**STATE OF CONNECTICUT**

**CONNECTICUT SITING COUNCIL**

APPLICATION OF NEW CINGULAR WIRELESS PCS, LLC (AT&T) FOR A CERTIFCATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF A TELECOMMUNICATIONS TOWER FACILITY AT 8 BARNES ROAD IN THE TOWN OF CANAAN (FALLS VILLAGE), CONNECTICUT

DOCKET: 409

Feb. 10, 2011

**PRE-HEARING SUBMISSION OF TOWN OF CANAAN INLAND WETLANDS/CONSERVATION COMMISSION**

The Town of Canaan Inland Wetlands/Conservation Commission ("IW/CC") hereby provides the Connecticut Siting Council with the following pre-hearing information available at this time regarding the above referenced proceedings.

A. List of Witnesses

Tim Abbott, Director, Greenprint, Housatonic Valley Association

Salvatore Dziekan, GIS Manager, Housatonic Valley Association

B. Pre-Filed Testimony of Witnesses

Attached hereto.

C. Exhibits to be Offered

The Commission intends, at this time, to offer the following Exhibits:

See attached Exhibit List with Exhibits

**Housatonic Valley Association**

150 Kent Road
P.O. Box 28
Cornwall Bridge, CT 06754
860-672-6678

1383 Pleasant Street
P.O. Box 251
South Lee, MA 01260
413-394-9796

19 Furnace Bank Road
P.O. Box 315
Wassaic, NY 12592
845-789-1381

www.hvatoday.org

THE LITCHFIELD HILLS GREENPRINT

1/19/2010

Connecticut Siting Council
Ten Franklin Square
New Britain CT 06051

To the members of the Connecticut Siting Council:

I write as Director of the Litchfield Hills Greenprint Collaborative in reference to Docket 409 - New Cingular Wireless PCS, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 8 Barnes Road, Canaan (Falls Village), Connecticut.

The Litchfield Hills Greenprint Collaborative is a partnership of 22 land trusts and community leaders sponsored by the Housatonic Valley Association and committed to strengthening local conservation efforts and protecting more land of regional significance across Northwest Connecticut.

We are greatly concerned that the proposed cellular tower under consideration at the Cobble Hill location will materially impair the regionally significant and locally-valued conservation attributes of this area, and that the application by Cingular Wireless does not adequately account for these negative impacts. Our objections on these grounds are detailed and documented more fully, below, and I am willing to make myself available to answer questions at any time in connection with this matter.

**The development of Cobble Hill for the construction of a cellular tower is incompatible with state policy:**

Connecticut's statewide Conservation and Development Policies Plan (2005-2010) identifies the Cobble Hill location as a Conservation Area. The definitional criteria for this designation state that it is Connecticut's policy for such Conservation Areas to "plan and manage, for the long-term public benefit, the lands contributing to the State's need for food, fiber, water and other resources, open space, recreation and environmental quality and ensure that changes in use are compatible with identified conservation values." According to the Office of Policy and Management; "A full review under the Connecticut Environmental Policy Act (CEPA) may be necessitated if the proposed development is of a greater dimension or intensity than the past use; Thereby requiring a thorough analysis of all potential impacts and mitigation measures, as well as, consideration of alternative sites within the region." This Statewide policy should govern the actions of the Siting Council and an alternative site be selected that is not within a state prioritized conservation area.

Federal and State Recognition of Conservation Significance:

- Federal designations: The Cobble Hill site is located within the federally designated **Upper Housatonic River Heritage Area, The Highlands Conservation Act Connecticut Highlands Region**, and the **Federal Forest Legacy Program Western Connecticut Legacy Area**. More specifically, Cobble Hill is within an area designated on page 44 of the USFS *Highlands Regional Study Pennsylvania and Connecticut 2010 Update* as a locally valued and regionally important special place. The Highlands Study ranks Cobble Hill itself as of moderate conservation value regionally on its maps of forest and recreational/cultural/values. The South Canaan Congregational Church, located immediately to the west and below the Tower site on Cobble Hill, is recognized on the National Register of Historic Places and its **scenic attributes would be profoundly impacted by the proposed tower when approached from the south and west on Rte 7 with Cobble Hill immediately to the right and above the steeple of the South Church.**

  State designations: As previously mentioned; Connecticut's statewide Conservation and Development Policies Plan (2005-2010) identifies the Cobble Hill location as a Conservation Area and development of communications infrastructure at this site is counter to that designation.

