STATE OF NEW HAMPSHIRE SITE EVALUATION COMMITTEE

RE: Application of Antrim Wind, LLC for Certificate)
of site and facility to construct up to 30 MW of wind electric)
generation in Antrim, New Hampshire and operate the same.)

SUPPLEMENTARY PRE-FILED TESTIMONY OF RICHARD BLOCK

Q: Please state your name and address.

A: Richard Block, 63 Loveren Mill Road, Antrim, New Hampshire 03440.

Q: What is the purpose of this supplemental testimony?

A: To provide a simulation of the proposed wind turbine project as viewed from the north since the visual impact will be greatest from the north on public lands, current use recreational land, as well as numerous private residences. Neither of the previously submitted visual impact studies provided simulated views from this area. Furthermore, I want to demonstrate the high inaccuracy of the Vegetated Viewshed Map submitted by Saratoga Associates as part of Antrim Wind's Visual Impact Assessment. During the summer and through foliage season, from the south crest of Windsor Mountain, where my photograph was taken, eight to ten turbines would be visible with all turbines being easily seen during the winter months. This area, popularly known as "The Blueberry Field," has been used for generations as recreational land by Antrim residents. The Vegetated Viewshed Map indicates that in this area, no turbines would be visible. This fact casts serious doubt on the believability of the entire Viewshed Map which likewise claims that even on the

Tuttle Hill/Willard Mountain ridge in the vicinity of the project, one would not be able to see the nearly 500-foot turbines looming directly overhead.

Q: Who prepared this visual simulation?

A: I did.

Q: What are your qualifications to do this?

A: As I stated in my testimony of July 31, 2012, I have a degree in two- and three-dimensional design as well as technical theater including modeling and visualization of scenic and architectural designs. I also have a Master of Fine Arts from Bard College with a specialization in Intermedia and computer graphics. For over thirty years I have taught design, technical theater, and graphic communications on the college level and am Professor of Graphic Communications and Information Technology at Franklin Pierce University in Rindge, New Hampshire where I teach courses involving digital photography and computer image manipulation using programs like Photoshop. In the past I have also worked as an art director and creative director in the advertising industry and as a cartographer for the State of Massachusetts.

Q: What was your methodology for creating a simulation?

A: On October 8, 2012, I walked up Loveren Mill Road to the Blueberry Field and took a series of photographs facing south towards the Tuttle Hill ridgeline. I recorded the GPS coordinates of the camera location and made notes about the exposure settings. Later, using a combination of Google Earth, Adobe Illustrator,

Adobe Photoshop, and Adobe InDesign, I worked with a plot of the proposed locations of the ten wind turbines and two meteorological towers as well as the location of the present temporary met tower as a reference point to generate both ground plans for the angular sightlines of the turbine sites and cross-sectional elevations to determine relative height of the turbines and whether any part would be obscured by the terrain. The result, attached as Exhibit RB1, is an accurate representation of the visibility of the wind facility from that location.

Q: Do you consider this a satisfactory rendition of how the wind turbines will appear?

A: I don't believe that any flat, two-dimensional representation of structures as massive and anomalous as industrial wind turbines can ever come close to conveying the impact of their presence in the landscape. In general, when viewed at an equal elevation (as in this rendition) or from above, very tall structures never appear as imposing as they do when viewed from below, which would be the case in a majority of viewpoints in the area. For that reason, this viewpoint actually minimizes their size.

Photographs are only small pieces of paper with various colors and shapes on them, and it matters little whether those colors and shapes represent wind turbines or insects. In the real world, when structures as large as 400 to 500 foot industrial wind turbines are placed into our natural environment and then set spinning, the visual impact is jolting. There is nothing in our common experience which prepares us for intrusions into nature that are so massively large. No matter how often I drive past the turbines in Lempster, I will never become accustomed to how out of place they look, and often wonder how anyone can not get distracted by their movement.

Q: Does this conclude your supplemental testimony?

