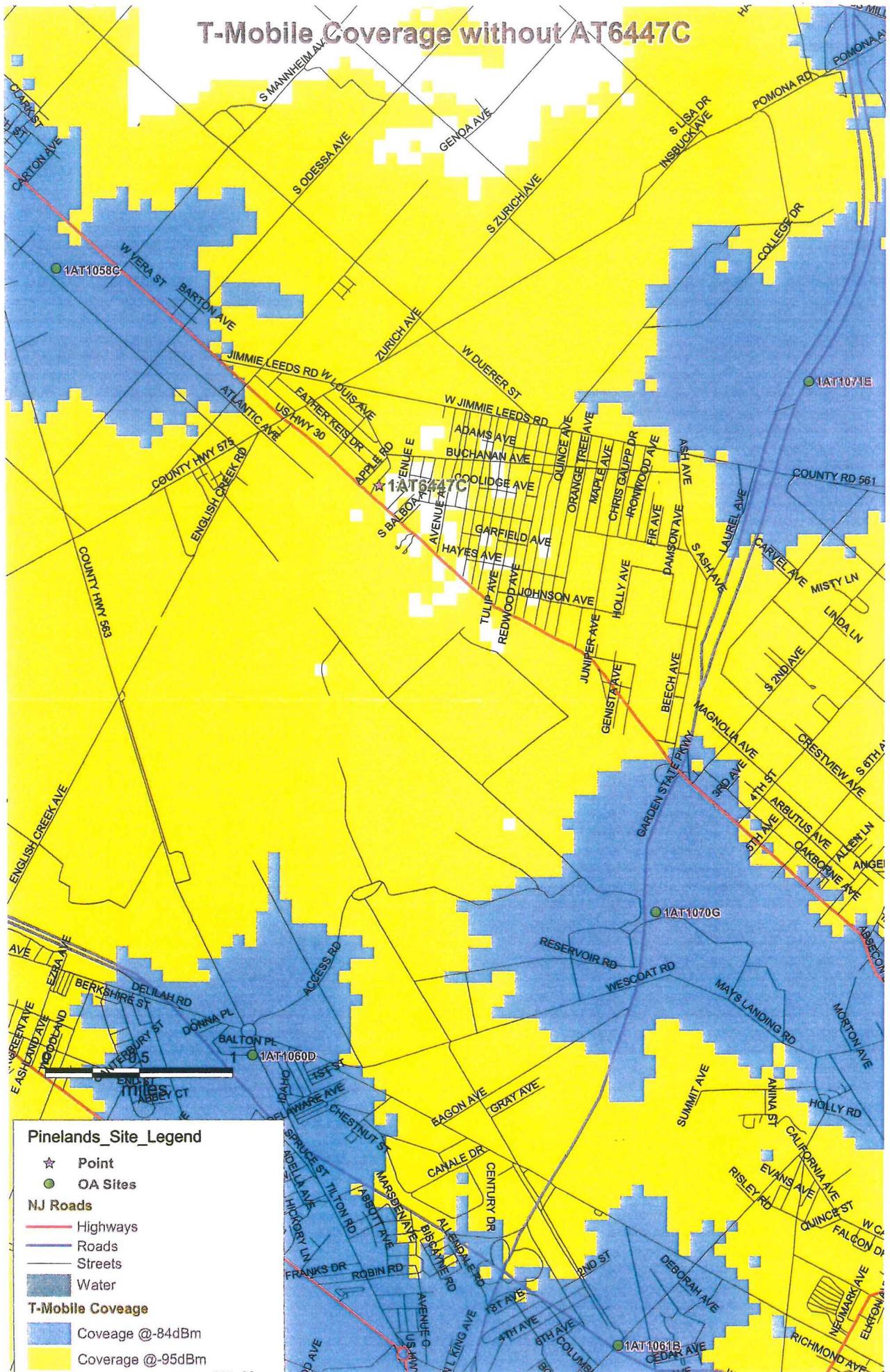
**NJ Roads**

- Highways
- Roads
- Streets
- Water

**T-Mobile Coverage**

- Coverage @-84dBm
- Coverage @-95dBm

# T-Mobile Coverage without AT6447C



**Pinelands\_Site\_Legend**

- ☆ Point
- OA Sites

**NJ Roads**

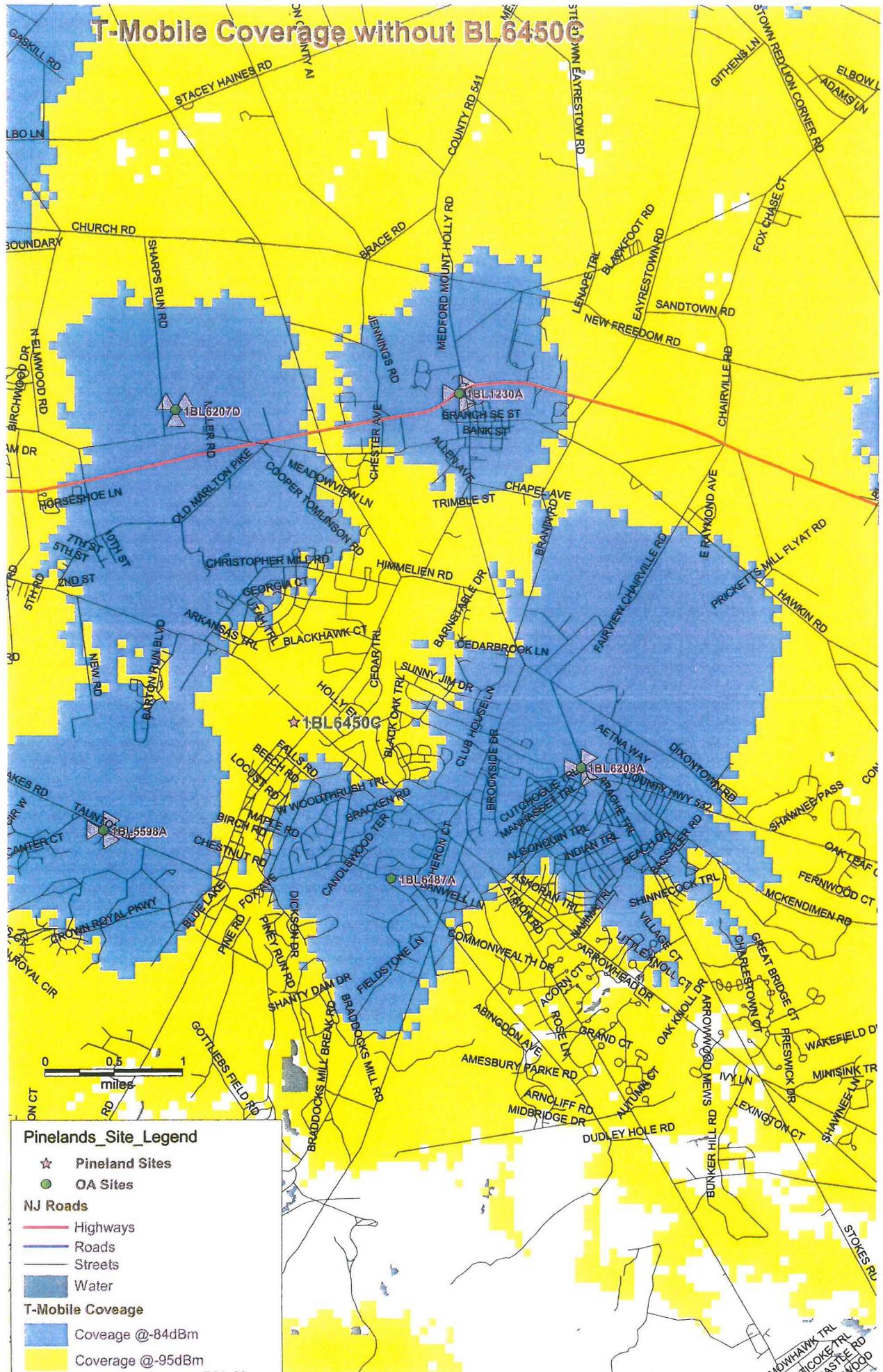
- Highways
- Roads
- Streets
- Water

**T-Mobile Coverage**

- Coverage @-84dBm
- Coverage @-95dBm



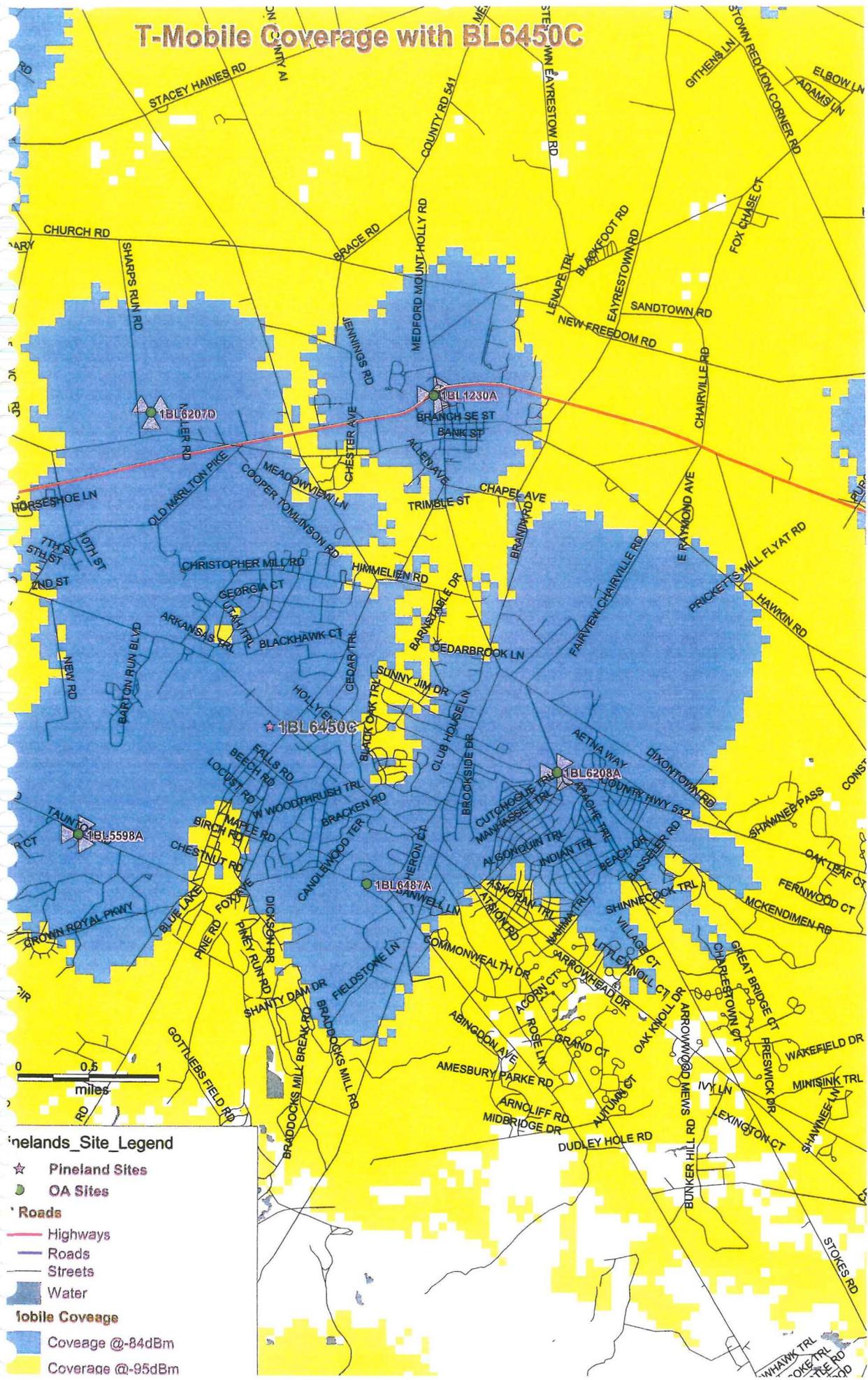
# T-Mobile Coverage without BL6450C



### Pinelands\_Site\_Legend

- ☆ Pineland Sites
- OA Sites
- NJ Roads**
- Highways
- Roads
- Streets
- Water
- T-Mobile Coverage**
- Coverage @-84dBm
- Coverage @-95dBm