  Connecticut's Natural Diversity Database (NDDB) Dec 2010 identifies no less than 14 known locations of state listed endangered, threatened or special concern species or significant natural communities that completely surround and intersect with the Cobble Hill site. These species and natural communities are located downslope of the tower site. A thorough inventory of rare species and natural communities should be conducted at the Cobble Hill Site and in surrounding wetlands to determine their vulnerability to altered surface water hydrology, siltation and pollution associated with the construction and maintenance of communications infrastructure at this site.

  As recognized in the applicant's viewshed analysis report, Rte 7 in Canaan is a **State Designated Scenic Rd.** from the intersection with Rte 128 to the North Canaan Line (but see below for critique of the viewshed analysis report).

  The University of Connecticut's Center for Land Use and Research (CLEAR) analysis of forest fragmentation recognizes an area of core forest >500 acres on Cobble Hill. Development of a cellular tower at this location will dramatically reduce the amount of unfragmented forest at this site due to the fragmenting impacts of clearing associated with the service road and tower construction.

  The Soil Geographic Survey database for Connecticut, informed by data from the USDA Natural Resources Conservation Services (NRCS), identifies soils classified as (75C) Hollis-Chatfield-Rock Outcrop Complex (3-15%) slopes and (76F) Rock-Outcrop-Hollis Complex 45-60% slopes at the Cobble Hill Site. The Connecticut State Soil Survey page 189 states that, "erosion is a moderate to severe hazard during construction" for 75C classified soils and very severe for 76F classified soils. Furthermore, it notes that shallow depth to bedrock can lead to groundwater pollution and slope and frost action can affect new road construction. The construction of a service road to the communications infrastructure will require mitigation of these factors, yet even if steps are taken which would permit the construction of an all-weather road to the tower site, its **impacts on surface water hydrology and forest fragmentation cannot be adequately mitigated.**

**Viewshed Analysis:**

The viewshed analysis provided by the applicant is incomplete and inadequate. A 2 mile radius for this analysis is profoundly inadequate and fails to account for sightlines and topography that make the tower site clearly visible from much further away. To give but one example, the Appalachian Trail lies less than 3 miles to the west of the tower site but is not considered by the applicant. A 150' tower located at an elevation nearly 1,200' above sea level would certainly be visible from locations less than 3 miles away in Salisbury. **A viewshed analysis for this application should extent as far as the topography permits and not a seemingly arbitrary 2 miles.**

**Open Space Impacts:** There is significantly more permanently protected open space within the 2 mile radius than is shown by the applicant that needs to be considered in analysis of viewshed impacts. The Litchfield Hills Greenprint maintains the most complete record of permanently protected open space in Northwest Connecticut, and is happy to provide additional records of parcels under permanent protected through ownership or easement. These areas include parcels contiguous to those shown in the application north of the Hollebeck River in Robbin's Swamp and connecting to Housatonic State Forest south of Rte 128. Robbin's Swamp is the largest inland wetland of its kind in Connecticut and has long been the focus of conservation activity by the state and conservation non-profits.

**In Summary:**

- Development of communications infrastructure at Cobble Hill is incompatible with state policy and its designation in the Connecticut's statewide Conservation and Development Policies Plan as a "Conservation Area."
- Federal and State policies and formal designation recognize the conservation value of Cobble Hill and the surrounding area, especially as intact core forest and for its recreational, cultural and historic value.
- Connecticut's Natural Diversity Database recognizes at least 14 known locations of state listed endangered, threatened or special concern species or significant natural communities that completely surround and intersect with the Cobble Hill site and could be impacted by erosion and surface water hydrology alteration construction of a service road and communications infrastructure.
- The visual impact analysis conducted by the applicant is inadequate and fails to account for additional protected open space within an insufficient 2 mile radius.

On behalf of the Litchfield Hills Greenprint Collaborative, I respectfully urge the Siting Council not to approve the application for a new cellular tower on Cobble Hill and to find an alternative site that does not have this degree of impact and is consistent with the CT Conservation and Development Policies Plan.