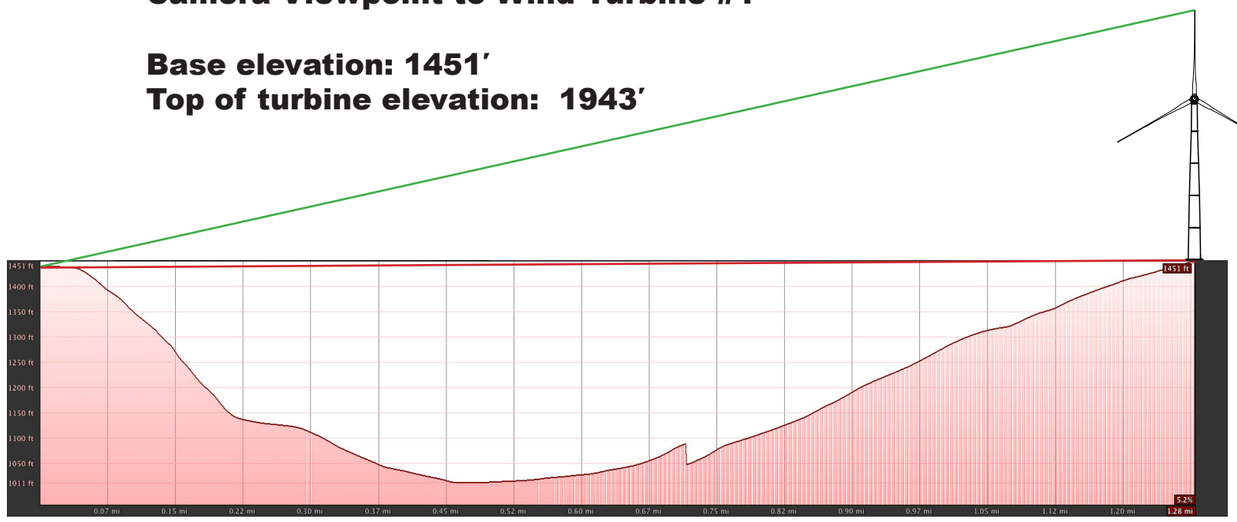
A: Yes, it does.

View of proposed turbines from south crest of Windsor Mountain, commonly known as “The Blueberry Field”

Photosimulation by Richard Block, Snow Star Design, Antrim, New Hampshire. Base photo taken 10/8/2012, 4:14pm, using a Nikon D3100, 1/200 sec at f/5.6, digital focal length 34.0mm (51mm equivalent). Camera location: 43° 5′ 4.36″ N, 72° 1′ 0.40″ W, 1442′ elevation. View image at 17″x11″.

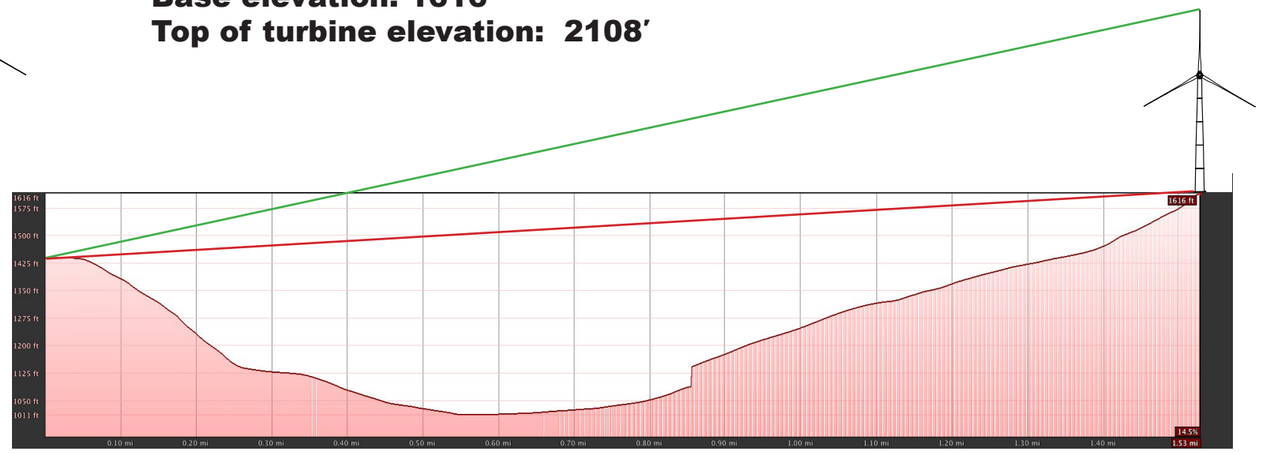
ELEVATION VIEW:
Camera Viewpoint to Wind Turbine #1

