

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:

APPLICATION OF SBA TOWERS II, LLC FOR A
CERTIFICATE OF ENVIRONMENTAL
COMPATIBILITY AND PUBLIC NEED FOR
THE CONSTRUCTION, MAINTENANCE AND
OPERATION OF A TELECOMMUNICATIONS
FACILITY LOCATED AT 49 BRAINERD ROAD,
NIANTIC (EAST LYME), CONNECTICUT.

DOCKET NO. 396

March 17, 2010

RESPONSES OF NEW CINGULAR WIRELESS PCS, LLC ("AT&T")
TO FRIENDS OF PATTAGANSETT TRUST INTERROGATORIES TO
SBA TOWERS II, LLC and INTERVENORS
AT&T AND CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS

- Q1. Have you or your corporate predecessors or affiliates installed a micro-cell wireless communications facility in New York or New England?
- A1. Yes.
- Q2. If so, how many times and in what locations?
- A2. Eight locations all of which are in-building systems.
- Q3. How many times have you successfully installed a micro-cell wireless communications facilities outside of Connecticut?
- A3. That information is not readily available to AT&T's Connecticut personnel, but presumably microcells have been deployed by AT&T throughout the United States in appropriate circumstances.
- Q4. Are there other sites in East Lyme that you are considering developing wireless communications facilities? Please describe.
- A4. Not at this time.
- Q5. Please name all carriers with whom you have reason to believe will co-locate on the proposed facility.
- A5. This question is best answered by the Applicant.

- Q6. Did you consider locating at the site located off Rte 156 in East Lyme at Latitude 41 18 57.48 Longitude 72 13 58.4 (Indian Woods Road)? Were you aware that this site has been leased by T-Mobile to provide coverage to the same area as the SBA proposed site? If so, explain why this site cannot provide adequate coverage to the target area with less visual impact.
- A6. AT&T was recently made aware of the property and T-Mobile's interest therein. A review of more precise coordinates provided to AT&T by T-Mobile indicates that this location does not provide the necessary coverage to the target area. Further, this location is a mere 0.6 miles from an existing AT&T facility located at 15 Liberty Way, East Lyme.
- Q7. Please provide coverage and visual impact maps (existing, proposed and combined) for the location identified above in Int #6. For the coverage maps please use the same coverage modeling program with the same inputs (other than those that are site specific), power assumptions, antenna configuration, loss ratios and scale as the proposed site and present the results on a clear plastic overlay for comparison purposes.
- A7. Please see requested coverage map included as Attachment 1. Requests for visual resource analyses are best directed to the Applicant.
- Q8. Please identify the size of the search ring and explain why that radius was chosen.
- A8. AT&T's original search ring was centered on the Black Point peninsula. The search ring was approximately one (1) mile in diameter given terrain and coverage objectives.
- Q9. What is the percent of dropped calls in the target area?
- A9. Information regarding dropped calls of sectors of surrounding sites which are generally in the direction of the area of need were reviewed for a period of approximately one month in duration in 2010. Blocked and dropped calls were in excess of 4% in some cases for such sectors.
- Q10. Are you aware of the build out notification required of spectrum license holders filed with the FCC by any of the potential tenants on the proposed tower for the Basic Trading Area which includes East Lyme? Can you provide a copy of your 5 and 10 year build out notifications and any technical justification and/or coverage maps filed in conjunction therewith?
- A10. AT&T is aware of the 5 and 10 year build-out notification requirements referenced for its licensed PCS spectrum. AT&T holds licenses in the PCS-A3, PCS-D and PCS-E blocks in the area of East Lyme which are the subject of the notification requirements noted. While certain materials related to those filings are proprietary, some information is available to the public on the FCC's website at:
http://wireless.fcc.gov/licensing/index.htm?job=const_req_by_service.
The information available on the FCC website does indicate that AT&T has completed its build-out requirements. Of note, the FCC standards regarding, for example, 5 year build-

out notifications only require proof that a discernable call can be made by one-quarter (25%) of the population in the licensed area. These are not a design standard for the purposes of serving the public need on a town by town basis. Rather, it is a regulation designed to ensure that a licensee is making at least limited use of a federally regulated resource (i.e., specific spectrum) within either 5 years of receiving its FCC license.