Sincerely,

Tim Abbott
Greenprint Director

CC: Ellery Sinclair

The Commission reserves the right to offer additional exhibits, testimony, witnesses and administratively noticed materials as new and pertinent information and materials come to its attention.

Respectfully submitted,

Ellery W. Sinclair, Chairman
Inland Wetlands/Conservation Commission
Town of Canaan (Falls Village)
201 Under Mountain Road
Falls Village, CT 06031
(860) 824-7454
WML61@comcast.net

CERTIFICATE OF SERVICE

I hereby certify that on this day, an original and twenty copies of the foregoing was served on the Connecticut Siting Council by hand and copy of same was sent postage prepaid to:

Christopher B Fisher, Esq.
Lucia Chiocchio, Esq.
Cuddy & Feder LLP
445 Hamilton Avenue, 14th Floor
White Plains, NY 10601

Michele Briggs
AT&T
500 Enterprise Drive
Rocky Hill, CT 06067-3900

A copy was also delivered by hand to:

Patty and Guy Rovezzi
36 Barnes Road
Falls Village, CT 06031

Town of Canaan Planning & Zoning Commission
Town Hall, Main Street
Falls Village, CT 06031

Ellery W. Sinclair

Dated: February 10, 2011

**Testimony of Tim Abbott**

Docket 409 before the Connecticut Siting Council

Public Hearing, February 17, 2011

On January 19, 2011 I sent a letter to the Connecticut Siting Council describing the importance of Robbins Swamp and Cobble Hill. I submit a copy herewith and reaffirm its contents as true and accurate.

Tim Abbott, Greenprint Director
Housatonic Valley Association
150 Kent Road
Cornwall Bridge, CT 06754

**Testimony of Salvatore Dziekan**

Appearing at the request of the Inland Wetlands/Conservation Commission of the Town of Canaan, on Docket 409 before the Connecticut Siting Council

Public Hearing, February 17, 2011

Salvatore Dziekan
47 Cathole Road
Bantam, Connecticut 06750

1. I reside at 47 Cathole Road in Bantam, Connecticut, 06750.

2. I am the GIS manager of the Housatonic Valley Association with offices at 150 Kent Road, Cornwall Bridge, CT 06754. The Housatonic Valley Association was founded in 1941 and works to conserve the natural character and environmental health of our communities by protecting and restoring the lands and waters in the Housatonic River watershed.

3. I previously worked for the New York City Department of Health and Mental Hygiene serving as a GIS Analyst for the World Trade Center Health Registry. I did mapping and geospatial analysis as a part of a long-term health impact study for health effects of the events of 9/11/01.

4. I hold a masters degree in geography from Hunter College, where I was trained in GIS analysis and mapping. "GIS" stands for "geographic information systems" which includes mapping and spatial analysis software.

5. Mapping, geospatial analysis and geospatial data management is my full-time professional occupation.

6. The GIS principles of mapping and analysis are the same in a rural and urban setting. Both relate to the location of features on the ground and the relation of these features to one another.

7. I was asked by the Inland Wetlands/Conservation Commission of the Town of Canaan for consultation on review of the "Comparative Visual Resource Evaluation Report" at Tab 6 of the application of Cingular for a proposed Telecommunications Facility at 8 Barnes Road in Falls Village, Connecticut as well as other materials in the application. I appear as consultant to and at the request of the Inland Wetlands/Conservation Commission of the Town of Canaan, a party in these proceedings.

8. The "Comparative Visual Resource Evaluation Report" was prepared by VHB/Vanasse Hangen Brustlin, Inc., 54 Tuttle Place, Middletown, CT, 06457.

9. In my review of this document, I found material discrepancies or omissions as follows:

**A)** Discrepancy of source of aerial imagery digitized in the creation of forest areas by VHB and utilized for viewshed analysis. The Methodology Section of "Comparative Visual Resource Evaluation Report" references 2006 aerial imagery with 1 foot resolution whereas the map titled "Comparative Viewshed Analysis 130 Feet and 150 Feet Proposed AT&T Facility Telecommunications Facility 8 Barnes Road, Falls Village, Connecticut" refers to a Data Source being 2008 aerial imagery with 1 meter resolution.