Base elevation: 1451′
Top of turbine elevation: 1943′



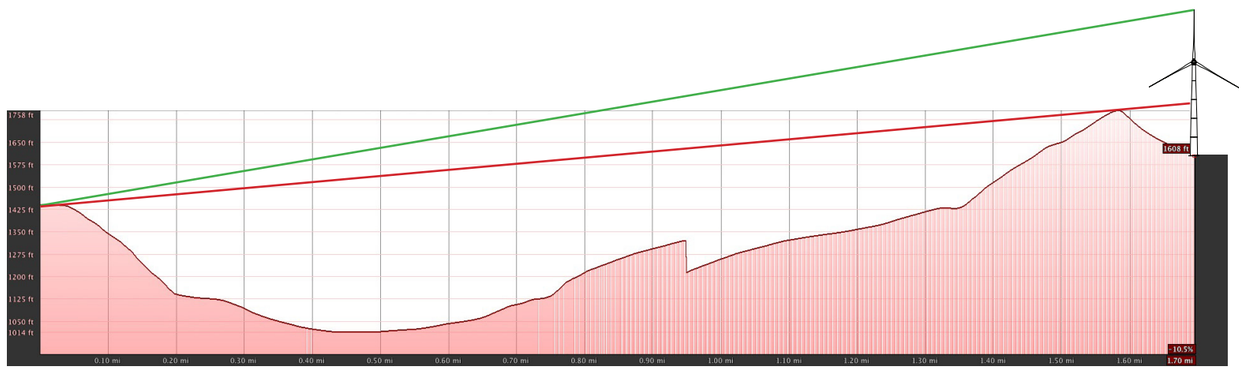
ELEVATION VIEW:
Camera Viewpoint to Wind Turbine #2

Base elevation: 1616′
Top of turbine elevation: 2108′



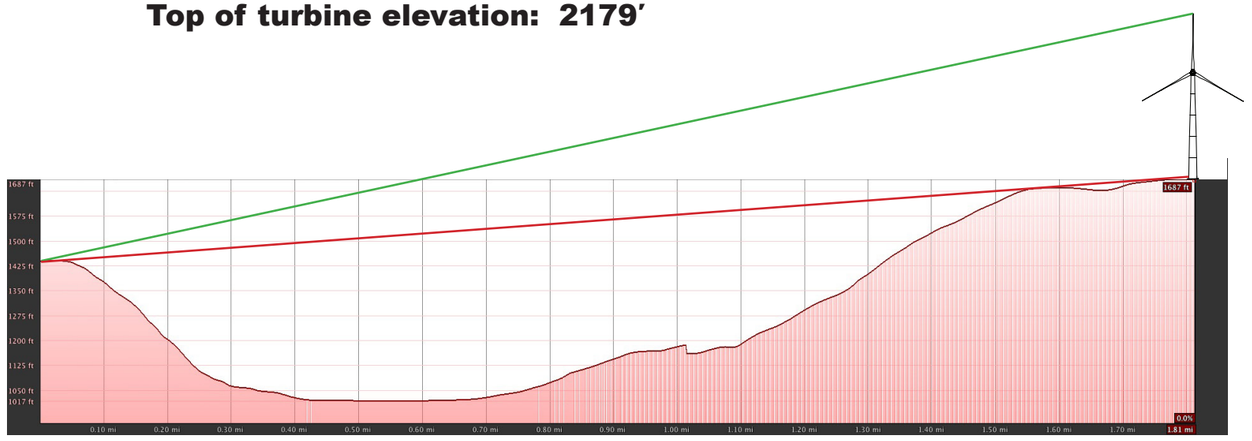
ELEVATION VIEW:
Camera Viewpoint to Wind Turbine #3