# T-Mobile Coverage with BL6450C



**Pinelands\_Site\_Legend**

- ☆ Pineland Sites
- OA Sites

**Roads**

- Highways
- Roads
- Streets

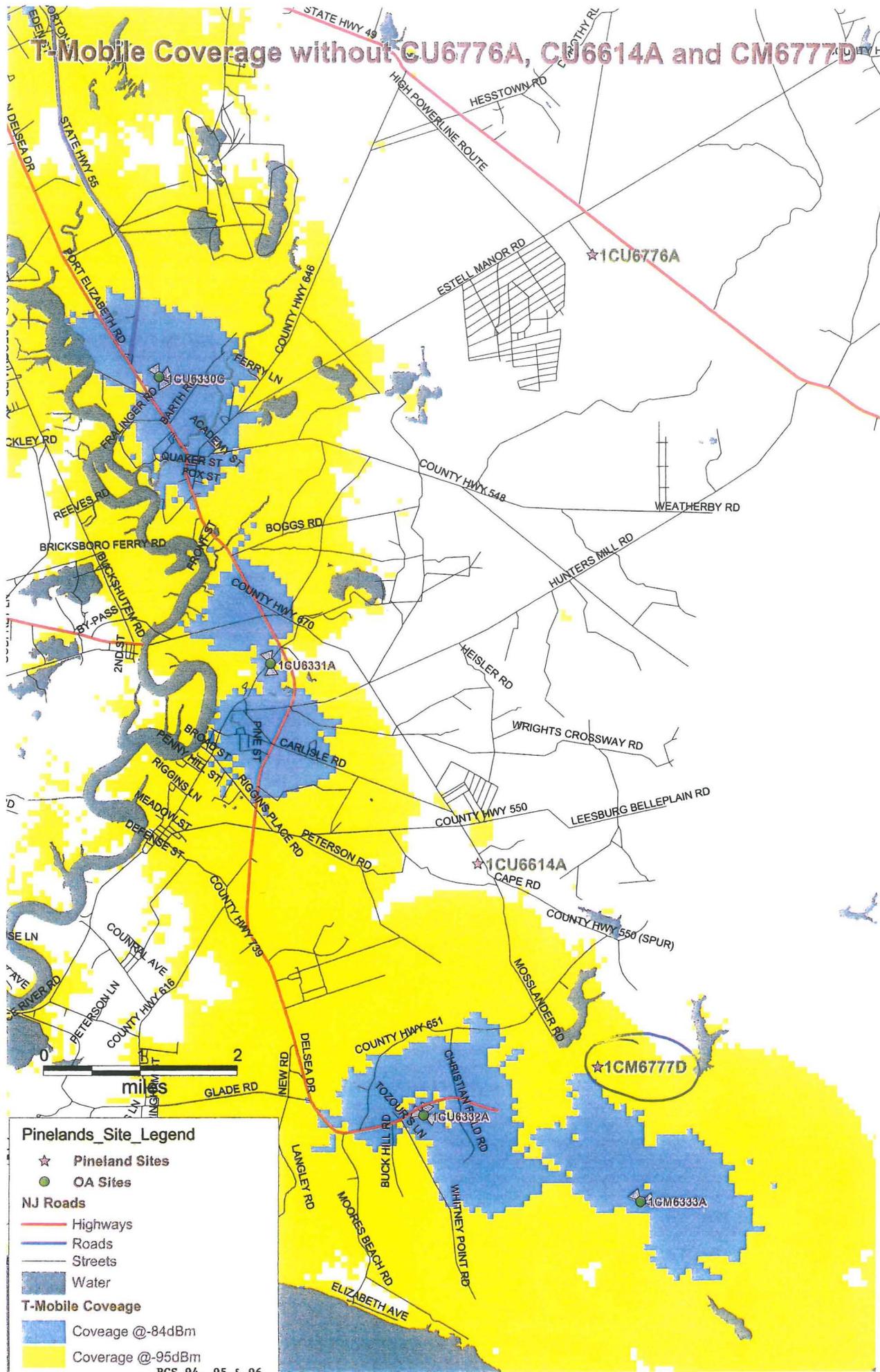
**Water**

- Water

**Mobile Coverage**

- Coverage @-84dBm
- Coverage @-95dBm

# T-Mobile Coverage without CU6776A, CU6614A and CM6777D



## Pinelands\_Site\_Legend

☆ Pineland Sites

● OA Sites

## NJ Roads

— Highways

— Roads

— Streets

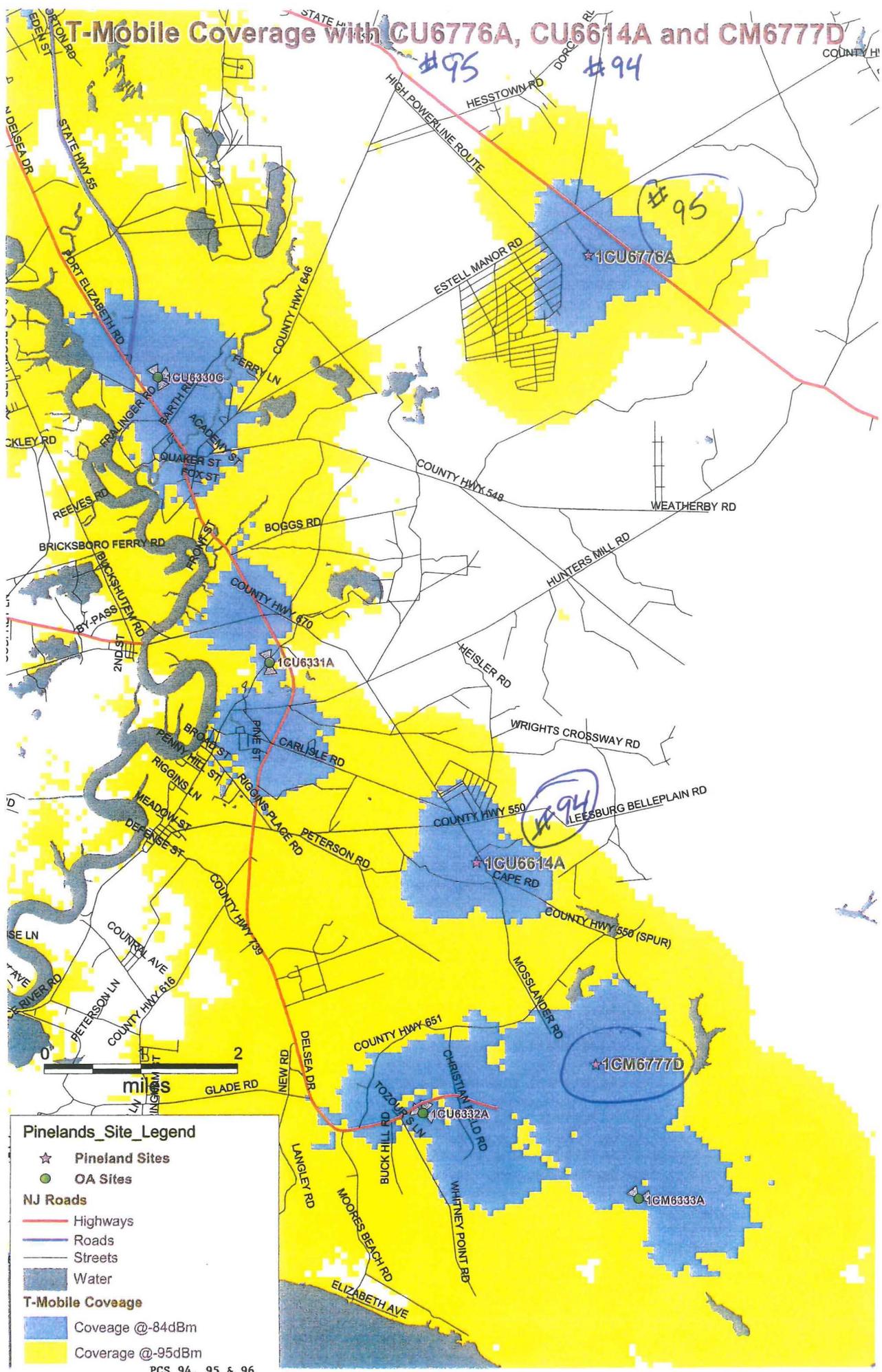
Water

## T-Mobile Coverage

Coverage @ -84dBm

Coverage @ -95dBm

PCS 94, 95 & 96



**Pinelands\_Site\_Legend**

- ☆ Pineland Sites
- OA Sites

**NJ Roads**

- Highways
- Roads
- Streets

**Water**

- Water

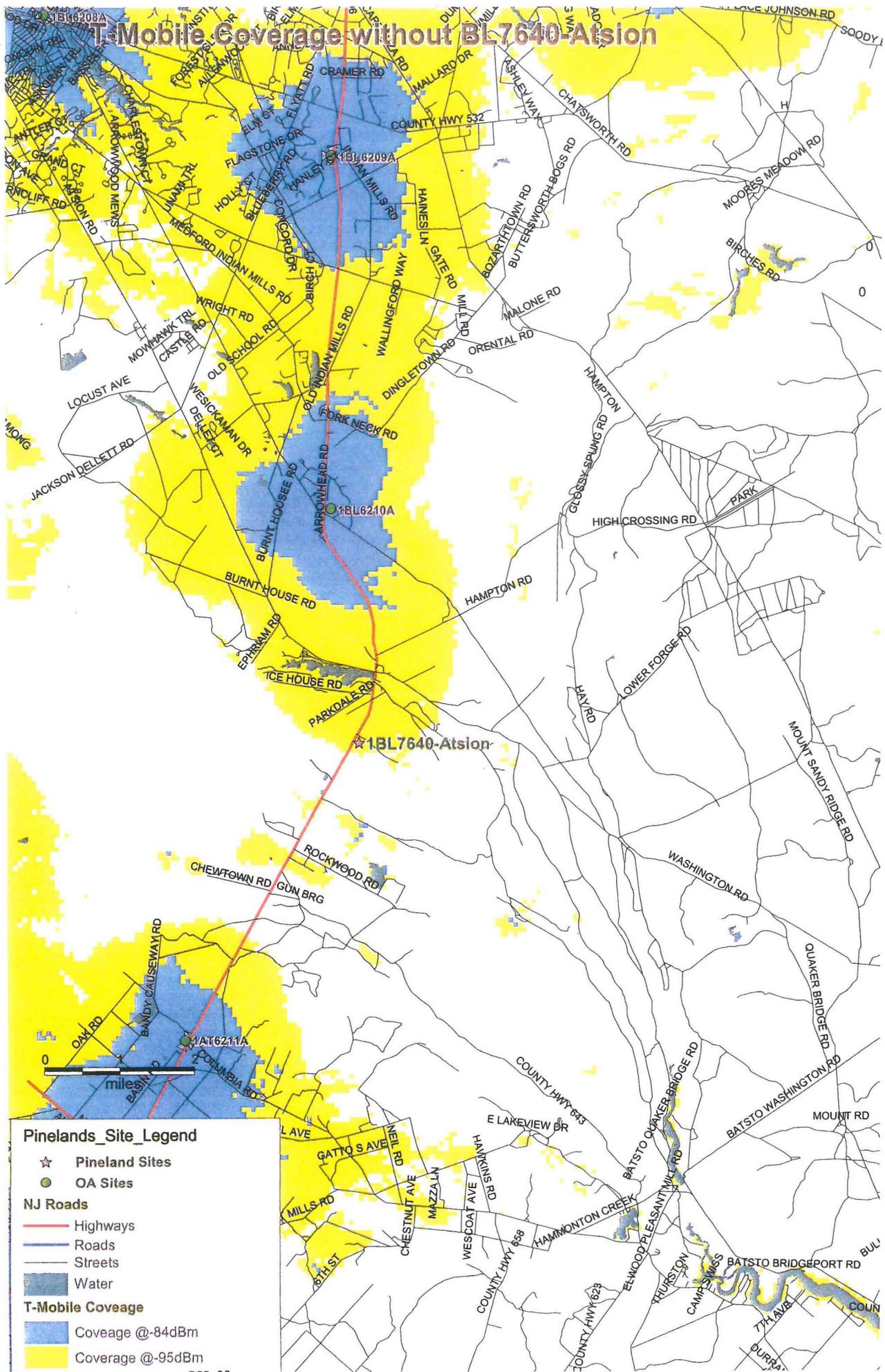
**T-Mobile Coverage**

- Coverage @-84dBm
- Coverage @-95dBm

PCS 94, 95 & 96



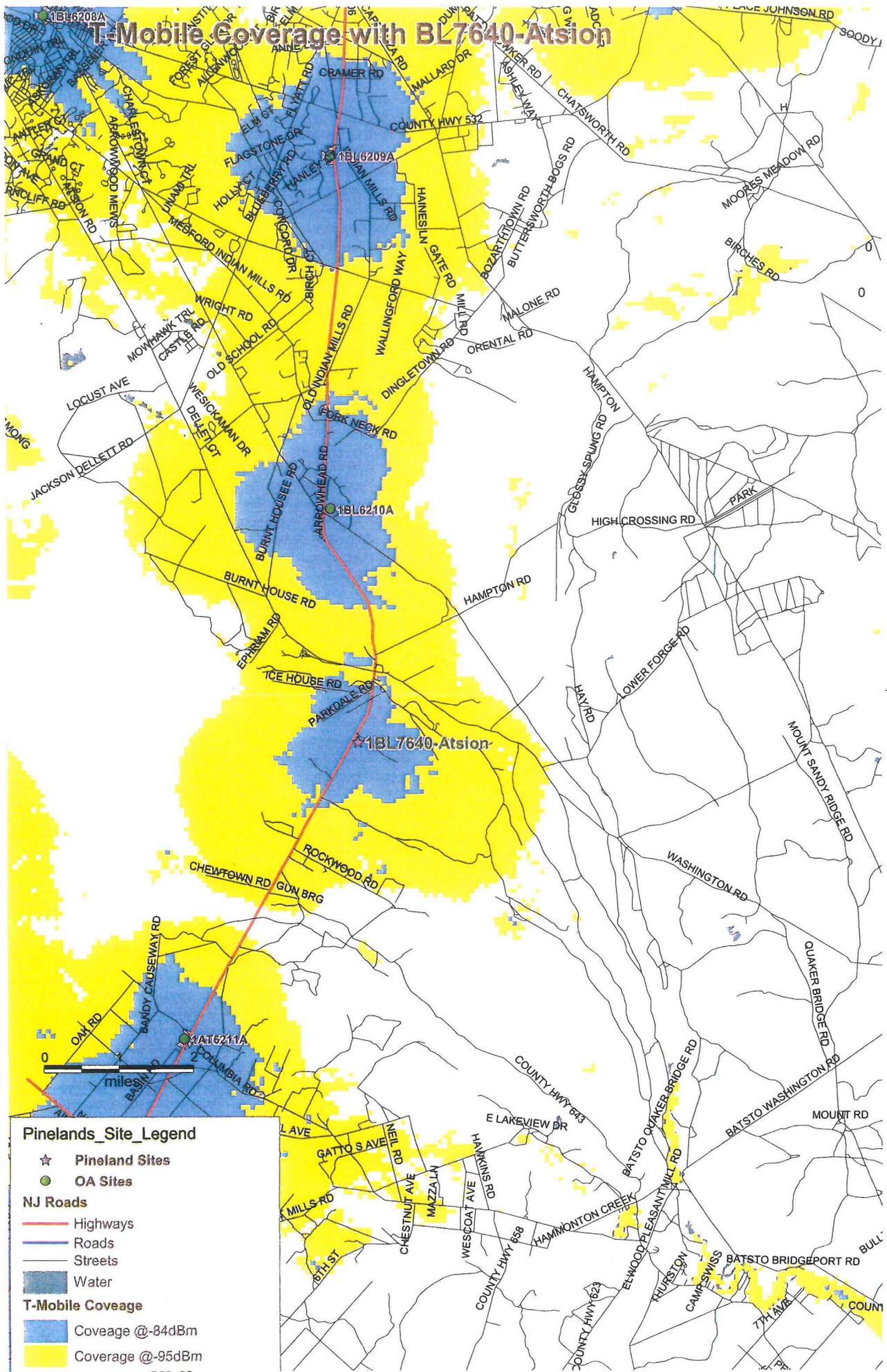
# T-Mobile Coverage without BL7640-Atsion



## Pinelands\_Site\_Legend

- ☆ Pinelands Sites
- OA Sites
- NJ Roads**
- Highways
- Roads
- Streets
- Water
- T-Mobile Coverage**
- Coverage @ -84dBm
- Coverage @ -95dBm