**B)** The exclusion of all VHB-defined forest areas as potential areas of visibility of the proposed tower drastically undercounts the total acreage from the VHB-defined study area from which the Proposed Tower will be visible. Furthermore, the forest areas that VHB created are not provided in the map or elsewhere in the Application.

**C)** The Report makes an assumption that all of the forests in the vicinity of the project area are 65 feet tall, minimizing views and over-excluding those locations from which the tower could be viewed.

**D)** The definition of the Study Area is insufficient at a 2-mile radius from the proposed tower. Analysis performed by HVA indicates that the proposed tower will be visible clearly beyond the 2-mile Study Area presented by VHB.

10. The six page narrative in attachment 6 explains the methodology engaged in by VHB/Vanasse Hangen Brustlin, Inc. for viewshed analysis to determine points from which the proposed telecommunications tower would be visible.

11. In order for the applicant to establish whether or not a view of the proposed tower is obstructed or not, the VHB narrative describes GIS analysis based (at page 2 of the VHB Report) on 2006 aerial imagery with a 1 foot resolution; but is based (on the map attached to the VHB Report) on 2008 aerial imagery with a 1 meter resolution. These two differing datasets raise questions about other potential errors or oversights in the GIS analysis.

12. The methodology adopted by VHB over-excludes areas from which the proposed tower can be viewed. The report indicates the extraction of all forested areas based on "the assumption that a person standing among the trees will not be able to view the Facility beyond a distance of approximately 500 feet." (pp.2-3) Despite also admitting "that some locations within this range will provide visibility of at least portions of the Facility based on where one is standing" (p. 3), all of the forested areas are excluded from the areas of visibility.

**13.** An examination of land classification data from 2002 obtained from the University of Connecticut Center for Land Use Education and Research (CLEAR) reveals that 73% or approximately 5831 acres of VHB's Study Area is forested and potentially excluded from the viewshed. When these 5831 acres are excluded from viewshed analysis, VHB's reported 513 acres of visibility of the tower jump from 6% of the Study Area to 23% of the total potential viewshed.

14. The forested areas GIS data layer that VHB created was not included in the Application. As a GIS analyst, I would recommend that the Siting Council and all parties have a copy of the digitized forest layer in order to use it to perform viewshed analysis. Access to this digitized data will be used to assist with determinations on quantifying effect and impact, and not to facilitate "assumptions." This is evidence material to the Council's determination of views of the tower, and its omission is material to this application.

15. The Report makes an assumption that all of the forests in the vicinity of the project area are 65 feet tall based on in field measurements. By this assumption under a viewshed analysis, the forest map created by applicant materially affects their analysis by minimizing views and over-excluding those locations from which the tower could be viewed.

16. The applicant defines its study area as a 2 mile radius, but the tower would be visible beyond that. The report gives no rationale for setting a two mile radius standard. Yet according to the maps I have generated, the view extends much further. This would seem material to a viewshed analysis.

17. In my review of Attachment 4 discussing water runoff, I found the following omission:

**A)** Attachment 4: The proposed site lies in the Hollenbeck River basin and water runoff would flow to the west of the proposed site, and not down the proposed access road.

18. My analysis indicates that water runoff from the proposed tower site would be off the west ledge of Cobble Hill and this fact is not addressed in the application.

19. Based on the digital elevation model (DEM) cited by the applicant at page 2, which was produced CLEAR, I calculated the slope using ESRI's ArcGIS Spatial Analysis Tools. The tools I used are the Slope tool that calculates the slope; an Aspect tool that calculates the angle of the slope. Since I am using the same data that VHB used, the data cannot be manipulated. Only the interpretation of the data can be different. My interpretations of the data provided at Attachment 6 page 2 of the Application and using my GIS training are that:

20. The angle of the slope of the (Cobble) hill determines the direction of run-off.

21. The applicant addresses (at Attachment 5 of the Application) water running off down the proposed new access road.

22. Direction and speed of water runoff is therefore a result of: elevation, slope and aspect.

23. With the location of the proposed facility as described in Attachment 3 in the "Site Evaluation Report" of the application, my calculations show run-off running west, into the Hollenbeck River. (I attach a diagram marked **"Exhibit SD3"** using ESRI's ArcGIS Spatial Analysis Tool that supports this conclusion.)