- Q11. Have you performed drive tests to determine the need for coverage? If so, what methods were used and what data was gathered from the drive test?
- A11. Yes. AT&T hires an independent company to base line the network using scanning receivers on random roads throughout the state. They collect the signal levels and provide AT&T reports.
- Q12. In what way have you determined the public need for this particular facility?
- A12. Drive tests and coverage modeling, lost calls during drive test, lost calls on adjacent cell sites and trouble reports to AT&T.
- Q13. Specifically what data do you have evidencing this public need?
- A13. See above A12.
- Q14. How many residential wireless customers will this facility serve?
- A14. AT&T has a few thousand customer accounts in East Lyme. Notably, Niantic is a popular shore destination and AT&T's coverage is anticipated to serve not only full-time residents but also many part-time residents, business visitors, tourists and vacationers who come to the area annually.
- Q15. Are emergency communications for the Town of East Lyme being served adequately at the present time?
- A15. That question is best answered by the Town of East Lyme.
- Q16. Please produce any data or engineering reports which proves that the tower and its 'fail points' as designed will collapse into itself and not the neighbors' residential yards or the adjacent public trail head?
- A16. This question is best answered by the Applicant.
- Q17. What surety does SBA propose to do to ensure the proper decommissioning of the facility once it is no longer needed or in use? And will SBA provide a bond to ensure decommissioning?
- A17. This question is best answered by the Applicant.

Q18. What percentage of the proposed screening trees for the facility will be guaranteed to survive five years?

A18. This question is best answered by the Applicant.

Q19. Please describe the methods used by your visual impact consultant to calculate seasonal visibility.

A19. This question is best answered by the Applicant.

Q20. How many audible decibels will the associated equipment produce at the nearest points of the property line for the proposed Brainerd Road site?

A20. The noise level should be approximately 46 dBa at the nearest property line.

Q21. Do you have any data on the expected frequency of power outages requiring use of a backup?

A21. No. However, power outages that would require use of a generator are anticipated to be infrequent. Most power outages are less than eight hours in duration.

Q22. What computer software (name, producer, version) did you use in confirming the allegedly significant gap in coverage surrounding the site?

A22. ATOLL by Forsk.

Q23. Is this software available for inspection so that others may make independent confirmation of its accuracy?

A23. Inquiries should be made to Forsk which provided the software which AT&T has a license to use.

Q24. In generating the proposed coverage maps, what average tree height and leaf coverage was assumed in the model?

A24. The Atoll program uses a clutter file to determine the types of blockages in a given area. The tree heights in this area were assumed to be 60 feet.

Q25. How was the height of 170 feet determined for the tower?

A25. The height was chosen to cover as much of Black Point, including business and residential areas, as well as the Rocky Neck State Park, and the surrounding highways local thoroughfares and Amtrak as possible.

Q26. How are "repeaters, microcell transmitters, distributed antenna systems and other types of transmitting technologies" not feasible in the proposed area of East Lyme ?

A26. The area where service is needed in this application is a wide area of poor or no service. Microcells or repeaters are better suited to small areas for fill in use and/or commercial in-building service. Also, repeaters offer no added capacity in the network and require a line of site donor facility.

With respect to distributed antennas systems (“DAS”), we note that these are generally lower power, low gain systems used in high traffic areas (i.e. capacity demand) which rely on a combination of fiber optics, transmitting antenna sites and a base station facility. The service requirements in this area of East Lyme relate to coverage on a macro level as opposed to a discrete system such as a DAS network which employs a different technology.

Q27. Why are such technologies not feasible?