# T-Mobile Coverage with BL7640-Atsion



**Pinelands\_Site\_Legend**

- ☆ Pineland Sites
- OA Sites

**NJ Roads**

- Highways
- Roads
- Streets

**Water**

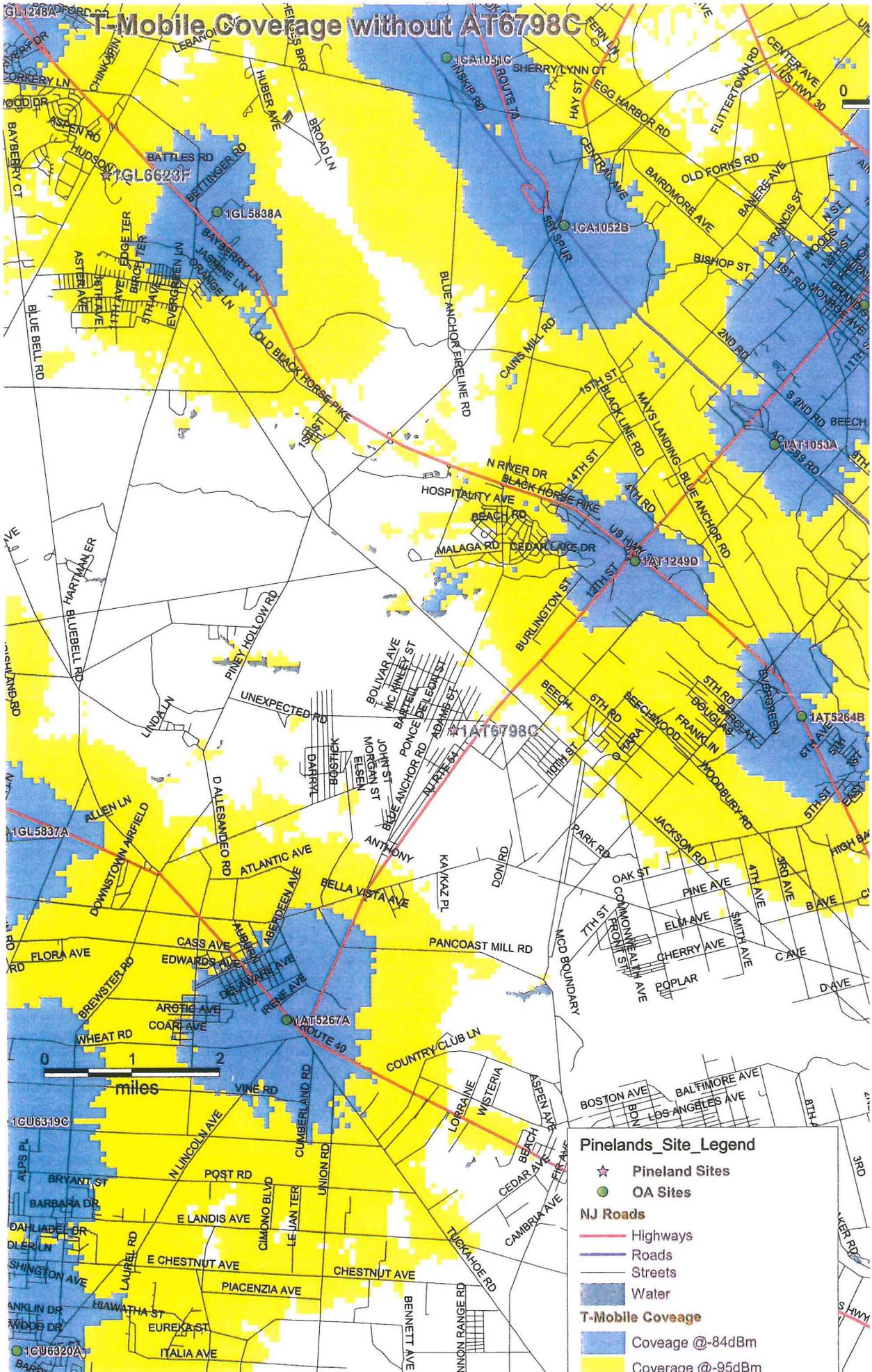
- Water

**T-Mobile Coverage**

- Coverage @ -84dBm
- Coverage @ -95dBm

PCS 98

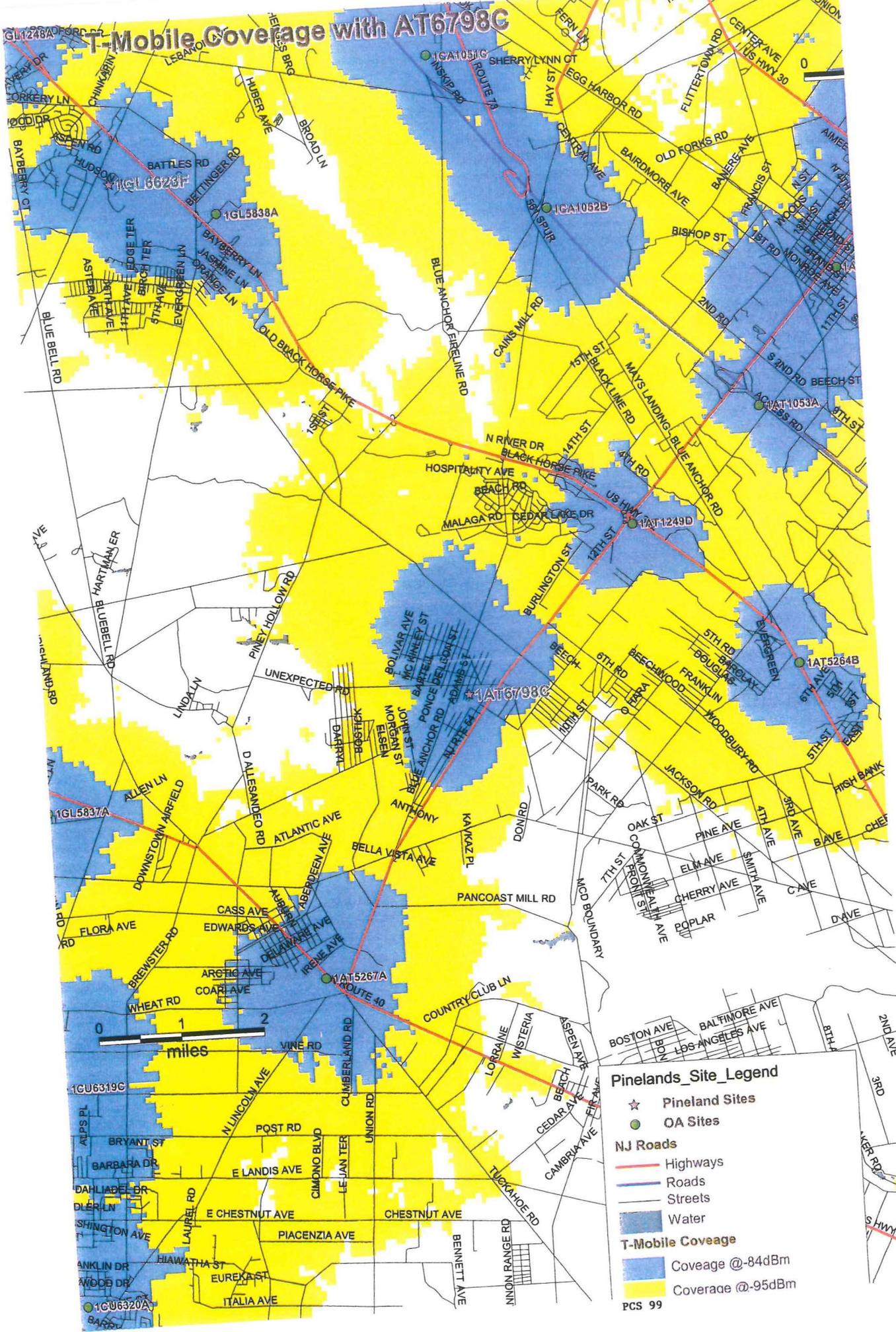
# T-Mobile Coverage without AT6798C



## Pinelands\_Site\_Legend

- ★ Pineland Sites
- OA Sites
- NJ Roads**
- Highways
- Roads
- Streets
- Water
- T-Mobile Coverage**
- Coverage @-84dBm
- Coverage @-95dBm

# T-Mobile Coverage with AT6798C



## Pinelands\_Site\_Legend

- ☆ Pineland Sites
- OA Sites

### NJ Roads

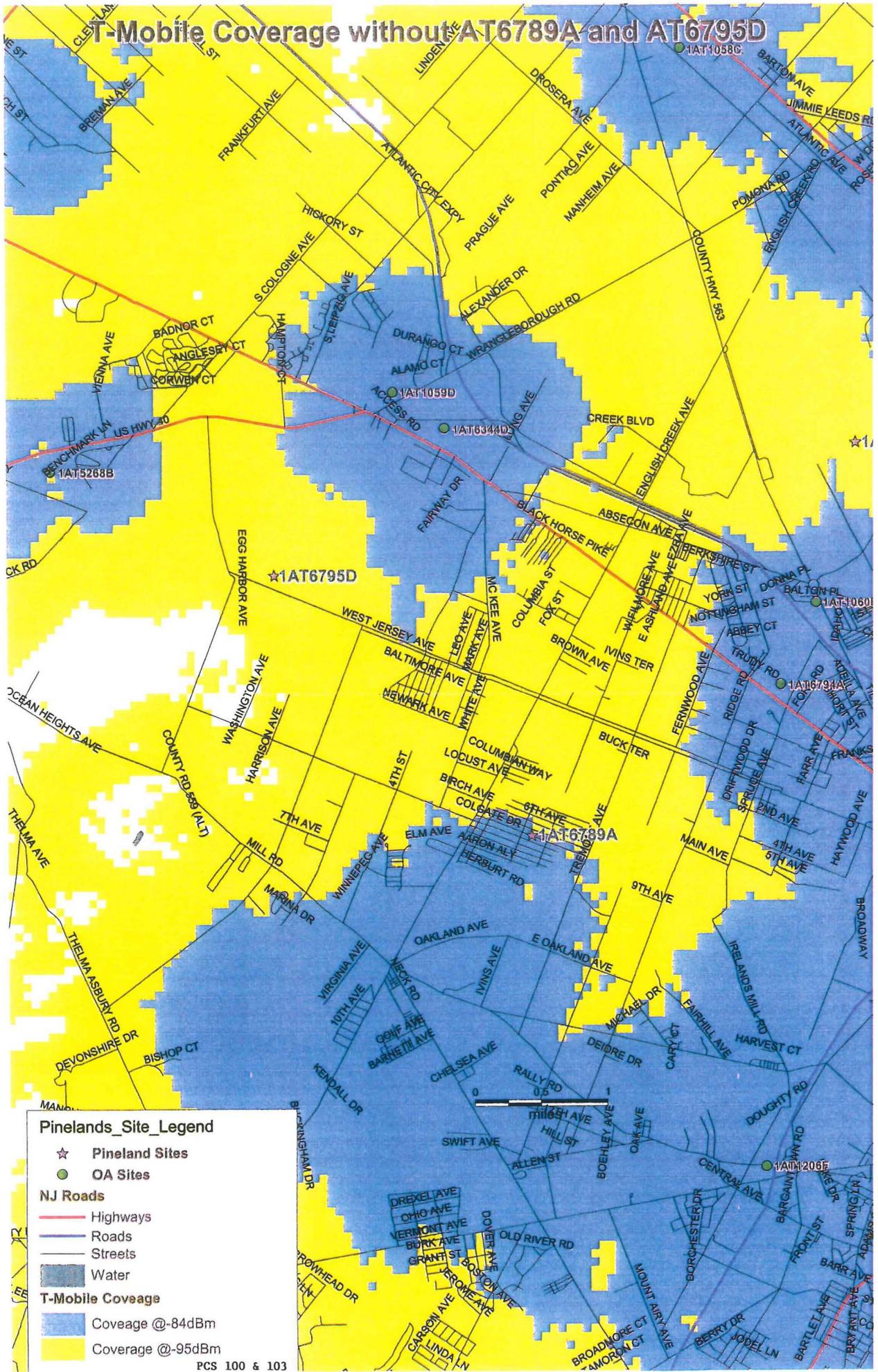
- Highways
- Roads
- Streets
- Water

### T-Mobile Coverage

- Coverage @-84dBm
- Coverage @-95dBm

PCS 99

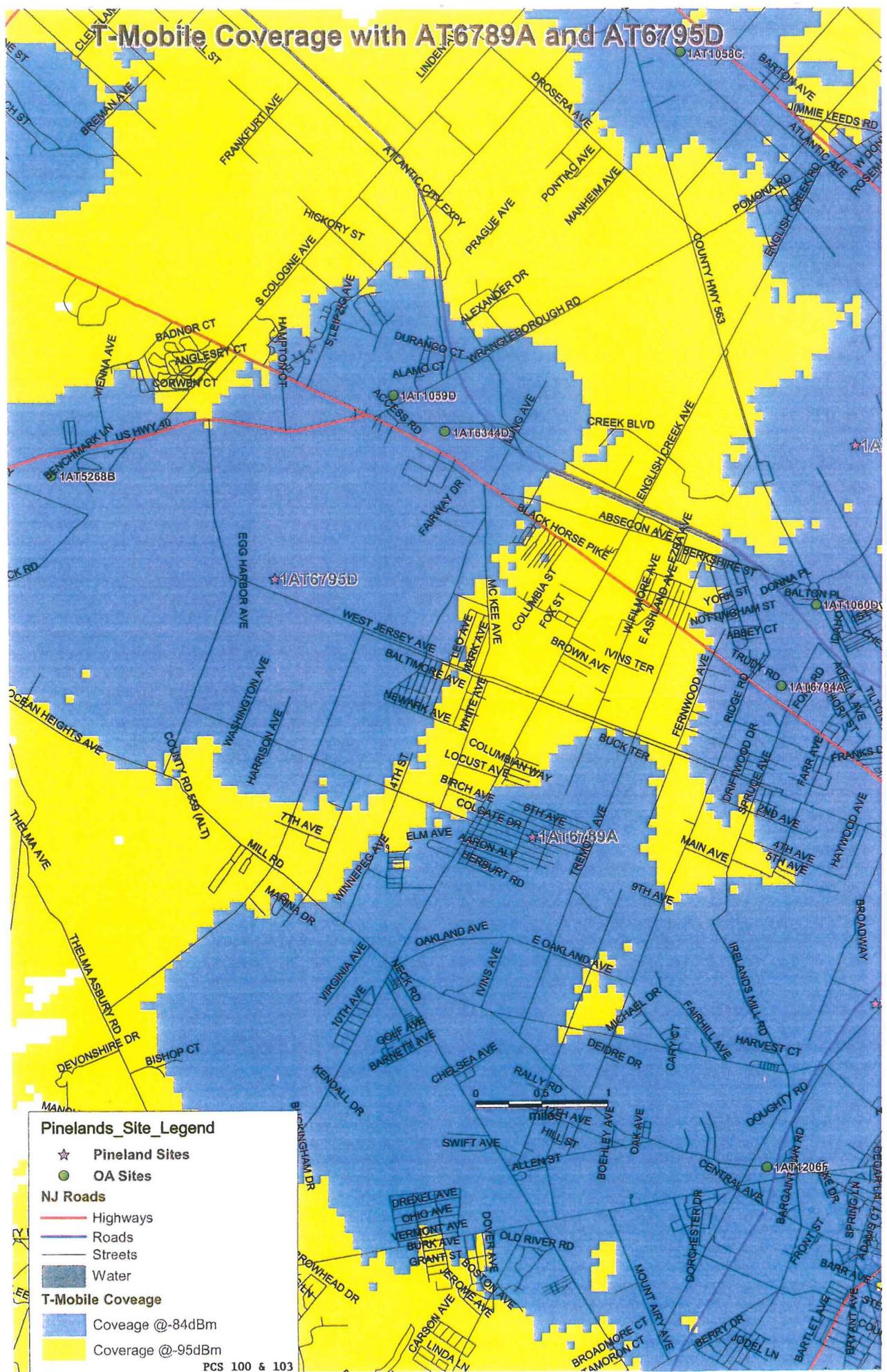
# T-Mobile Coverage without AT6789A and AT6795D



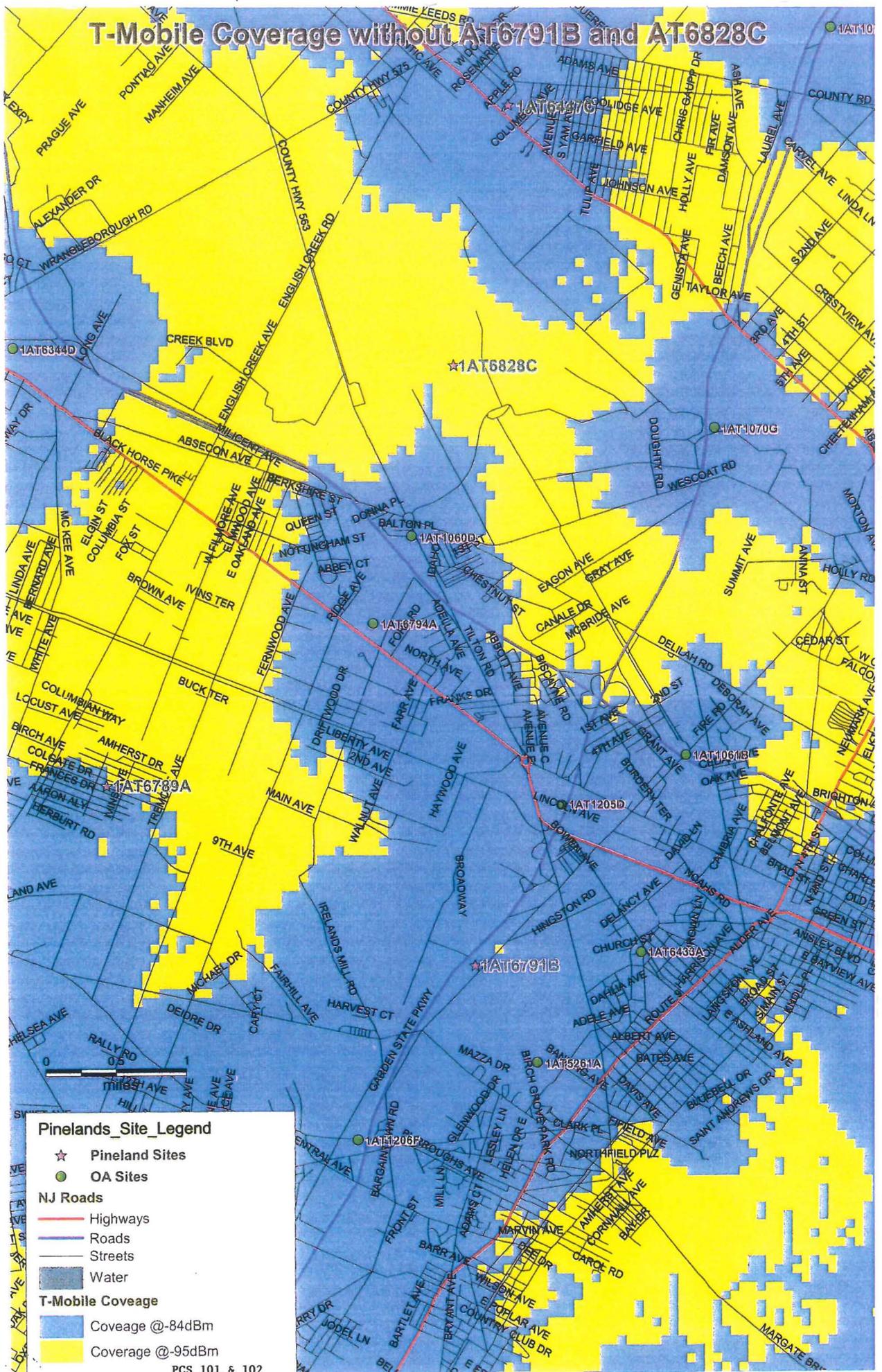
## Pinelands\_Site\_Legend

- ☆ Pinelands Sites
- OA Sites
- NJ Roads**
- Highways
- Roads
- Streets
- Water
- T-Mobile Coverage**
- Coverage @-84dBm
- Coverage @-95dBm