24. Since water follows the path of least resistance, the path that water would run down would be to the west, down the slope from the ledge indicated on **Exhibit SD3**.

25. At the request of the Town of Canaan Conservation and Inland Wetlands Commission and to support my testimony, I produced the following maps using ESRI's ArcGIS® 10.0 with the ArcInfo license at the Housatonic Valley Association offices:

a) a viewshed map ["**Exhibit SD1**"] (attached hereto)

b) a slope map ["**Exhibit SD2**"] (attached hereto)

c) a watershed map ["**Exhibit SD3**"] (attached hereto)

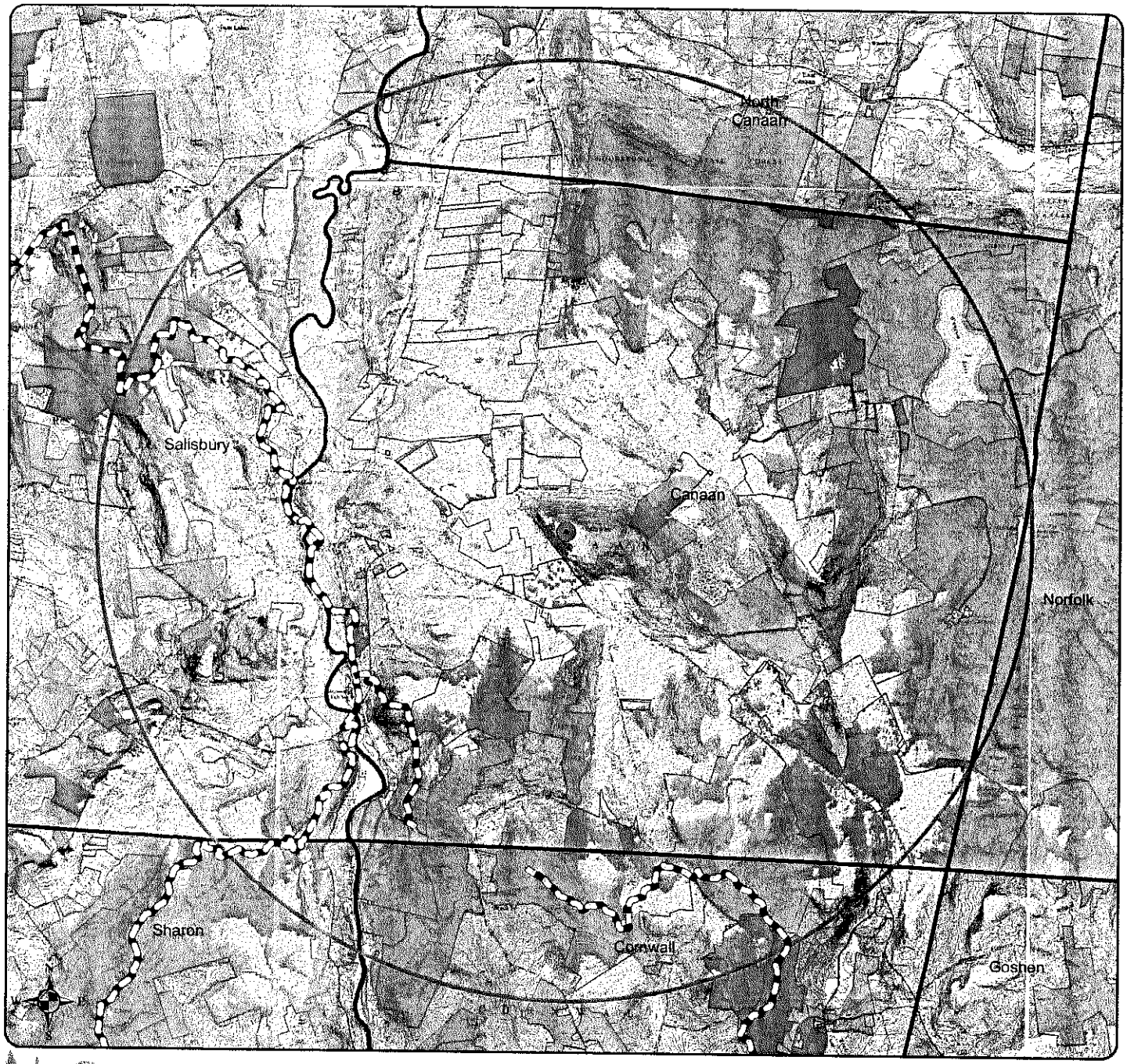
26. I have also provided the Town of Canaan Conservation and Inland Wetlands Commission with a large scale demonstrative exhibit of each of these maps.