Base elevation: 1608′
Top of turbine elevation: 2100′



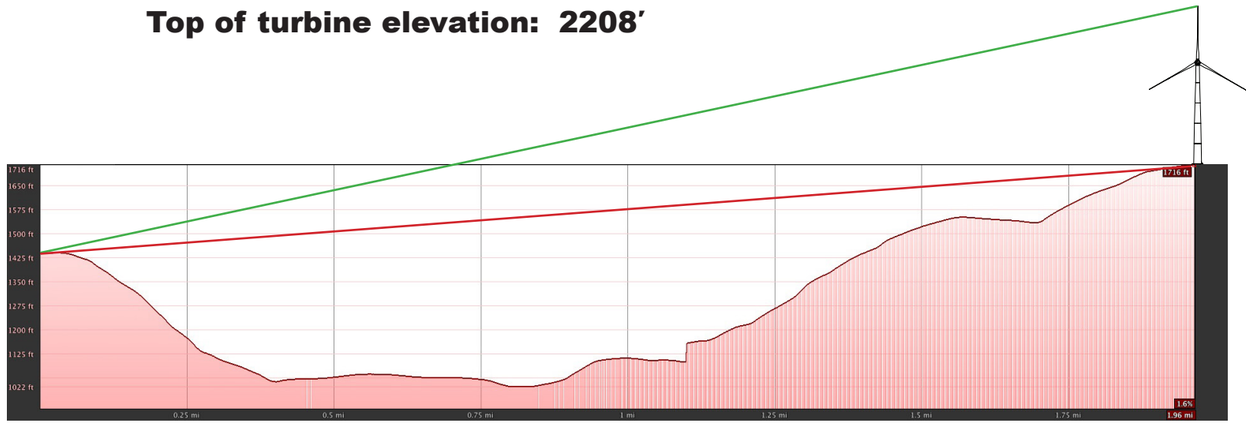
ELEVATION VIEW:
Camera Viewpoint to Wind Turbine #4

Base elevation: 1687′
Top of turbine elevation: 2179′



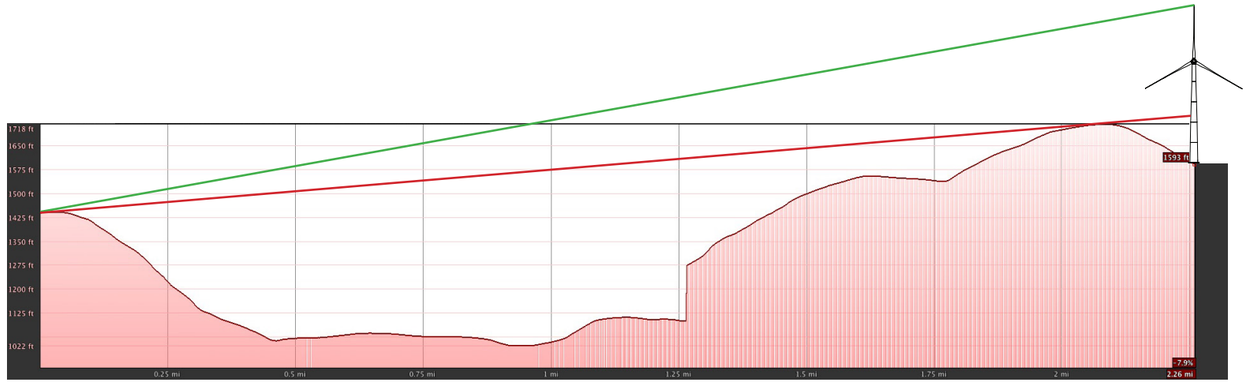
ELEVATION VIEW:
Camera Viewpoint to Wind Turbine #5