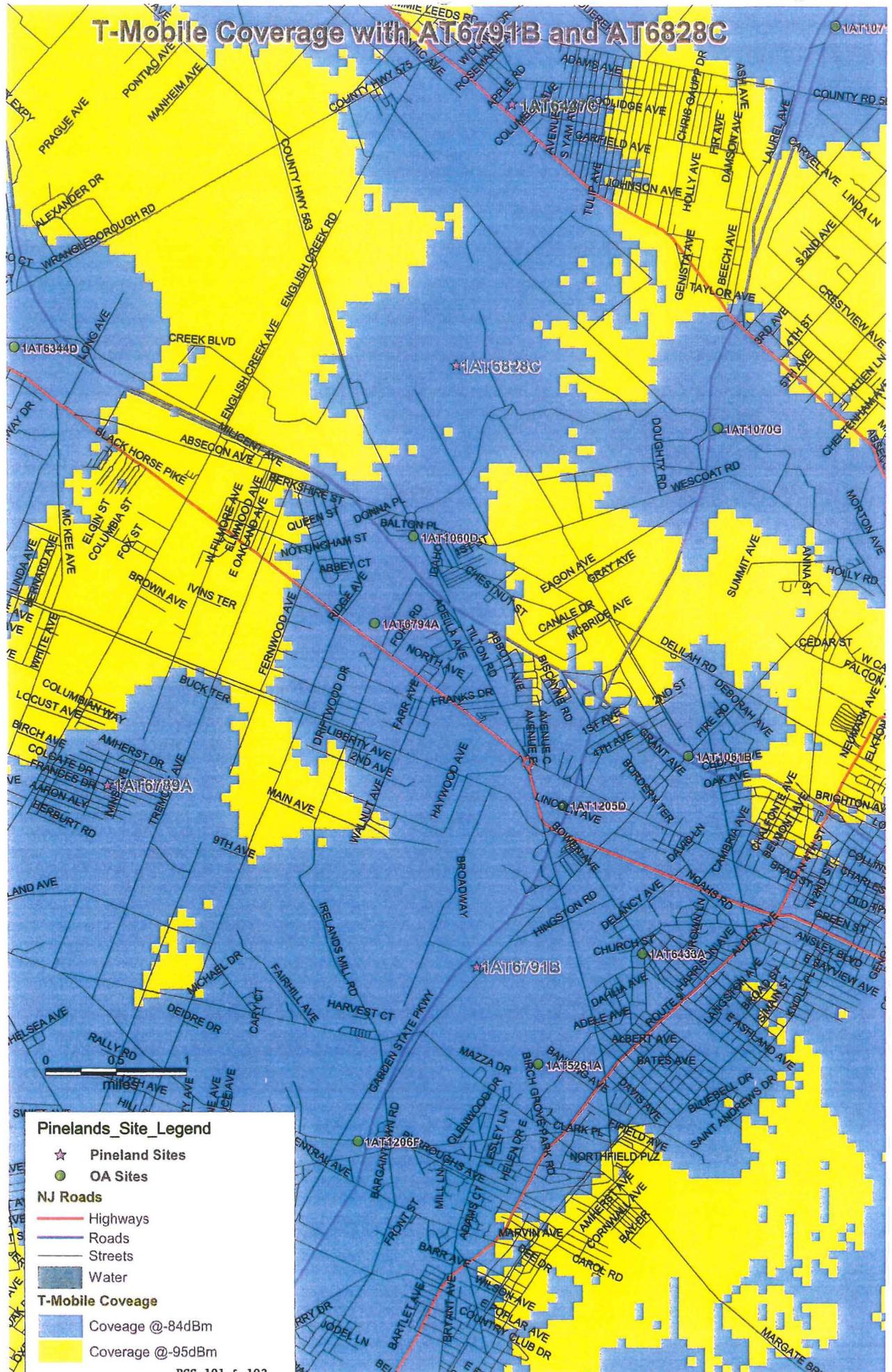
# T-Mobile Coverage with AT6789A and AT6795D



# T-Mobile Coverage without AT6791B and AT6828C



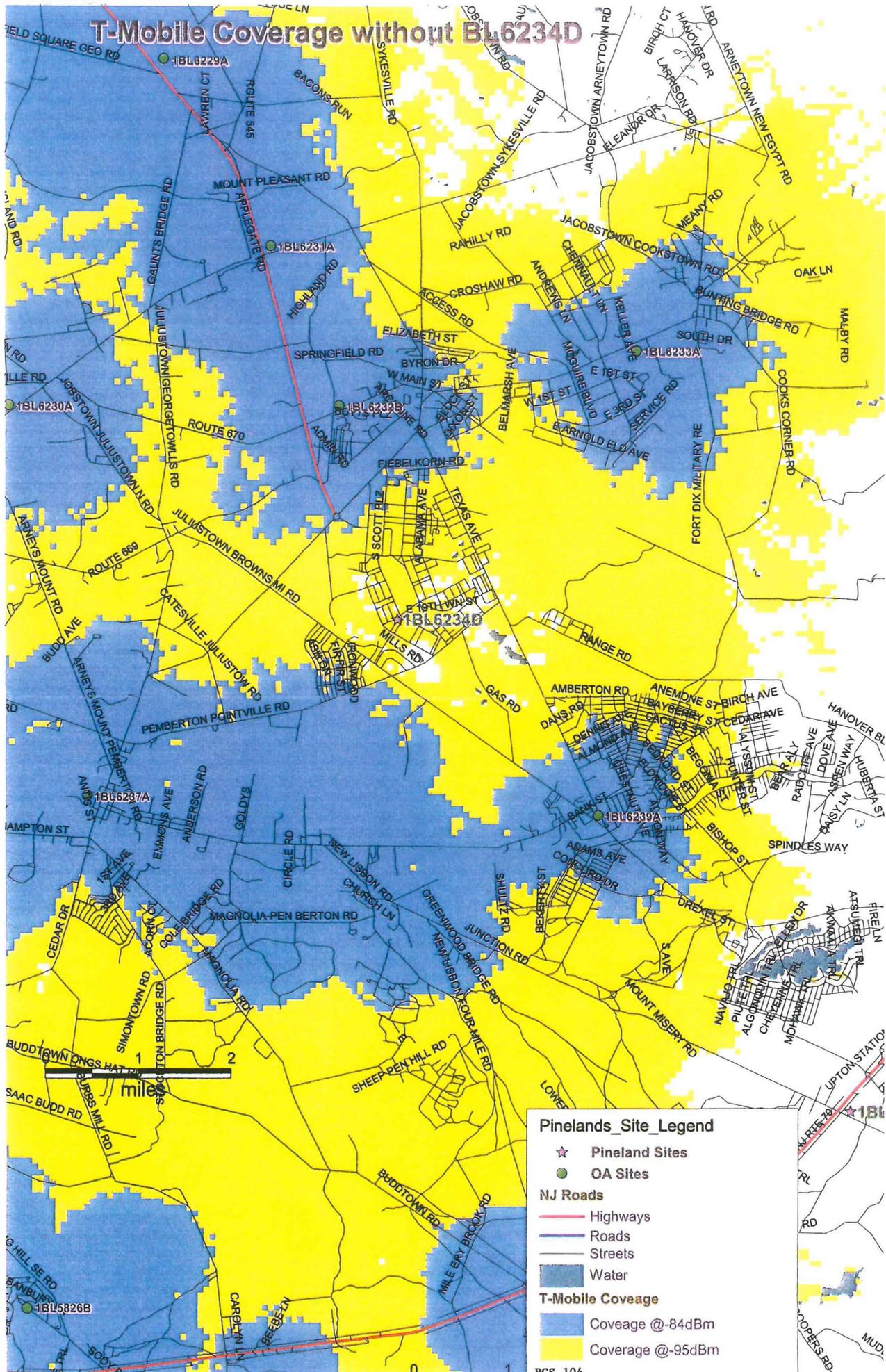
# T-Mobile Coverage with AT6791B and AT6828C



## Pinelands\_Site\_Legend

- ☆ Pineland Sites
- OA Sites
- NJ Roads**
- Highways
- Roads
- Streets
- Water
- T-Mobile Coverage**
- Coverage @ -84dBm
- Coverage @ -95dBm

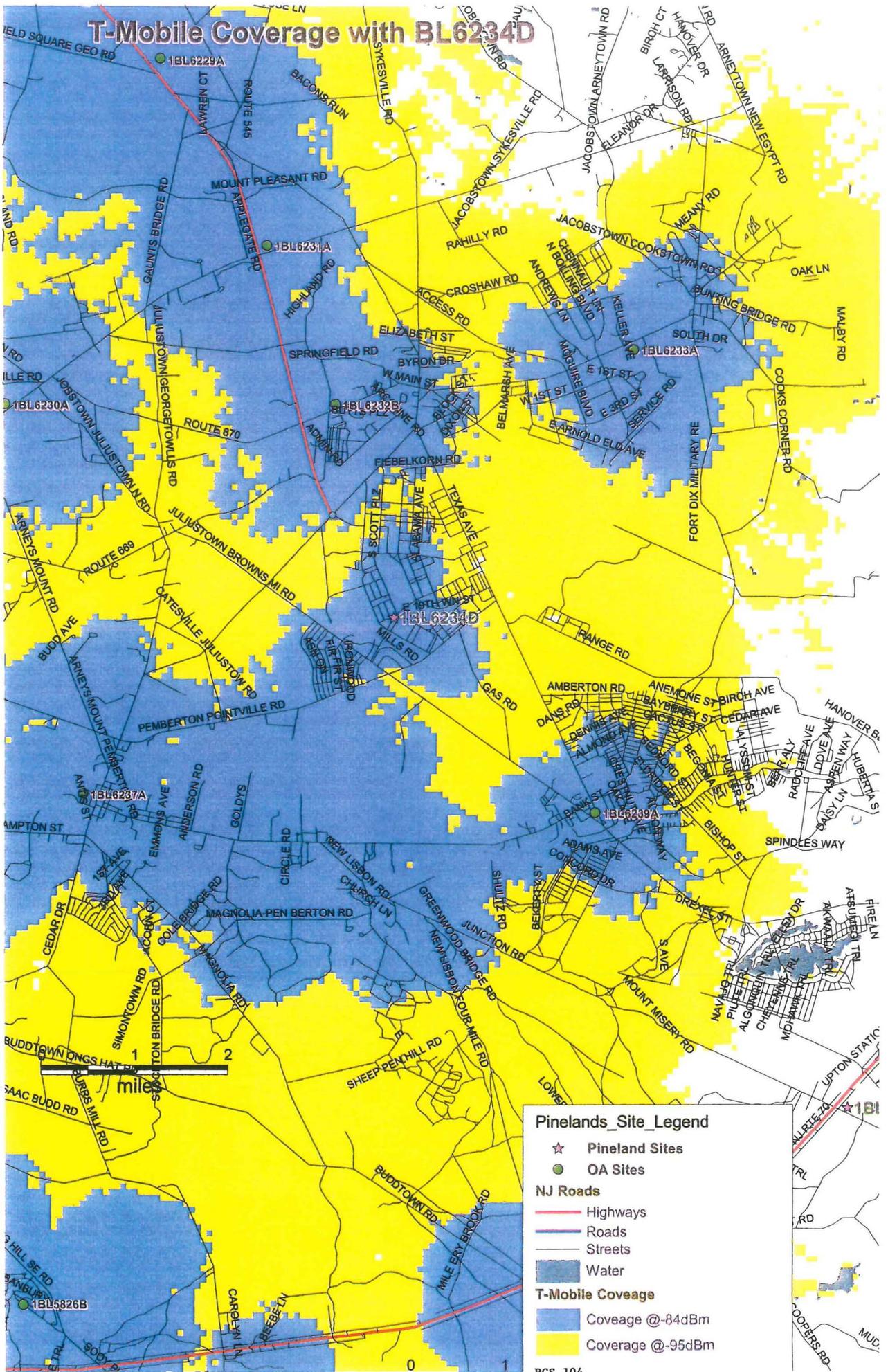
# T-Mobile Coverage without BL6234D



## Pinelands\_Site\_Legend

- ☆ Pineland Sites
- OA Sites
- NJ Roads**
- Highways
- Roads
- Streets
- Water
- T-Mobile Coverage**
- Coverage @-84dBm
- Coverage @-95dBm

# T-Mobile Coverage with BL6234D

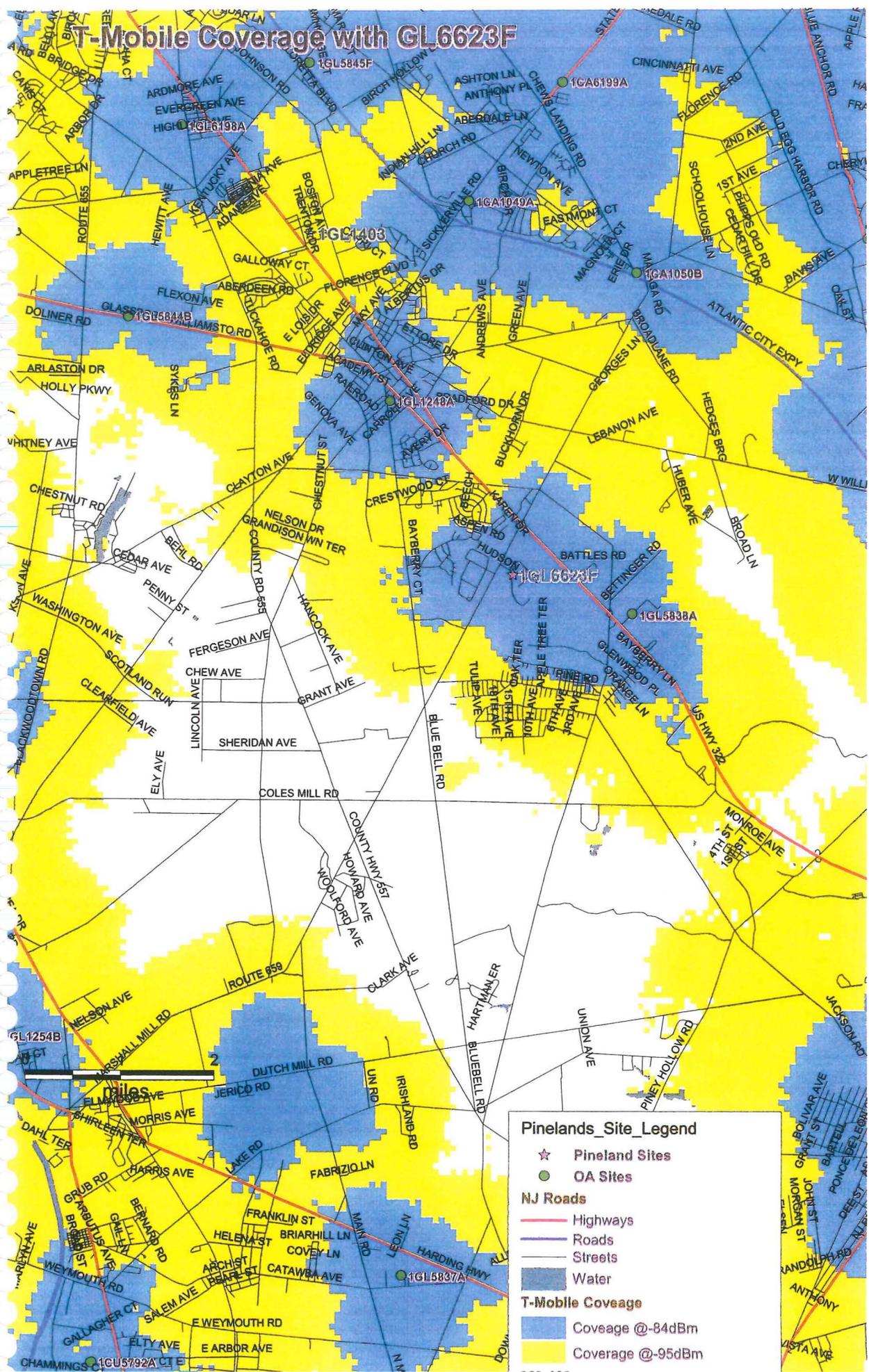


## Pinelands\_Site\_Legend

- ★ Pinelands Sites
- OA Sites
- NJ Roads**
- Highways
- Roads
- Streets
- Water
- T-Mobile Coverage**
- Coverage @ -84dBm
- Coverage @ -95dBm