A27. Such technologies are far better suited to small-scale systems inside commercial buildings, malls or tunnels or covering small sections of a roadway. Such low-tier systems cover a very limited distance from the network “nodes” and require equipment installations near any point requiring coverage. For an outdoor system serving large areas and large number of customers, the quantity of cable, antennas and various radio and control units required would make this an entirely impractical method of network deployment.

In addition, new frequency bands (such as the current deployment of 700 MHz or AWS at 1700 to 2200 MHz) or new technologies (such as broadband UMTS or LTE) to a DAS system may require the complete changeout of system components such as radios, network nodes, amplifiers, antennas, etc., resulting in significant disruption of service. With the current trends toward wireless as a landline replacement and source of E911 service, such lengthy disruptions pose an ever-increasing problem for wireless customers.

Also, it is often impossible to install a low-tier system in areas with buried power lines and no telephone poles.

Q28. What studies did you undertake to eliminate alternate technologies from consideration given that they are of lesser impact to surrounding property uses?

A28. No specific studies were undertaken, but it is certainly not “given” that alternate technologies are automatically of lesser impact to the surrounding properties. Running cable and installing large numbers of small units on telephone pole on streets throughout the coverage objective may very well be more disruptive than installing one tower and one set of equipment at one location, to say nothing of the traffic and street obstruction that may result from routine system troubleshooting and maintenance or equipment changeouts at a large number of locations throughout the coverage objective instead of a single changeout or upgrade at one location.

Q29. Who conducted the feasibility studies on alternate technologies?

A29. See Answers 26, 27 & 28

Q30. Please provide the feasibility studies or data by which you determined the lack of feasibility?

A30. See Answers 26, 27 & 28

Q31. Have you considered using a combination of DAS or leaky coax along the rail lines in conjunction with a shorter tower to cover the target area?

A31. While a DAS system along the rail lines might provide coverage to the rail lines, the overall coverage objective of the site is all the roads, businesses, and residences within the coverage gap, including a substantial portion of Black Point. Most of the coverage objective is a considerable distance from the rail line. The minimum height required for the AT&T antennas is driven by the need to achieve this overall coverage objective and therefore would not be reduced by the addition of a DAS system serving only the rail line. Addition of a DAS system along the rail line would only add complexity to the system without improving service to the required area

Q32. Is there a particular standard or decibel signal strength which you believe is necessary for adequate coverage for PCS (1900MHz) service in the East Lyme area? For 850MHz service? For 700 MHz

Our standard values of received levels are -74 dBm for in-building, -82 dBm in-vehicle, And -92 dBm for outdoor coverage. This area has a concentrated population and AT&T is designing this site to provide -74 dBm coverage.

A32. What particular dBm signal strength do you believe is necessary for in-vehicle coverage for PCS (1900MHz), 700 MHz and 850MHz in the target area?

A33. For 850 and 1900 the signal level is -82 dBm for in-vehicle. AT&T Connecticut has not been given the loss requirements from the AT&T Labs for 700 Mhz at this time.

Q34. In the proposed coverage maps submitted by the Applicant, what loss margin was assumed in the modeling?

A34. The loss margin is 110 dBm.

Q35. For any signal strength predicted by your coverage modeling, what percent of locations is assumed for reliability? (e.g: 85% of locations, 95%?)

A35. 95 % plus

Q36. Are you assuming that your target coverage is 'reliable service' or "adequate coverage"? Do these two terms differ? How do you define these two terms for the purposes of meeting the goals of the Telecommunications Act of 1996?

A36. AT&T's objective in building this site is to close a gap in its reliable service.

With respect to the Telecommunications Act of 1996, the first paragraph of the Act is:

To promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.

Wireless carriers have been instrumental in providing competition to wireline carriers. While wireless was originally a service using hard-wired, high-powered phones to provide radio communications mostly to people driving on highways, many consumers are dropping their landline phone service and using wireless as their sole means of communications. This trend in consumer demand has made it necessary for wireless carriers to provide higher levels of coverage in order to overcome the signal losses involved in providing service inside buildings.