27. All three maps are centered on the proposed tower site and show areas relevant for each map.

Signed,

Salvatore J. Dziekan

Salvatore Dziekan
GIS Manager
Housatonic Valley Association




# SD1 - VIEWSHED ANALYSIS
## Proposed AT&T Wireless Telecommunications Facility
## 8 Barnes Road
## Falls Village, CT
## Prepared on behalf of Falls Village Inland Wetlands Commission

NOTE:
- Viewshed analysis is conducted using ESRI's Spatial Analyst
- Proposed facility height is assumed to be 150 feet AGL
- Tree canopy is assumed to be 65 feet
- Study Area is comprised of a four-mile radius surrounding the proposed facility

DATA SOURCES:
- Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data (collected 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR)
- Forest land cover is derived from CLEAR land classification data with 100 foot resolution (2002)
- Base map comprised of South Canaan (1969) USGS Quadrangle Maps
- Municipal and Private Open Space data layer provided by CT DEP (1997)
- Permanently protected open space data layer provided by the Litchfield Hills Greenprint Collarborative (2010)

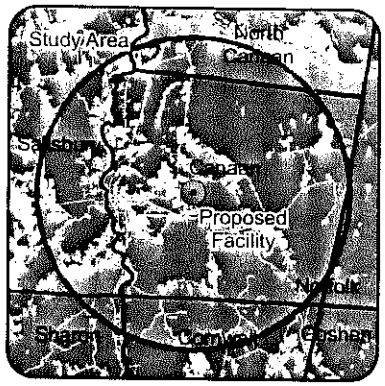
Map compiled February 2011

## Legend

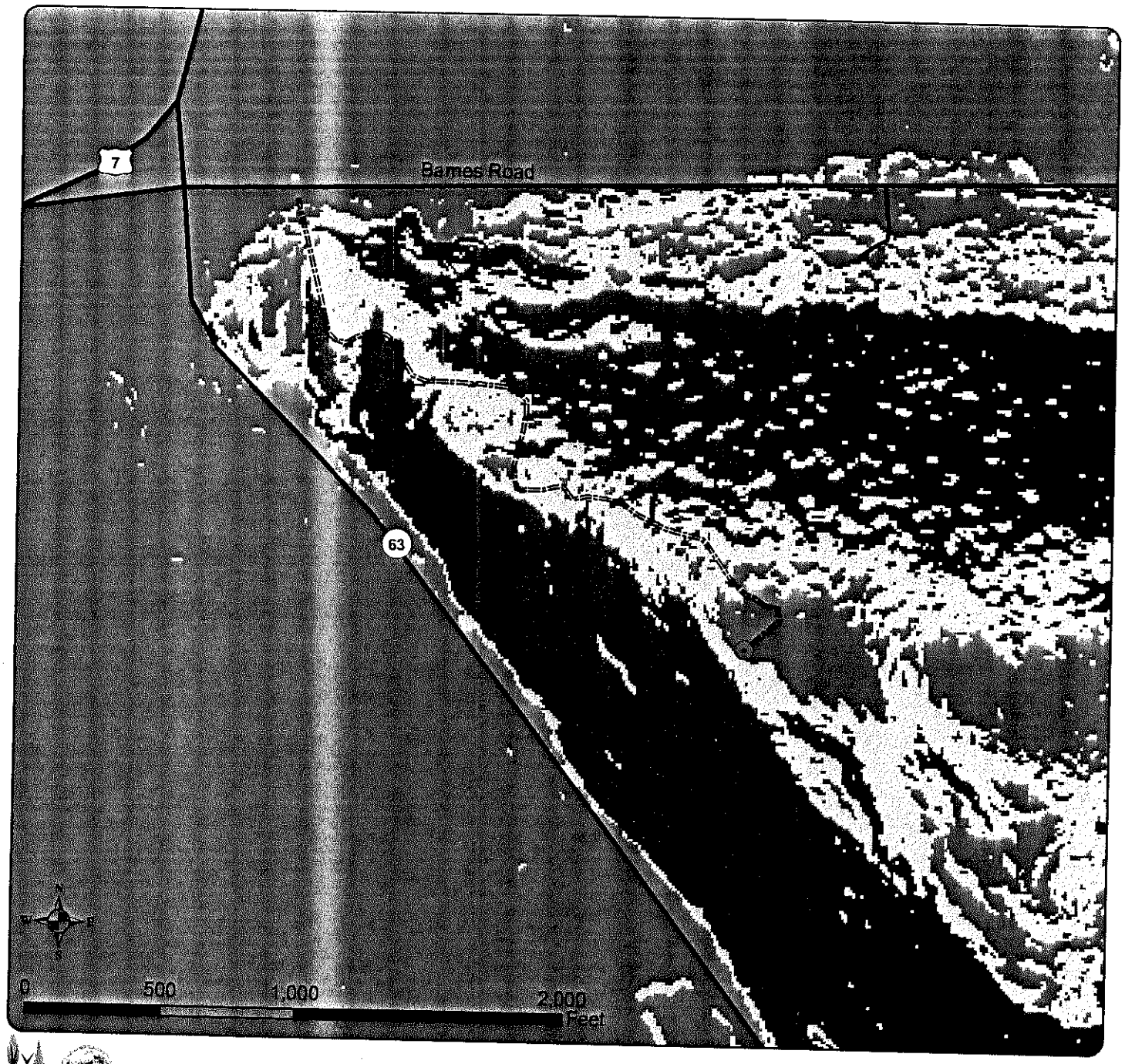
- Proposed Tower
- Year-Round Visibility at 150' AGL
- Municipal and Private Open Space
- Permanently Protected Land
- Appalachian Trail
- Mohawk Trail

HVA

0 1 2 4 Miles




Inset Map of Study Area Showing CLEAR Forested Areas




HVA

SD2 - SLOPE ANALYSIS
Proposed AT&T
Wireless Telecommunications Facility
8 Barnes Road
Falls Village, CT
Prepared on behalf
Inland Wetlands/Conservation Commission
of the Town of Canaan

NOTE:
- Slope analysis conducted using ESRI's Spatial Analyst

DATA SOURCES:
- Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data (collected 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR)
- Roads are US Census Bureau TIGER files (2000)
- Proposed access road digitized based on survey included in AT&T appliction