# T-Mobile Coverage with GL6623F



**Pinelands\_Site\_Legend**

- ☆ Pineland Sites
- OA Sites

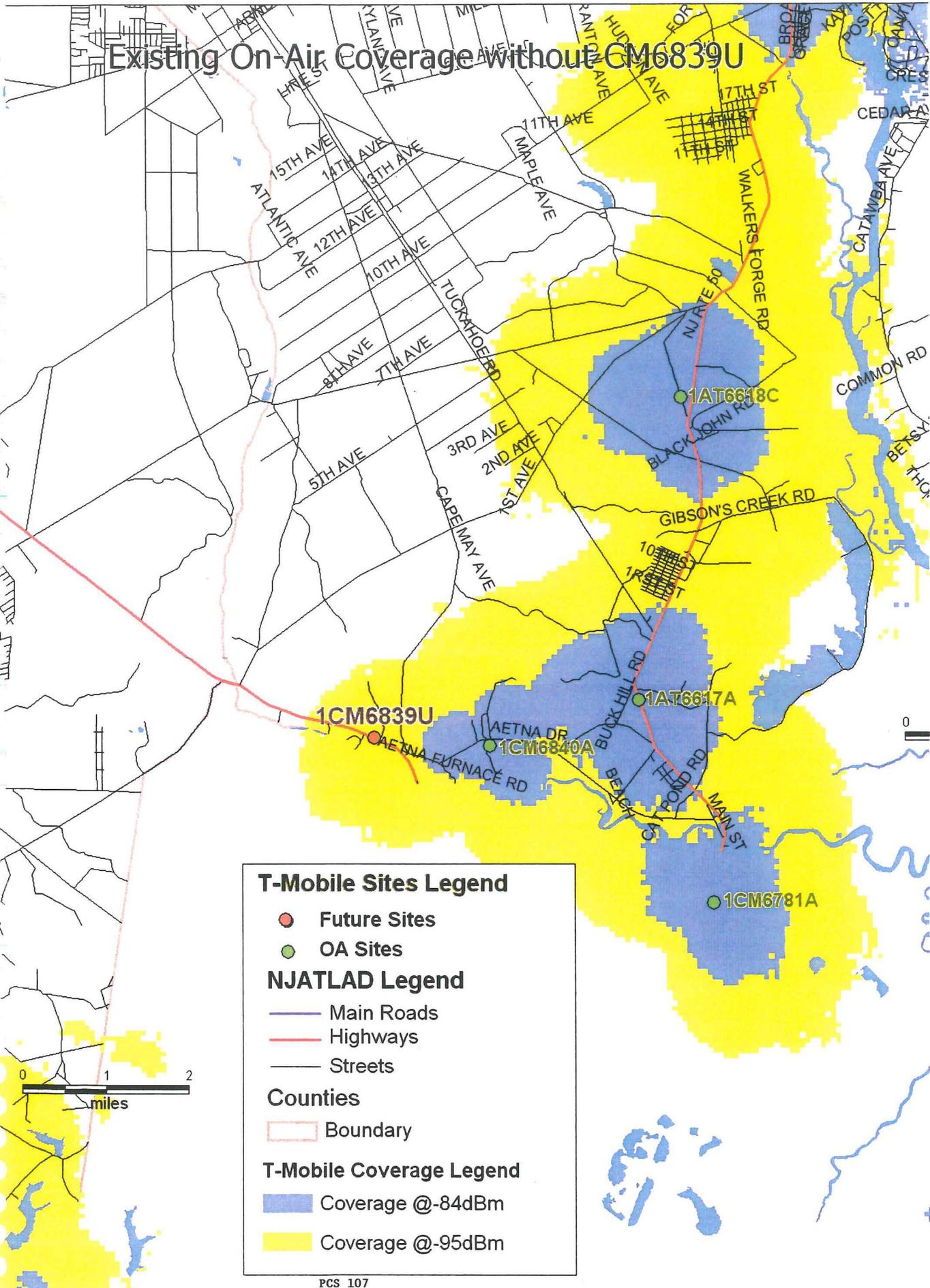
**NJ Roads**

- Highways
- Roads
- Streets
- Water

**T-Mobile Coverage**

- Coverage @-84dBm
- Coverage @-95dBm

# Existing On-Air Coverage without CM6839U



**T-Mobile Sites Legend**

- Future Sites
- OA Sites

**NJATLAD Legend**

- Main Roads
- Highways
- Streets

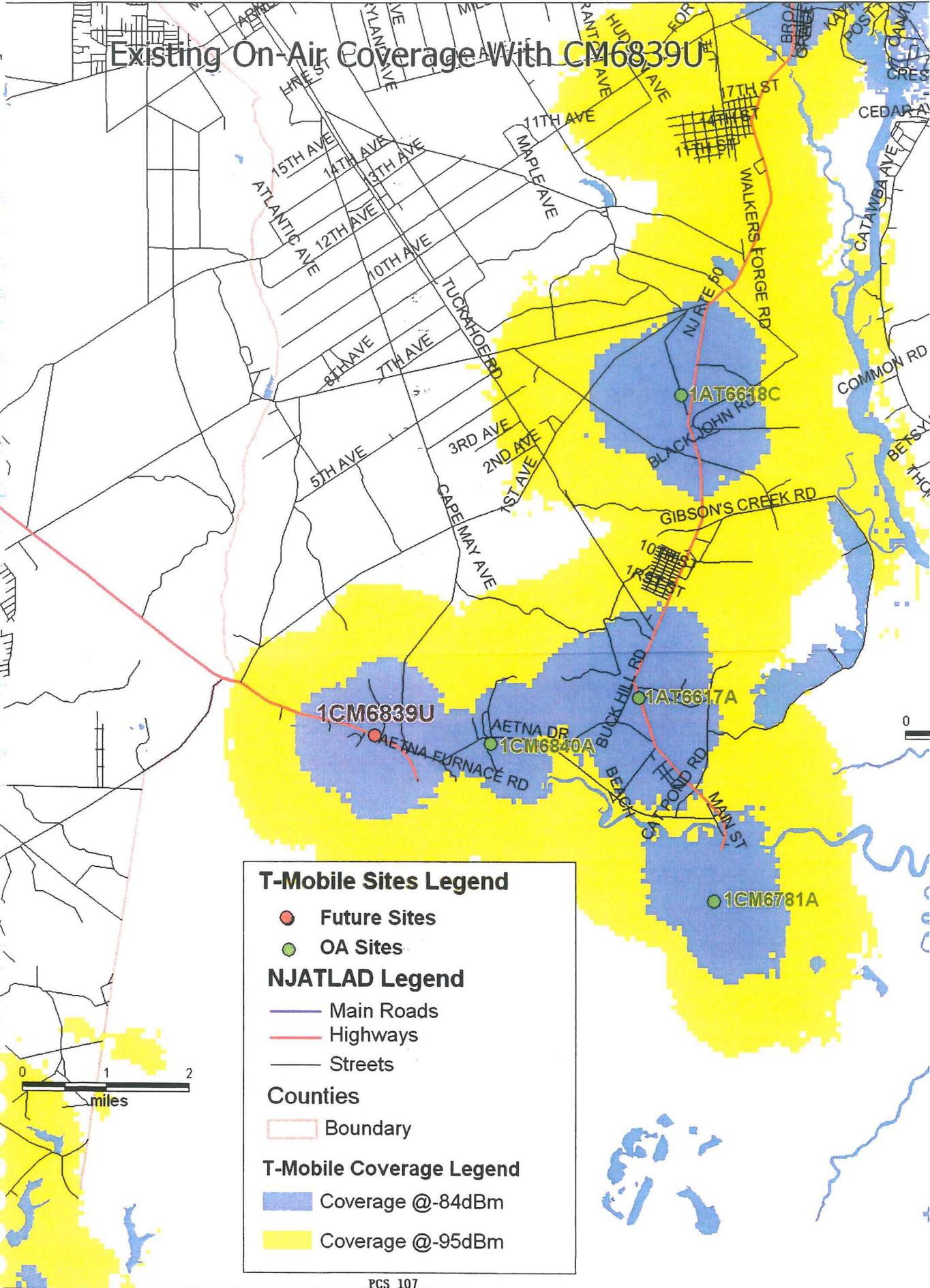
**Counties**

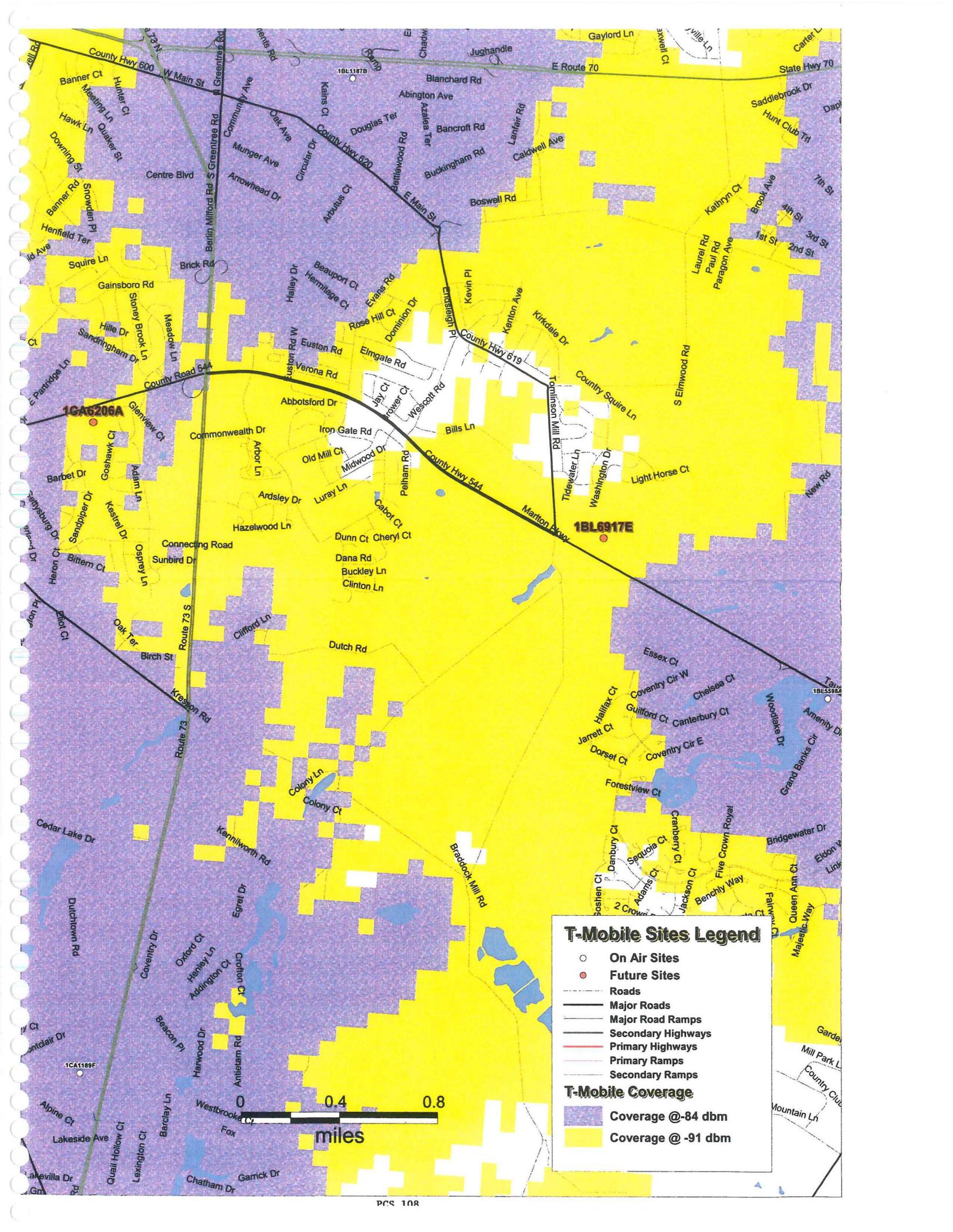
- Boundary

**T-Mobile Coverage Legend**

- Coverage @-84dBm
- Coverage @-95dBm

# Existing On-Air Coverage With CM6839U





1GA6206A

1BL6917E

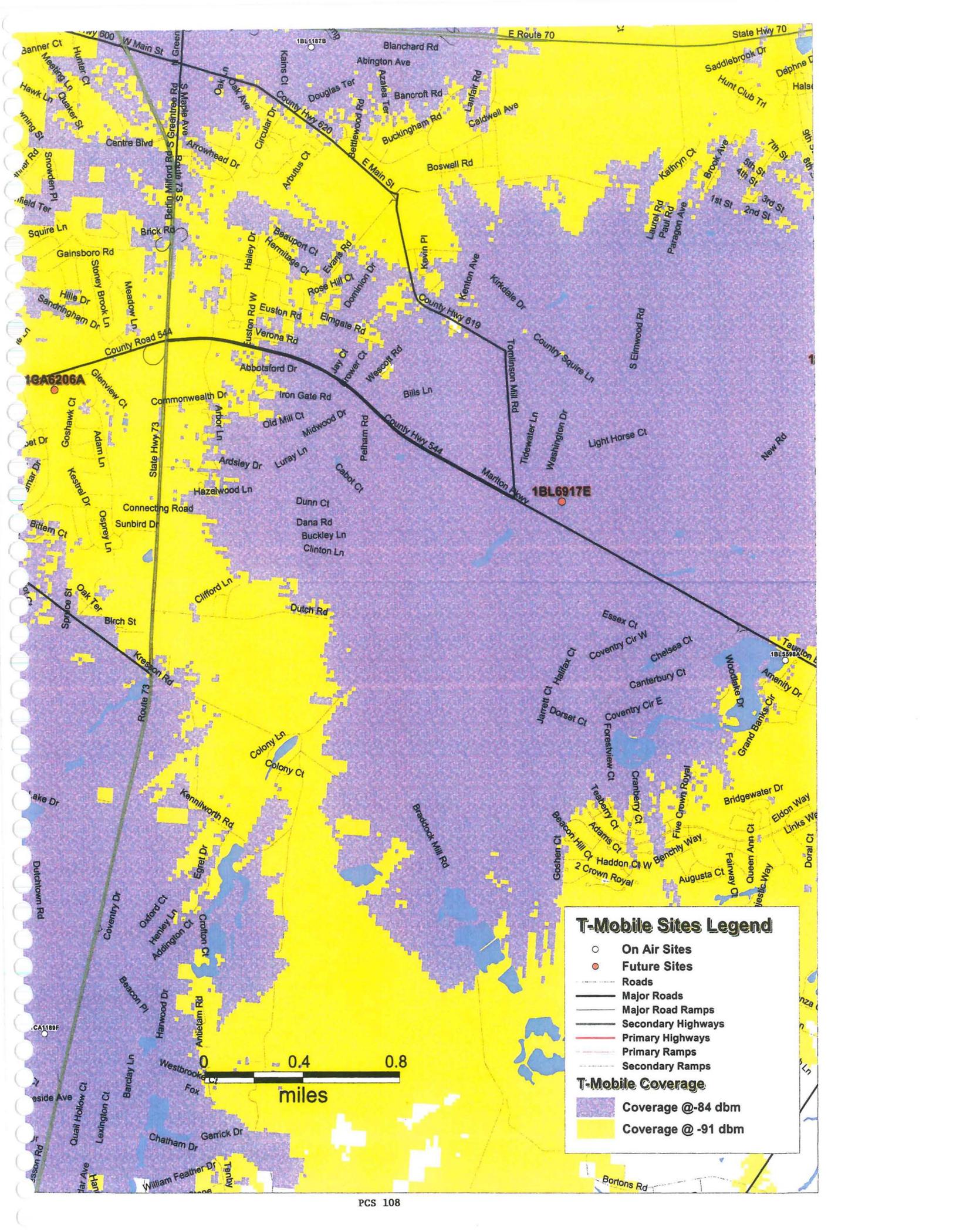
**T-Mobile Sites Legend**

- On Air Sites
- Future Sites
- Roads
- Major Roads
- Major Road Ramps
- Secondary Highways
- Primary Highways
- Primary Ramps
- Secondary Ramps