With more customers using wireless as their sole means of communication, the wireless operator must also achieve levels of coverage reliability commensurate with being a provider of E911 service.

Demand for high speed wireless data services and integration of voice and data to achieve spectral efficiency require carriers to respond by equipping their networks with the increased signal coverage necessary to reliably provide this service.

All these factors have combined to raise the bar for wireless service and require more facilities to provide the capacity and coverage levels necessary to meet consumer demand.

Q37. Please describe what a P.02 level of service is and what is required by the FCC.

A37. P.02 relates to a 2% call blocking reliability. Technical requirements associated with cellular service which existed in the 1980s and early 1990s have largely been repealed by the FCC in light of the 1996 Telecommunications Act, introduction of PCS carriers and competition as a means to ensure that wireless carriers provide reliable services to the public.

Q38. If the proposed tower structure will have a diameter of 2 to 3 feet and antenna structures over 10 feet across, how does a balloon of 3 feet diameter to sufficiently place area residents on notice as to the true visual impacts of the proposed facility?

A38. This question is best answered of the Applicant.

Q39. What number of residential homes are located on the road where the tower is proposed?

- A39. This question is best answered of the Applicant.
- Q40. Do you have or have you conducted any studies regarding the impact of real estate property values by nearby cell towers?
- A40. No.
- Q41. Have you performed an analysis of the likely impact on real property values of the residences in the immediate vicinity of the proposed facility on Brainerd Road?
- A41. No
- Q42. When was the real estate value analysis conducted?
- A42. Not applicable.
- Q43. By whom was the real estate value analysis conducted?
- A43. Not applicable.
- Q44. Will you provide a copy of the real property value analysis performed by the Applicant?
- A44. Not applicable.
- Q45. Before making the current application, did you consider locating the tower closer to the lessor's house which is further away from the residences on Brainerd Road and is this a feasible alternative?
- A45. This question is best asked of the Applicant.
- Q46. Has the Applicant explored either as a matter of general business policy or as a matter of formal planning with the Siting Council, the use of less-intrusive technologies for the provision of service in residential areas?
- A46. AT&T endeavors to mitigate the impacts of its wireless facilities on the environment as required by State statutes administered by the Siting Council and as a matter of general business policy. The FCC is the agency with exclusive jurisdiction over wireless technologies and any alternatives as opposed to State and local governments and agencies.
- Q47. What was the result of any such planning identified in the previous interrogatory?
- A47. A systematic approach to wireless facility siting exists within AT&T whereby it seeks to use or modify existing tower sites, or tall structures for the installation of needed wireless infrastructure to serve the public and its customers prior to construction of wholly new towers sites consistent with state law.

- Q48. The Application targets coverage for mobile traffic on Route 156, Rte 95 and the Amtrak corridor. What data do you have indicating customer complaints or demands for service in these areas?
- A48. Areas targeted for coverage by AT&T in this Docket do not include I-95 and otherwise extend to include more than just the mobile transportation corridors of Route 156 and Amtrak. The information utilized to determine AT&T's need for the facility is discussed in A12.
- Q49. How many residences (as opposed to acres) will have year round views of the proposed towers? Seasonal views?
- A49. This question is best asked of the Applicant.
- Q50. Your visual impact analysis indicates that 97% of the visibility of the tower will occur over open water. Did you simulate any of the views from open water or in any way determine the impact to the scenic views of tourists and residents using the open water for recreation?
- A50. This question is best asked of the Applicant.
- Q51. How many wireless customers of the Applicant have residences in the proposed coverage area? How many of those have complained about inadequate technical service (as opposed to customer service, billing questions, etc.)?
- A51. AT&T has a few thousand customers in East Lyme. We are not able to ascertain how many of those customers live, travel or complain in the East Lyme area. Again, Niantic is a popular shore destination and AT&T's coverage is anticipated to serve not only full-time residents but also many part-time residents, vacationers and others who come to the area annually.
- Q52. What is the percentage of dropped calls and ineffective attempts, as compared to the remainder of the Market Trading Area in East Lyme?
- A52. Information regarding the lost calls and ineffective attempts from the sectors of surrounding cell sites that are directed toward the Brainerd Road area are included in A9.
- Q53. What is the lowest height you can construct a tower to improve coverage (with and without co-located carriers)?
- A53. As phrased, minor coverage "improvements" could be anticipated for AT&T from a wireless facility above the tree line. However, AT&T's antennas at the proposed height will provide seamless in-building and in-vehicle service from this one site to the areas targeted for service including the majority of Black Point and points north thereof and Rocky Neck State Park as well as local transportation corridors.