Base elevation: 1716′
Top of turbine elevation: 2208′



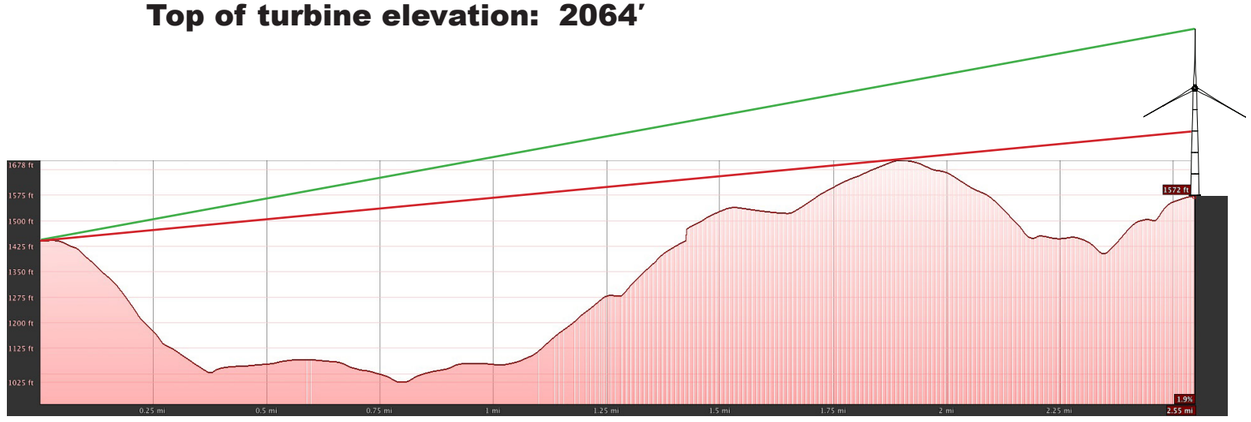
ELEVATION VIEW:
Camera Viewpoint to Wind Turbine #6

Base elevation: 1593′
Top of turbine elevation: 2085′



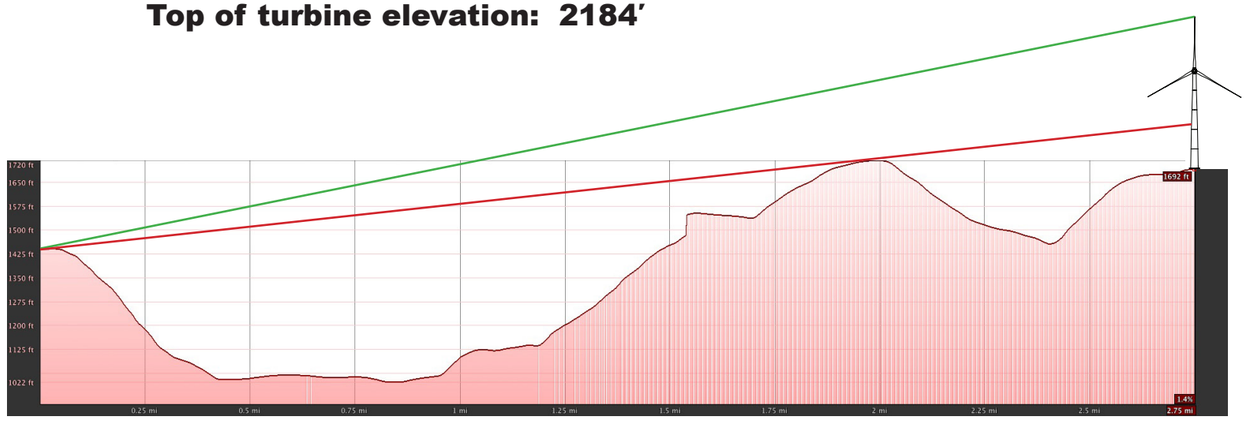
ELEVATION VIEW:
Camera Viewpoint to Wind Turbine #7