**T-Mobile Coverage**

- Coverage @ -84 dbm
- Coverage @ -91 dbm





**T-Mobile Sites Legend**

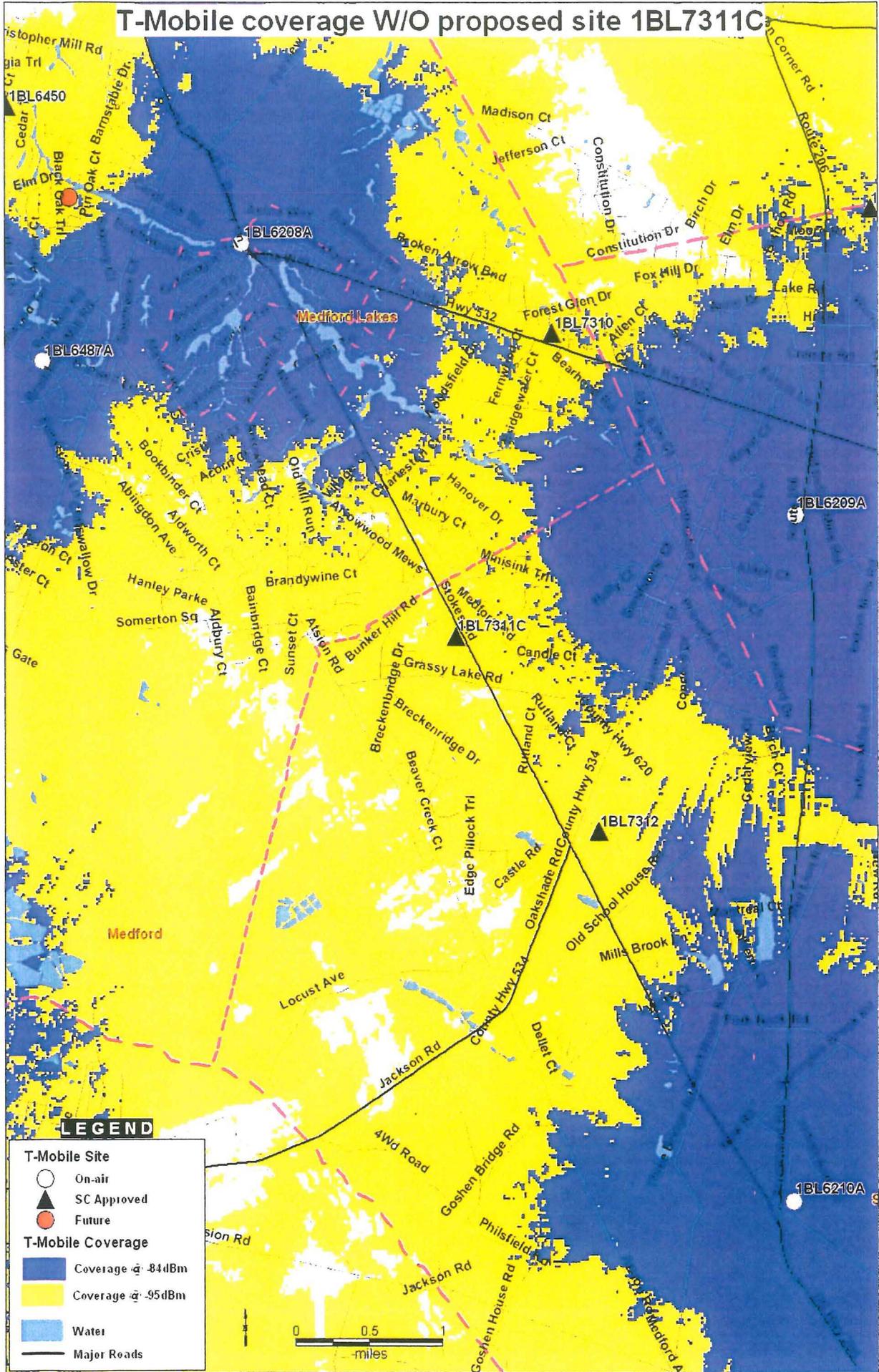
- On Air Sites
- Future Sites
- Roads
- Major Roads
- Major Road Ramps
- Secondary Highways
- Primary Highways
- Primary Ramps
- Secondary Ramps

**T-Mobile Coverage**

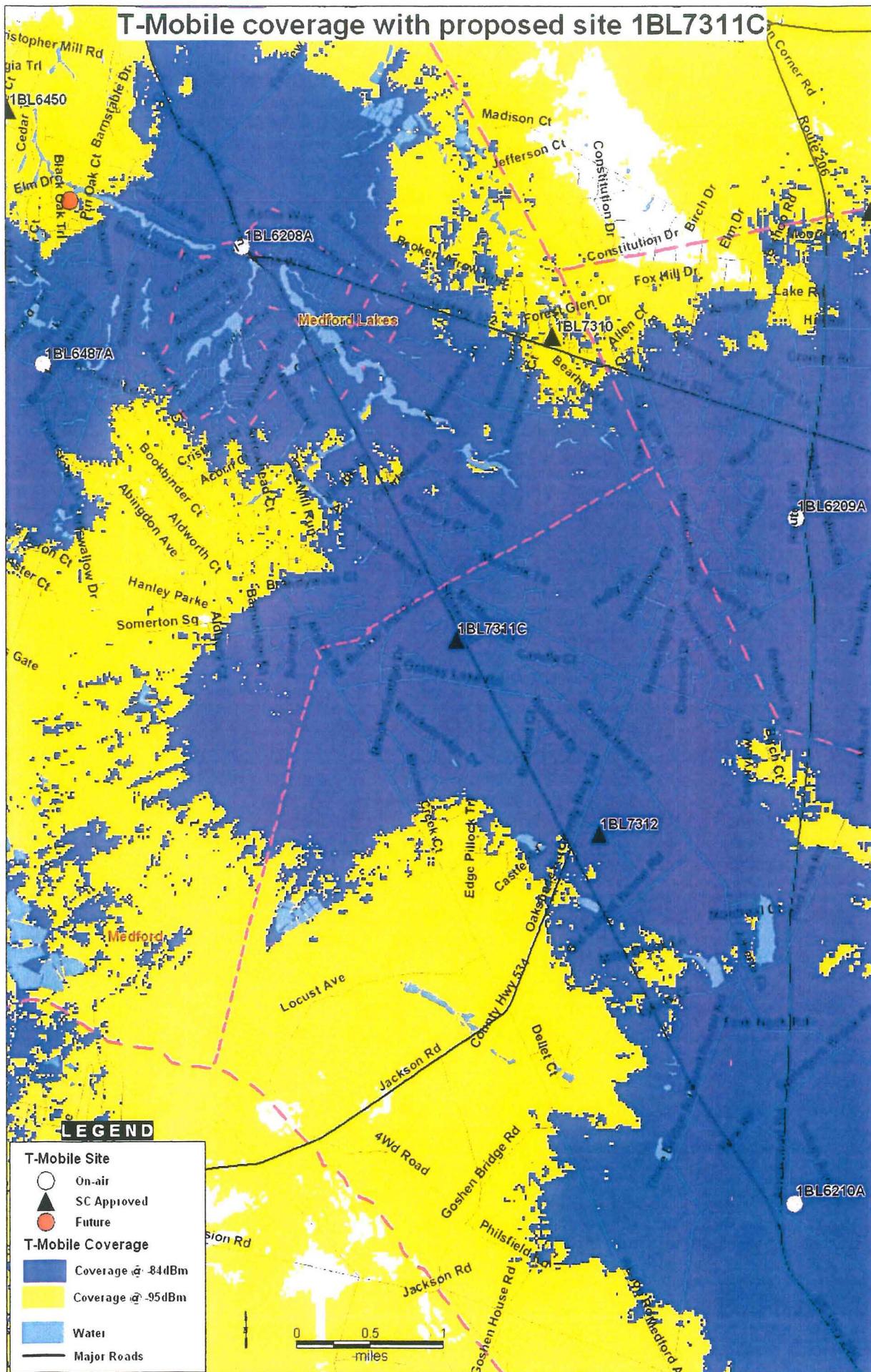
- Coverage @ -84 dbm
- Coverage @ -91 dbm