- Q54. Please identify all properties listed on the National Register of Historic places within the viewshed of the proposed tower?
- A54. This question is best answered by the Applicant.
- Q55. Has the Applicant determined whether the area of the proposed facility is served by fiber optic cable?
- A55. This question is best answered by the Applicant.
- Q56. Please identify how many other future sites will be necessary, at a minimum to accomplish adequate coverage for East Lyme.
- A56. AT&T does not have planned or funded any additional towers in East Lyme at this time.
- Q57. Please identify any sites in addition to the Proposed Facility on which the Applicant intends to seek permission from the Siting Council to construct or modify a facility in the subject area?
- A57. AT&T does not have planned or funded any additional towers in East Lyme at this time.
- Q58. Is the ability to send text, image and video necessary for public safety? If so, how?
- A58. This question would be better answered by public safety officials and might be directed to the Town of East Lyme, a party in this Docket, and its agencies. Generally speaking, AT&T is aware of text, image and video applications that are gaining prevalence in wireless public safety networks that do in fact aid in public safety. Examples include police interconnection to motor vehicle databases while conducting motor vehicle stops, fire department access to building plans while fighting fires, ambulance access to medical records while in transit to address patient care, homeland security applications, etc.
- Q59. Will changes in traffic usage necessitate heightening the tower beyond 170 feet, or contradict the need to install a 170-foot tower in the first place?
- A59. The need for the 170 foot height is driven by AT&T's need to provide service to the identified coverage gap in this area.
- Q60. Other than an inquiry into the DEP Natural Diversity Database, has the Applicant conducted any review of endangered or threatened species in the area of the Site?
- A60. This question is best answered by the Applicant.
- Q61. Will any blasting be necessary to complete construction of the facility? If so, what notice and in what form will be given to nearby property owners?

- A61. This question is best answered by the Applicant.
- Q62. Will construction practices conform to local building and zoning ordinances and regulations?
- A62. This question is best answered by the Applicant.
- Q63. Can you provide coverage propagation maps and isolated propagation maps for the proposed facility on clear plastic overlays using a scale that matches that of the Application?
- A63. Clear plastic overlays of the propagation plots requested are included in the version of these responses to the Friends of the Pattagansett Trust as requested for their use. Five additional sets of transparencies will also be bulk filed with the Siting Council. Hardcopies are included in Attachment 2.
- Q64. What is the minimum dBm signal strength to accomplish hand off of a call to an adjacent cell for 700Mhz, 850 MHz and 1900 Mhz?
- A64. Margins are built into the AT&T Link Budget for hand off to adjacent cell sites. Within an in-building or in-vehicle environment, the proper signal levels for handoff will be present.