Map compiled February 2011

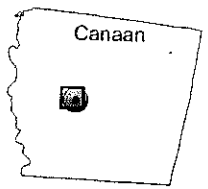
## Legend

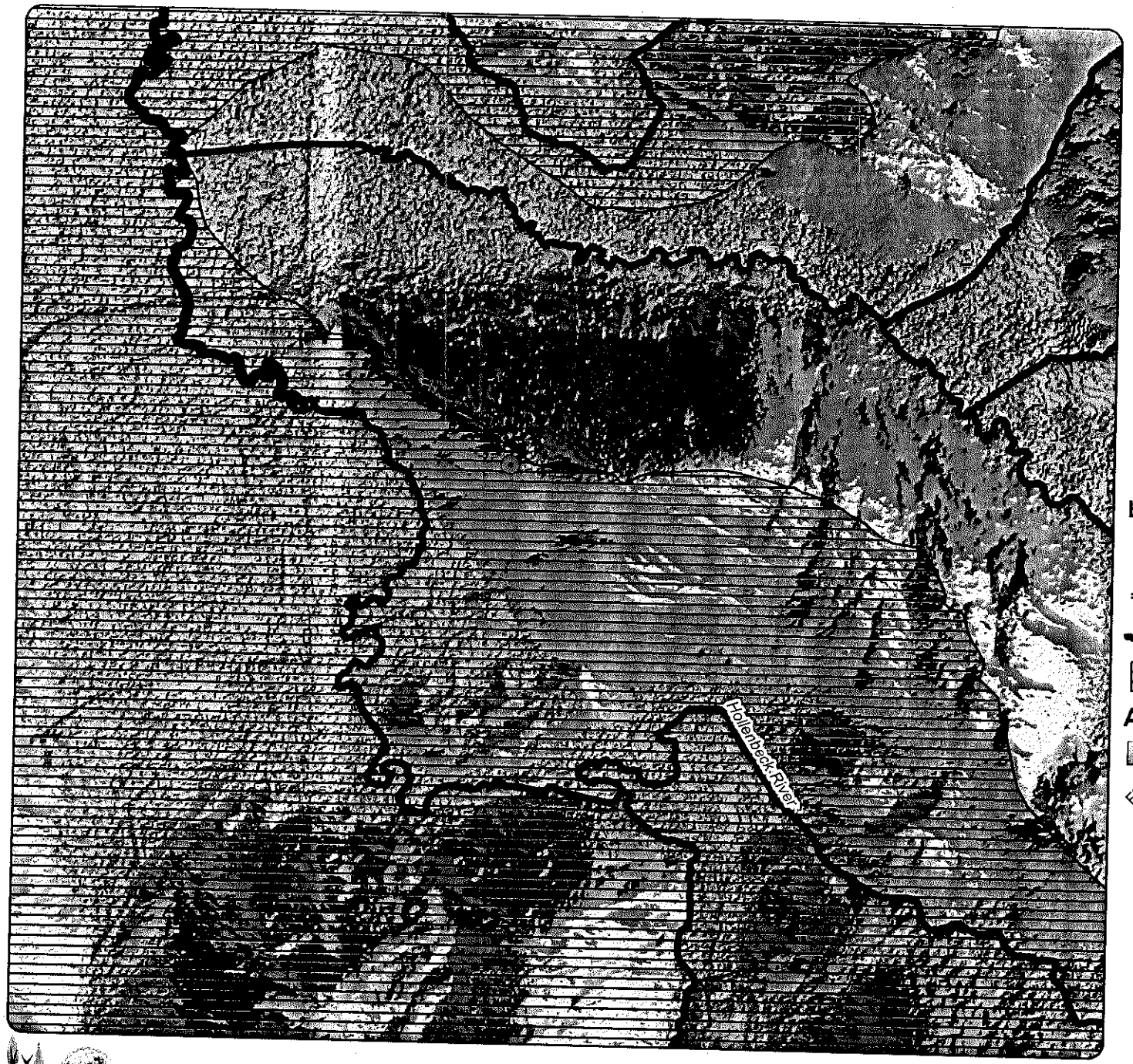
- ProposedTower
- Proposed Access Road
- Roads

**Slope in Degrees**

- 0 - 9.999999999
- 10 - 19.99999999
- 20 -90

Inset Map
Town of Canaan






SD3 - WATERSHED ANALYSIS
Wireless Telecommunications Facility
8 Barnes Road
Falls Village, CT
Prepared on behalf of Falls Village
Inland Wetlands Commission

NOTE:
- Aspect analysis conducted using ESRI's Spatial Analyst

DATA SOURCES:
- Aspect calculations utilize digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data (collected 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR)
- Watershed and streams data obtained from CT DEP (2005)
- Proposed access road digitized based on survey included in AT&T application

Map compiled February 2011

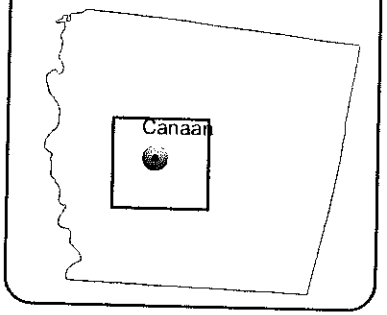
## Legend

- ProposedTower
- Proposed Access Road
- Streams and Rivers
- Hollenbeck River Watershed

## Aspect-Direction of Slope

Flat, North, Northeast, East, Southeast, South, Southwest, West, Northwest, North

Inset Map
Town of Canaan




HVA

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