# T-Mobile coverage W/O proposed site 1BL7311C

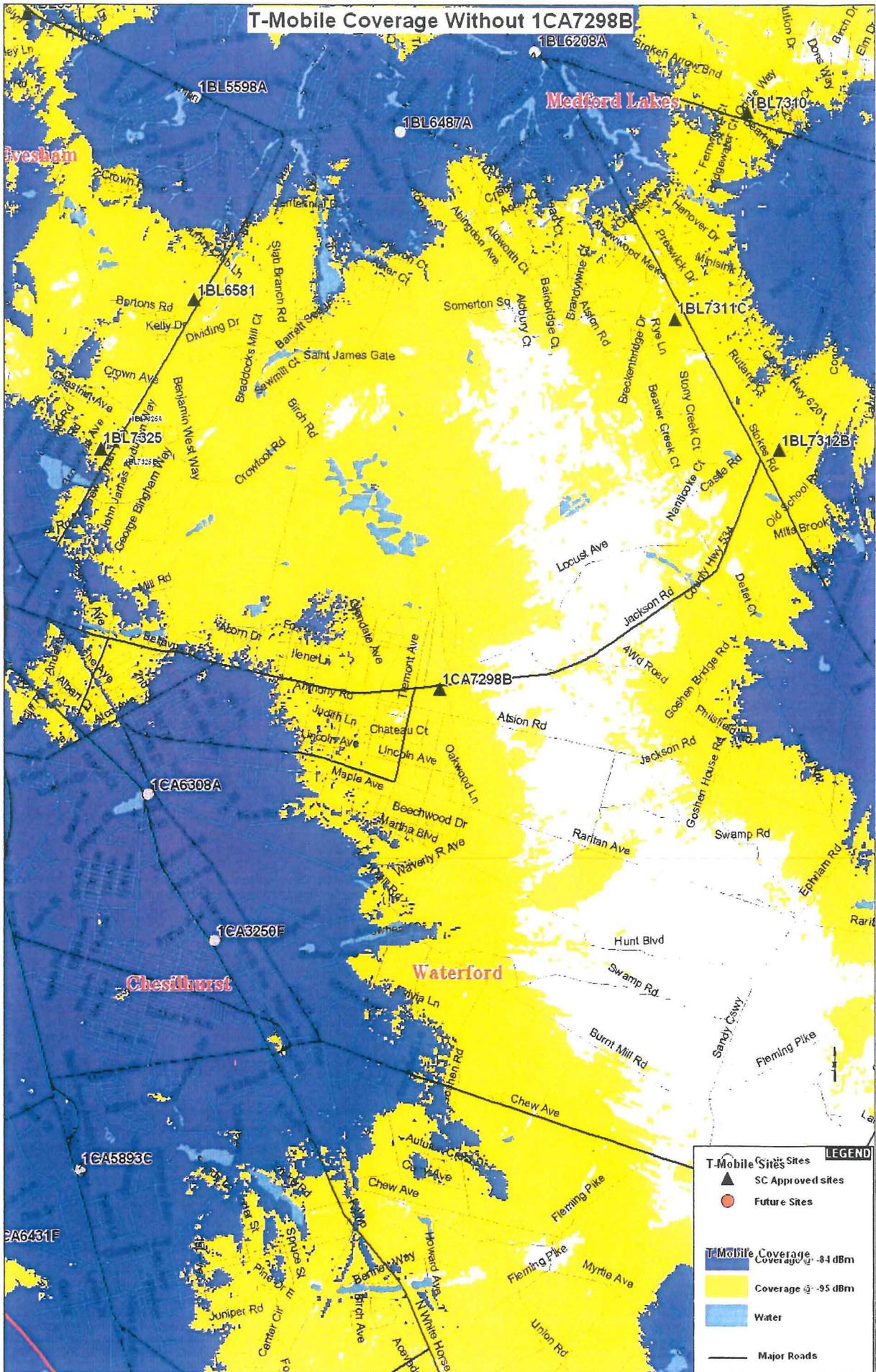


# T-Mobile coverage with proposed site 1BL7311C

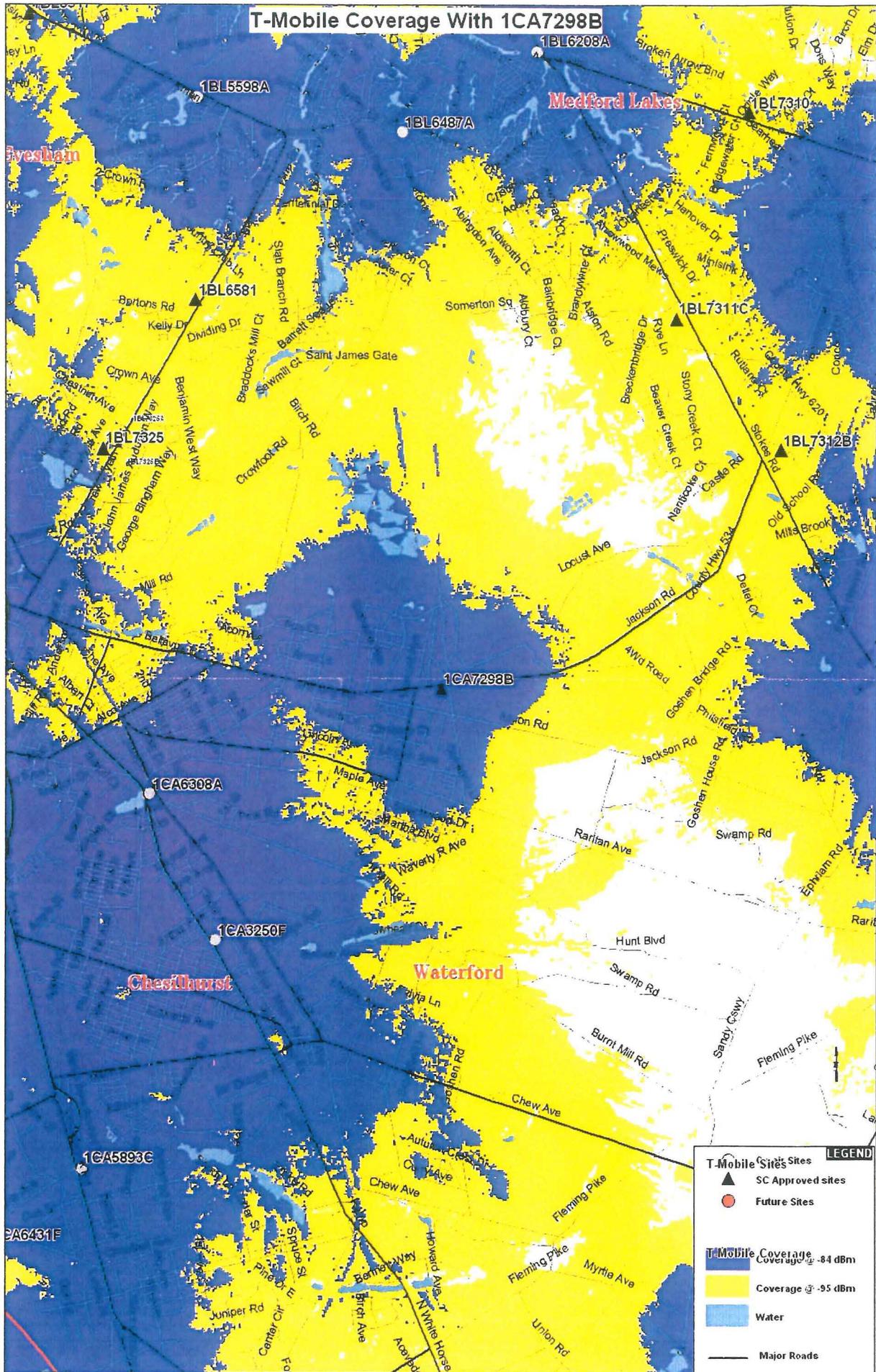








SITE #111



T-Mobile Coverage With 1CA7298B

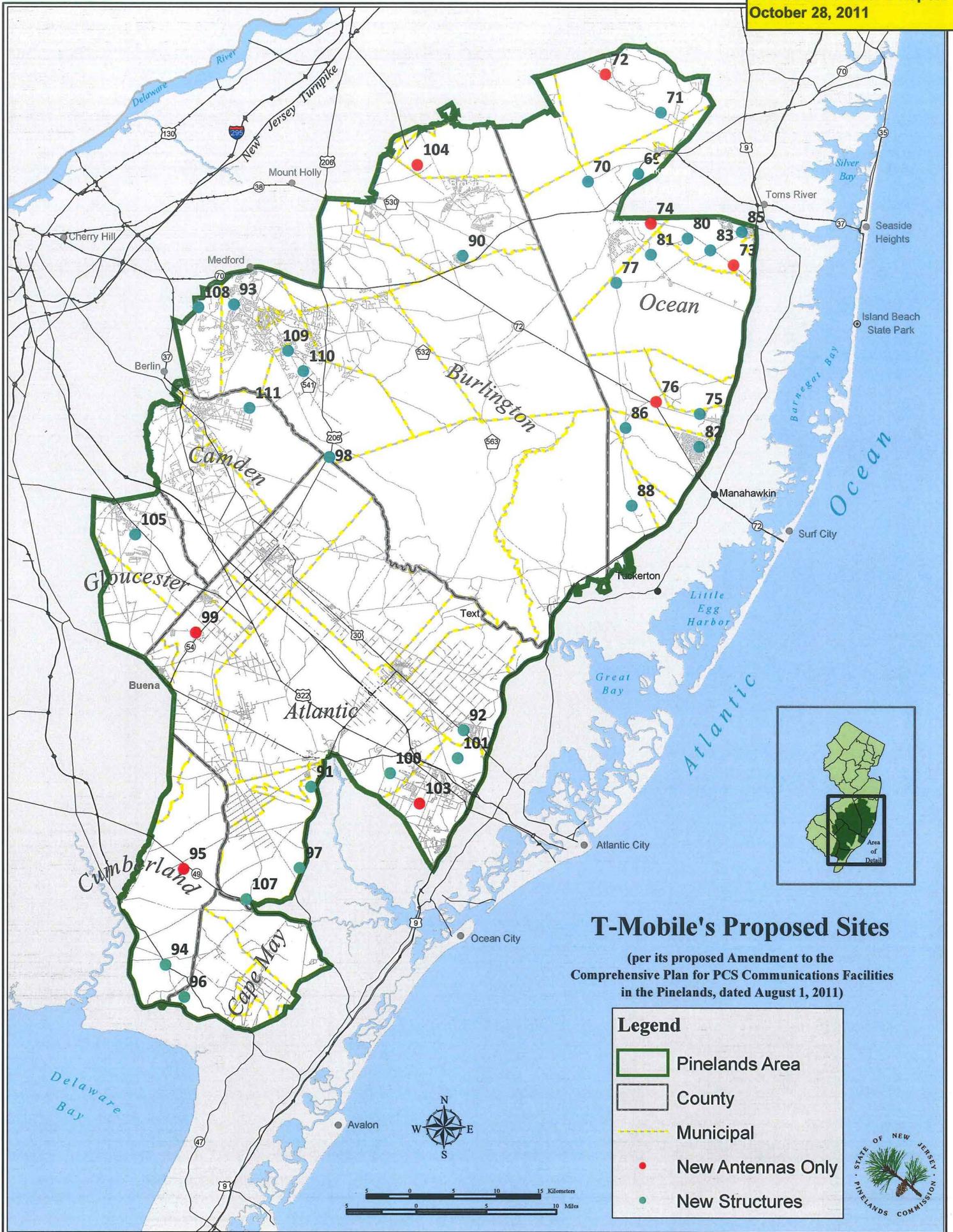
**T-Mobile Sites**

- ▲ SC Approved sites
- Future Sites

**T-Mobile Coverage**

- Coverage  $\le -84\text{ dBm}$
- Coverage  $\ge -95\text{ dBm}$
- Water
- Major Roads

**LEGEND**



### T-Mobile's Proposed Sites

(per its proposed Amendment to the Comprehensive Plan for PCS Communications Facilities in the Pinelands, dated August 1, 2011)

**Legend**

- Pinelands Area
- County
- Municipal
- New Antennas Only
- New Structures





# ANALYSIS OF THE T-MOBILE PCS PLAN FOR THE NEW JERSEY PINELANDS

Prepared for  
**The Pinelands Commission**  
PO Box 359  
New Lisbon, NJ 08064



Prepared by  
Clifford Price  
Hank Beard

ESO-12- 001  
October 2011

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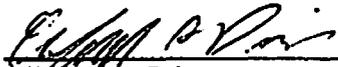
## Distribution Statement

**Alion Science and Technology**  
OSG/Electromagnetic Solutions Operation  
306 Sentinel Drive, Suite 300  
Annapolis Junction, Maryland 20701

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This report is approved for release and publication from Alion Science and Technology,  
Electromagnetic Solutions Operation.

Prepared by:



Clifford A. Price  
Senior RF Engineer, Alion

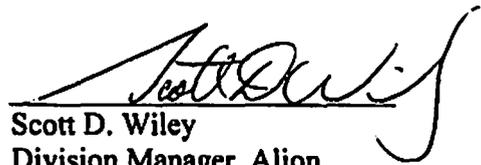
Approved by:



Charles A. Gettier  
Program Manager, Alion



A. Henry Beard  
Program Manager, Alion



Scott D. Wiley  
Division Manager, Alion

## BACKGROUND

The Pinelands Commission, the state agency responsible for protecting, preserving and enhancing the natural and cultural resources of the Pinelands Area, has requested Alion Science and Technology to assist the Pinelands Commission staff in its review of a T-Mobile PCS amendment submission<sup>1</sup> to an existing Telecommunications Plan, which consists of both Cellular and PCS components, for the New Jersey Pinelands. The proposed Amendment indicates a need for 36 additional cells, including new towers, throughout the New Jersey Pinelands. The proposed Amendment relates directly to regulations (N.J.A.C. 7:50-5.4) in the New Jersey Pinelands Comprehensive Management Plan (CMP).

The Pinelands Commission is a regional land use agency with jurisdiction over all or portions of seven counties and 53 municipalities in southern New Jersey. Since 1981, when the CMP went into effect, the construction of tall structures has been discouraged throughout much of the New Jersey Pinelands (hereinafter Pinelands). These regulatory limitations, which incorporated a 35-foot height limit in N.J.A.C. 7:50-5.4, were intended to prevent the littering of the Pinelands skyline with structures that significantly detract from the scenic qualities which federal and state Pinelands legislation called upon the Pinelands Commission to protect. There were, of course, exceptions to this requirement: certain structures were allowed to exceed 35 feet in height; and no restrictions were placed on height within the two most development-oriented Pinelands management areas – Regional Growth Areas and Pinelands Towns (a map identifying the various Pineland management areas is located at <http://www.nj.gov/pinelands/landuse/gis/maps/>).

To accommodate what it saw as a legitimate need, in 1995, the Pinelands Commission amended N.J.A.C. 7:50-5.4 to permit telecommunications facilities to exceed the 35-foot height limit. However, while the Commission desired to help facilitate coverage needs in the Pinelands, it was also essential to keep the number of towers, and their visual and ecological impacts, to an absolute minimum. As such, the Commission required that a comprehensive plan for the entire Pinelands must be first prepared and approved by the Commission before a facility exceeding 35 feet in height could be permitted in the conservation-oriented (“height restricted”) areas of the Pinelands.

The new regulations recognized that: local communications systems rely on a network of facilities to receive and transmit radio signals; the location of each cell within this network has an effect on the location of other cells; and a well- designed and integrated network can avoid proliferation of unnecessary towers throughout the Pinelands and most importantly, in its most conservation-oriented (“height restricted”) and visually sensitive (“height restricted”) areas. Following Plan approval, the

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<sup>1</sup> Warren Stilwell, *Amendment to the Comprehensive Plan for PCS Communications Facilities in the Pinelands on behalf of T-Mobile Northeast LLC, Doing Business as T-Mobile*, August 1, 2011, Cooper Levenson Law Offices, Atlantic City, NJ 08401

regulations anticipate that specific sighting decisions will be made such that visual impact will be minimized, and that individual development applications will be submitted and evaluated against a series of site specific development standards. When a new need is demonstrated, a provision exists for amendments to an approved plan. It is under this provision that the Commission seeks to evaluate the T-Mobile/Sprint proposed Amendment.

The Commission requested Alion support in determining whether the new towers proposed within the height-restricted areas of the Pinelands are needed from an R/F coverage standpoint. In making this determination, the Alion shall consider co-location at sites identified in the approved Plan, whether any proposed sites can be combined without losing adequate coverage, and whether any proposed facilities can be replaced outside of a height-restricted area.

## **ANALYSIS**

Alion conducted a review of the available technical materials including the site plan and the applicable zoning regulations.

Technical issues that were reviewed included current service coverage and service criteria, the consideration of any existing structures, towers, and commercial buildings, the site selection process, and justification for the proposed antenna location.

The Amendment contains a series of coverage plots that are intended to show the necessity for the proposed tower locations. Alion used their proprietary RF Analyst Toolbar and the Okumura-Hata model to verify T-Mobile's coverage results. The RF Analyst Toolbar uses ESRI ArcGIS and advanced urban and terrain-dependent propagation path loss models to determine system coverage and performance and simulate the propagation of radio-frequency (RF) energy in the environment. At the heart of this tool is engineering software that computes the effect of terrain and other environmental factors on the propagation of RF energy. Built-in antenna performance data combined with Geographic Information Systems (GIS) data shows the performance of radio frequency signals as affected by topography and man-made structures. The Okumura-Hata model is a well known, industry accepted model used to predict signal losses of cellular transmissions. Lacking actual data from T-Mobile, Alion assumed system characteristics (i.e., transmitter powers, gains, and antenna heights) based on frequency assignment data from the FCC database. Based on its analysis using the Okumura-Hata model and RF Analyst Toolbar, Alion finds the coverage plots presented by T-Mobile to be reasonable.

Based upon review of the proposed tower locations and the coverage plots, it is clear that the proposed sites cannot be combined without negatively affecting coverage. A similar review determined that it is not feasible to relocate the proposed sites outside of the height-restricted areas without negatively affecting coverage. However, the Alion review did raise questions regarding the ability of T-Mobile to co-locate with other wireless providers and/or utilize existing structures for its proposed sites. Specific comments regarding co-location and the use of existing structures are listed below by site. A complete list of the proposed sites along with any comments/observations is presented in Appendix A.

- PCS Plan Facility 72: The Amendment states the Site will use an existing structure in the form of First Energy Electric Transmission Tower. The closest tower found in Google Earth or ArcGIS is 900 meters away from the proposed location. T-Mobile should be alerted of this discrepancy in case it affects their choice of location.
- PCS Plan Facility 82: This site is in a Regional Growth Area. However, it appears there is an existing tower 400 meters away at latitude 39.7398 N and longitude 74.2807W. T-Mobile should review the plan for Facility 82
- PCS Plan Facility 83: ArcGIS files indicate there is a fire tower at latitude 39.9213N and longitude 74.2586W. The tower is not visible in Google Earth. If they have not done so already, T-Mobile should review the plan for Facility 83.
- PCS Plan Facility 85: This site is in a Regional Growth Area. T-Mobile states a new structure is required, but there appears to be a water tank 900 meters away at latitude 39.9394N and longitude 74.2155W and a power line tower 130 meters away. T-Mobile should review the plan for Facility 85.
- PCS Plan Facility 86: T-Mobile states a new structure is required, but there appears to be an existing tower 500 meters away at latitude 39.7508N and longitude 74.3700W. If they have not done so already, T-Mobile should review the plan for Facility 86.
- PCS Plan Facility 92: T-Mobile states a new structure is required, but AT&T site 323 appears to be 1 km away at latitude 39.4791N and longitude 74.5758W. There also appears to be a cell plan Site 586 in the area although not visible with Google Earth. If they have not done so already, T-Mobile should review the plan for Facility 92.
- PCS Plan Facility 107: T-Mobile states that the planned facility is near a possible extraction site. However, Google Earth images do not support this assertion.
- PCS Plan Facility 111: T-Mobile states a new structure is required, but there appears to be a power line tower 200 meters away. If they have not done so already, T-Mobile should review the plan for Facility 111.

## CONCLUSION

In summary, the T-Mobile Amended Plan constitutes an accurate representation of the existing and proposed communication facilities necessary to provide adequate, reliable wireless service to the New Jersey Pinelands region now and for the near future. Based upon review of the proposed tower locations and the coverage plots, it is clear that the proposed sites cannot be combined without negatively affecting coverage. A similar review determined that it is not feasible to relocate the proposed sites outside of the height-restricted areas without negatively affecting coverage. However, the Alion review did raise questions regarding co-location with other wireless providers and/or utilization of existing structures for the proposed sites.