CERTIFICATE OF SERVICE

I hereby certify that on this day, a copy of the foregoing was sent electronically and by hand to the Connecticut Siting Council with copy to:

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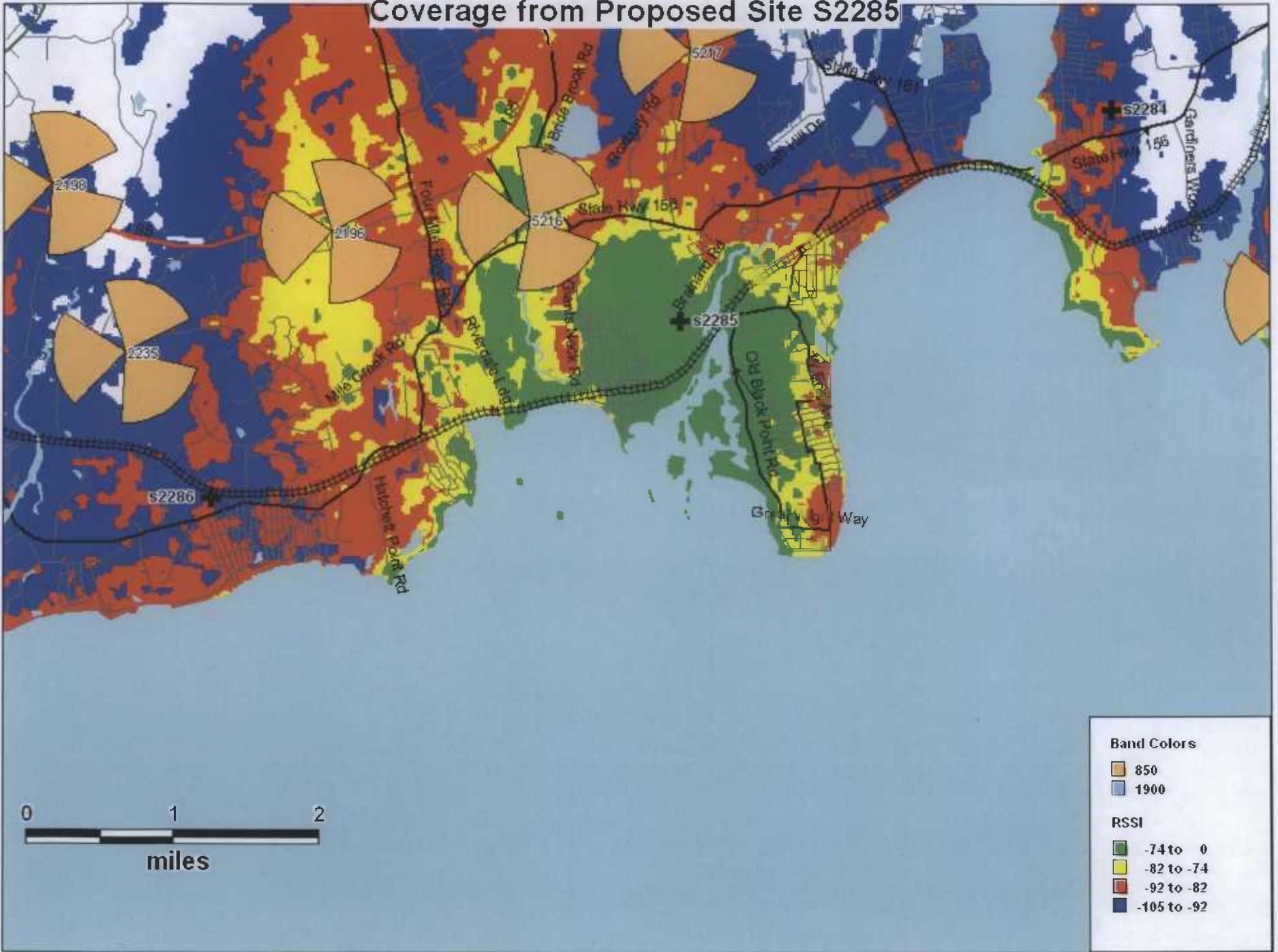
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Dated: March 17, 2010



Daniel M. Laub

Coverage from Proposed Site S2285



Current Coverage plus Proposed Sites S2284, S2285 and S2286