## APPENDIX A

New #	Site # (per last revision)	Notes
69	OCE002	Concur that this site is located in the vicinity of a resource extraction area.
70	OCE003	Concur that this appears to be a substantially developed area.
71	OCE006	Concur that the site appears to be in the area of a cement making site as well as a Municipal Utility Authority well.
72	OCE012	T-Mobile states the Site will use an existing structure in the form of First Energy Electric Transmission Tower. The closest tower found in Google Earth or ArcGIS is 900 meters away from the proposed location. T-Mobile should be alerted of this discrepancy in case it affects their review the plan for Facility 72.
73	ATT357	Using previously approved site
74	OCE017	Using existing structure
75	OCE019	Site in Regional Growth Area
76	OCE025	Using existing structure
77	OCE027	Concur with T-Mobile assessment that there are no existing structures/sites in the general area, that the area is a Preservation Area, and that certification of a comprehensive plan is required.
80	ATT358	Using previously approved site
81	OCE032	The site appears to be in the area of an existing junkyard.
82	OCE035	Site in Regional Growth Area. Note, it appears there is an existing tower 400 meters away at latitude 39.7398N and longitude 74.2807W.
83	OCE040	Concur with T-Mobile assessment that there are no approved sites in the general area and that the area is a Forest Area. ArcGIS files indicate there is a fire tower at latitude 39.9213N and longitude 74.2586W. The tower is not visible in Google Earth. If they have not done so already, T-Mobile should review the plan for Facility 83.
85	OCE059	Site in Regional Growth Area. T-Mobile states a new structure is required. However, there appears to be a water tank 900 meters away at latitude 39.9394N and longitude 74.2155W and a power line tower 130 meters away. If they have not done so already, T-Mobile should review the plan for Facility 85.
86	OCE065	Site is near existing fire department. T-Mobile states a new structure is required but there appears to be an existing tower 500 meters away at latitude 39.7508N and longitude 74.3700W. If they have not done so already, T-Mobile should review the plan for Facility 86.
88	OCE067	Concur with T-Mobile assessment that there are no existing structures/sites in the general area, that the area is a Preservation Area, and that certification of a comprehensive plan is required.
90	1BL5827D	Concur with T-Mobile assessment that there are no existing

		structures/sites in the general area, that the area is a Forest Area, and that certification of a comprehensive plan is required.
91	1AT6619G	Site is near existing New Jersey State Facility.
92	1AT6447C	T-Mobile states a new structure is required but AT&T Site 323 appears to be 1 km away at latitude 39.4791N and longitude-74.5758W. There also appears to be a cell plan Site 586 in the area although not visible with Google Earth. If they have not done so already, T-Mobile should review the plan for Facility 92.
93	1BL6450C	Site in Regional Growth Area
94	1CU6614A	Concur with the T-Mobile statement that a new structure is required and the site is proposed to be located in a certified commercial area with mixed uses and therefore, it meets Section 6 requirements.
95	1CU6776A	Using existing structure.
96	1CM6777D	Concur with the T-Mobile statement that a new structure is required. Also concur that the T-Mobile Amendment proposes to use the least number of towers to achieve required coverage, as required by N.J.A.C. 7:50-5.4 c vi. 6.
97	1AT6782C	Concur with T-Mobile assessment that there are no existing structures/approved sites in the general area, that the area is a Forest Area, and that certification of a comprehensive plan is required. Also note that there is a mixed use commercial area within one mile of the proposed location
98	1BL7640	Concur with T-Mobile assessment that there are no existing structures/approved sites in the general area and that the area is a Preservation Area. Certification of a comprehensive plan is required. Also note, there is junk yard within 1 km of the proposed location.
99	1AT6798D	Using existing structure.
100	1AT6795D	Site in Regional Growth Area
101	1AT6828C	Site in Regional Growth Area
103	1AT6789A	Site in Regional Growth Area
104	1BL6234D	Using existing structure.
105	1GL6623F	This site is in a Rural Development Area.
107	1CM6839U	T-Mobile states that the planned facility is near a possible extraction site. However, Google Earth images do not support this assertion.
108	1BL6917E	Using existing structure.
109	1BL7311	Site in Regional Growth Area
110	1BL7312	This site is in an Agricultural Production Area.
111	1CA7298B	T-Mobile states a new structure is required but there appears to be a power line tower 200 meters away. If they have not done so already, T-Mobile should review the plan for Facility 111.

## Appendix D – Hierarchical Policy for Siting Individual Wireless Communications Facilities

The Plan incorporates a one-mile radius around every proposed facility's approximate location. To properly apply the CMP's standards within the context of this Plan, if approved, the following procedure will be used when the companies seek to finalize these approximate locations.

1. Except as otherwise specifically noted in this report, there will be a general presumption that a facility's final location will be within the immediate area of the location proposed in this Plan, i.e., the Pinelands management area group and municipality described in the Plan as further defined using the geographic coordinates prepared by the Commission's staff. If it proves to be infeasible to site the facility on an existing, suitable structure (i.e., one that does not require a change in mass or height which significantly alters its appearance), the use of other structures or, as appropriate, eligible sites which meet the standards in N.J.A.C. 7:50-5.4(c)4 will be considered. The company's feasibility assessment will need to include confirmation from other parties to this Plan who are slated to share the facility that the selected site meets their needs.
2. If siting of the facility within the immediate area of the Plan location is infeasible, the company will broaden its search area consistent with the service need for the facility and in conformity with other appropriate technical considerations, but in no case will that area extend beyond a one-mile radius. This will require consultation with other parties to this Plan who are slated to share the facility to ensure that any new location meets their needs.
3. Within that broader search area, consideration will first be given to locating the needed antenna on an existing, suitable structure if that structure does not require a change in mass or height that significantly alters its appearance.
4. Failing that, the use of other existing structures that may require a significant change in mass or height (if appropriate in view of the CMP's standards, including those related to visual impacts) or sites for a new structure within the search area will be evaluated. Only those structures or sites which meet the requirements of N.J.A.C. 7:50-5.4(c)4 and other applicable CMP standards will be selected. If that broader search area crosses the boundaries of the Pinelands Area or its management areas, the company will seek to site the facility in the following order of preference:
  - a. Outside of the Pinelands;
  - b. Pinelands Regional Growth Areas, Pinelands Towns and the developed portions of Military and Federal Installation Areas;
  - c. Pinelands Rural Development Areas, Agricultural Production Areas, undeveloped portions of Military and Federal Installation Areas and Pinelands Villages other than those expressly identified in N.J.A.C. 7:50-5.4(c)6; and,
  - d. Pinelands Preservation Area District, Special Agricultural Production Areas, Forest Areas and the Pinelands Villages expressly identified in N.J.A.C. 7:50-5.5(c)6.

5. If no feasible structures or sites are found, the company should reexamine the surrounding facility network and propose an amendment to this Plan which conforms to CMP standards. Of course, the company retains its right to seek a waiver of strict compliance from the standards of the CMP, although the Executive Director notes that the tests will be difficult to meet.



## PINELANDS PRESERVATION ALLIANCE

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September 29, 2011

Larry Liggett  
NJ Pinelands Commission  
15 Springfield Road  
P.O. Box 359  
New Lisbon, New Jersey 08064

Re: T-Mobile Northeast, LLC's amendment to PCS Communications Facilities Plan

Dear Mr. Liggett:

The Pinelands Preservation Alliance reviewed the amendment to the PCS Communications plan submitted by T-Mobile Northeast, LLC and has the following comments:

### **PCS - 69**

This location comes up in Manchester Township on the Heritage Mineral Tract, which is 8,000 acres in size. A portion of this tract, approximately 3,450, acres are within the Pinelands Protection Area. Since the applicant is asking for this as a location in its PCS plan they must be looking to place a tower on the Pinelands portion of the tract.

A settlement agreement was signed by the land owner, DEP CAFRA and the Pinelands Commission which calls for no development of those portions of the Heritage Mineral tract located within the Pinelands area. Development of a cell tower on those portions of the tract that are considered deed restricted or areas to be used for habitat enhancement pursuant to the stipulation of settlement would void this agreement.

Site #69 should be removed from plan.

### **PCS – 70**

This location comes up at the intersection of Horicon Avenue and Route 539, mostly surrounded by state owned land. The PCS document says there appears to be “substantially

developed areas” that would be appropriate but looking at aerial photos there are no mining or landfill sites. There is a paint ball facility and a gun club but no substantial development in the area. No sites that meet the CMP requirements can be seen on aerial photos and disturbance is within the joint base property.

### **PCS - 72**

Once this site is in the plan, what are the assurances that the applicant will use the First Energy Electric transmission towers? If they don't get permission will this mean an additional new tower? This concern is raised due to the large amount of undeveloped public open space in the area and PPA would not support its use.

### **PCS - 76**

The location comes up in the Barnegat Township Forest Area and is listed as an existing structure. This existing structure may be the sand and gravel mining site known as the Old Johnson pits. The site is currently being used as a solid waste trucking depot, without any applications to Barnegat Township or the Pinelands Commission. This violation needs to be resolved before anyone is allowed to move forward with a plan that includes this site.

PPA learned from the first cell tower plan approved that even though the plan says there is an “existing structure” the towers for sand and gravel mining operation will not support what is needed to provide cell service. It will entail a new larger structure and should be considered a new structure, not an existing one, in the plan.

### **PCS - 77**

This location comes up in Lacey Township in the Preservation area and is near Webbs Mills in the Greenwood Wildlife Management Area, which is state owned land. This would be on the edge of the Forked River Mountain 5 mile buffer, no structures or sites that meet the CMP currently exist. This location should be removed from plan.

### **PCS - 81**

This location comes up in Lacey Township in the Forest Area and is near a junkyard which would qualify as existing commercial, but if the applicant does not secure this location, the closest alternative site would be the firehouse down the road, meaning encroachment into the 5 mile buffer of the Forked River Mountains. This site should not remain in the plan unless there are assurances from the applicant that it will not enter the 5 mile buffer of the mountains.

### **PCS - 83**

This location comes up in Berkeley Township in the Forest Area at the intersection of Dover Road and Pinewald-Keswick Road. Double Trouble State Park and County Route 530 intersection property is located in this area. There are no locations that meet the CMP

requirements. Moving west is towards RJ Miller AirPARK and east is towards the Forked River Mountains. The applicant should demonstrate that there is a suitable location or Site #83 should be removed from plan.

### **PCS - 86**

This site is listed as being in the Forest Area of Stafford Township. A view of aerial photos doesn't reveal any sites that meet the CMP requirements. The PCS plan suggests there is an existing firehouse. This may be the firehouse in Warren Grove in Little Egg Harbor Township, but this firehouse lot does not appear to be large enough to support new construction of a cell tower. If it cannot be sited at the firehouse there doesn't appear to be a location that meets the CMP and this location should not remain in the plan. It is hard to imagine that a cell tower could be compatible with the existing structures and uses of the Village of Warren Grove.

### **PCS – 88**

This site is also in Little Egg Harbor Township, near Route 539 & Munionfield Road. This is the Pinelands Preservation Area and is entirely surrounded by state owned public open space. This area is within the area listed in the Special Areas Map of the CMP, Figure 7.1, page 204 as the area necessary to maintain ecological integrity of the Pines Plains. It is documented habitat for a large number of threatened and endangered species, receiving an ecological integrity score of 100%, which would make it even harder to site a cell tower. Without a location that meets the CMP for siting a cell tower this site should be taken out of the plan.

### **PCS-107**

This site is located in Estell Manor in the Forest Area. No mining sites, previously disturbed lands, and no structures currently exist. This area includes the Great Egg Harbor Wild and Scenic River boundary. Without an idea of what the company's alternatives might be this location should be removed from plan.

### **PCS -111**

This site is located in Waterford Township in the Rural Development Area. The only commercial or industrial zone in the area is the Atco Raceway. If it is not placed at the raceway, PPA would not be supportive of the area to the east which is Wharton State Forest.

Respectively submitted,

Theresa Lettman  
Director for Monitoring Programs



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS AIR MOBILITY COMMAND  
JOINT BASE MCGUIRE-DIX-LAKEHURST

Appendix F  
Executive Director's Report  
October 28, 2011

30 Sep 2011

Dennis Blazak  
Joint Base McGuire-Dix-Lakehurst  
Highway 547, Building 5  
Lakehurst, NJ 08733

Pinelands Commission  
15C Springfield Road  
PO Box 359  
New Lisbon, NJ 08064

On behalf of Joint Base McGuire-Dix-Lakehurst (JB MDL) New Jersey, the following comments are provided regarding a proposed amendment to the Comprehensive Management Plan for PCS Communications Facilities in the Pinelands, dated 1 August 2011, by T-Mobile. JB MDL became aware of the T-Mobile proposal on 27 September, the same day as the Public Hearing, and could not make comments in person.

The materials available on the Pinelands Commission website do not provide enough information to determine if the proposed changes will have a significant impact to JB MDL operations. Specifically;

1. Six tower locations (69, 70, 71, 72, 90, and 104) are on or close to the Joint Base. The exact location, site elevation, and tower height are necessary to determine if the towers will interfere with military aviation. Three of the towers are aligned with military runway approaches or are within Accident Potential Zones.
2. Three towers (77, 76, and 86) are located along the flight path between JB MDL and the Warren Grove Aerial Gunnery Range. Location, elevation, and height data are necessary to determine if these towers would interfere with flights between these two facilities.
3. It is unclear how T-Mobile's written materials can imply that the towers will be too short to require FAA concurrence when tower height is not provided in any of the documents.
4. It is unknown if the towers will be equipped with navigational lights to prevent aircraft collisions.

The Joint Base is in a phase of vibrant growth and has been the recipient of additional missions from other base closures. Our air traffic has been increasing. It is critical that cell phone tower placement, height and lighting be carefully considered as our mission increases in and around NJ. Military aviation has been a traditional and accepted use of the Pinelands for almost one hundred years.

JB MDL looks forward to commenting on the proposed changes to your plan when information can be provided to determine the specific impacts of the changes. Please provide the information for our review when available. If you have any questions, please contact me at 732-323-7544.

  
DENNIS BLAZAK, GS15, DFAC  
Deputy Asset Manager, 87<sup>th</sup> Civil Engineer Squadron

	Site	Previous Plan	New Tower	Existing Structure	Ht.-Restricted Area	Least Number Area	Likely Consistent	PAD	FA	SAPA	APA	RDA	PT	PV	RGA	MFIA	County	Municipality	Site
1	69		•		•	•	•		•								Ocean	Manchester	OCE002
2	70		•		•	•	•	•									Ocean	Manchester	OCE003
3	71		•		•		•					•					Ocean	Jackson	OCE006
4	72			•	•	•	•		•								Ocean	Jackson	OCE012
5	73	•	N/A	•	N/A	N/A	N/A	•									Ocean	Berkeley	AT&T357
6	74			•	•	•	•		•								Ocean	Manchester	OCE017
7	75		•				•								•		Ocean	Barneгат	OCE019
8	76			•	•	•	•		•								Ocean	Barneгат	OCE025
9	77		•		•	•	•	•									Ocean	Lacey	OCE027
10	80	•	N/A		N/A	N/A	N/A		•								Ocean	Berkeley	AT&T358
11	81		•		•	•			•								Ocean	Lacey	OCE032
12	82		•				•								•		Ocean	Stafford	OCE035
13	83		•		•	•			•								Ocean	Berkeley	OCE040
14	85	•	N/A	•	N/A	N/A	N/A								•		Ocean	Berkeley	OCE059
15	86		•		•	•	•		•								Ocean	Stafford	OCE065
16	88		•		•	•		•									Ocean	Little Egg Harbor	OCE067
17	90		•		•	•	•		•								Burlington	Pemberton	1BL5827D
18	91		•		•	•			•								Atlantic	Estell Manor	1AT6619G
19	92		•		•	•	•							•			Atlantic	Galloway	1AT6447C
20	93		•		•	•	•								•		Burlington	Medford	1BL6450C
21	94		•		•	•	•					•					Cumberland	Maurice River	1CU6614A
22	95	•	N/A	•	N/A	N/A	N/A		•								Cumberland	Maurice River	1CU6776A
23	96		•		•	•	•							•			Cape May	Dennis	1CM6777D
24	97		•		•	•	•		•								Atlantic	Estell Manor	1AT6782C
25	98		•		•	•		•									Burlington	Shamong	1BL7640
26	99			•	•	•	•					•					Atlantic	Buena Vista	1AT6798D
27	100		•				•								•		Atlantic	Hamilton	1AT6795D
28	101	•	N/A		N/A	N/A	N/A								•		Atlantic	Egg Harbor	1AT6828C
29	103			•			•								•		Atlantic	Egg Harbor	1AT6789A
30	104			•			•									•	Burlington	New Hanover	1BL6234D
31	105		•		•	•	•					•					Gloucester	Monroe	1GL6623F
32	107		•		•	•			•								Atlantic	Estell Manor	1CM6839U
33	108		•		•	•	•					•					Burlington	Evesham	1BL6917E
34	109		•		•	•	•								•		Burlington	Shamong	1BL7311
35	110		•		•	•	•				•						Burlington	Shamong	1BL7312
36	111		•		•	•	•					•					Camden	Waterford	1CA7298B
		5	25	9	20	16	29	5	13	0	1	6	0	2	8	1			