Base elevation: 1572′
Top of turbine elevation: 2064′



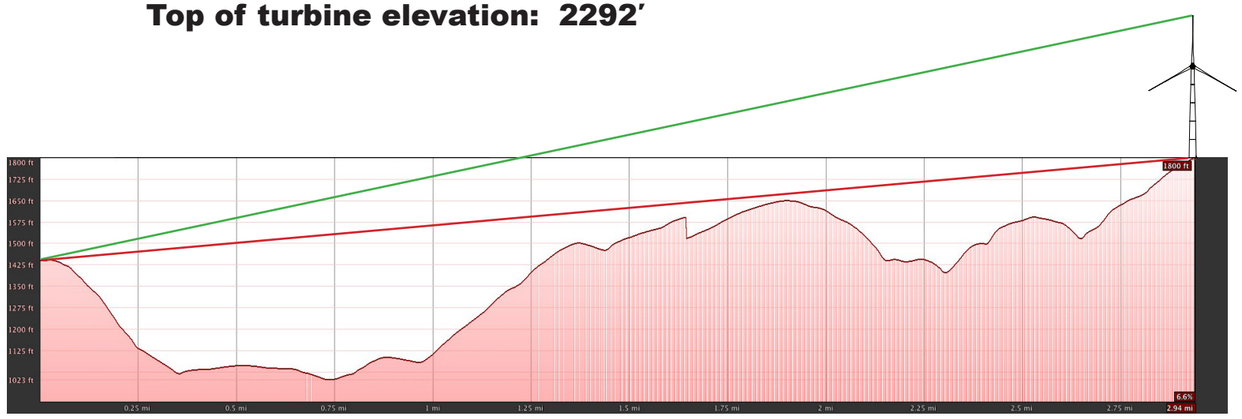
ELEVATION VIEW:
Camera Viewpoint to Wind Turbine #8

Base elevation: 1692′
Top of turbine elevation: 2184′



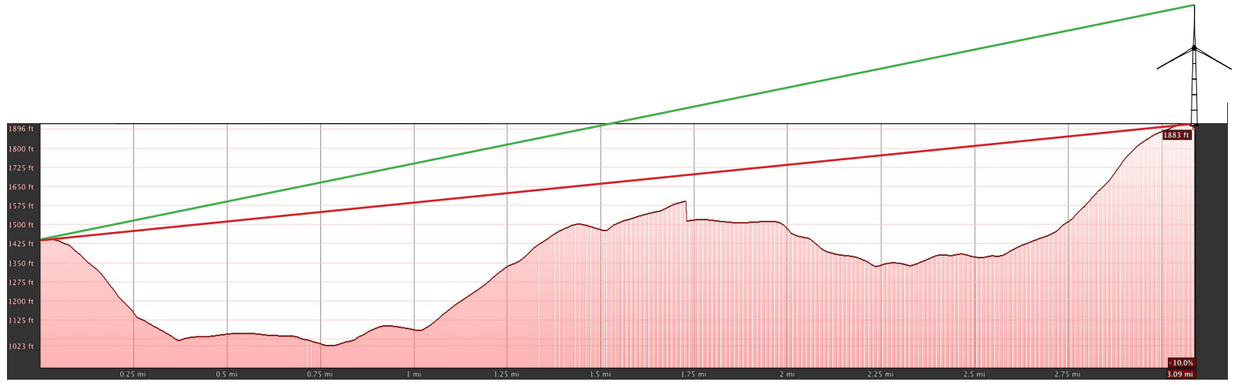
ELEVATION VIEW:
Camera Viewpoint to Wind Turbine #9

Base elevation: 1800′
Top of turbine elevation: 2292′



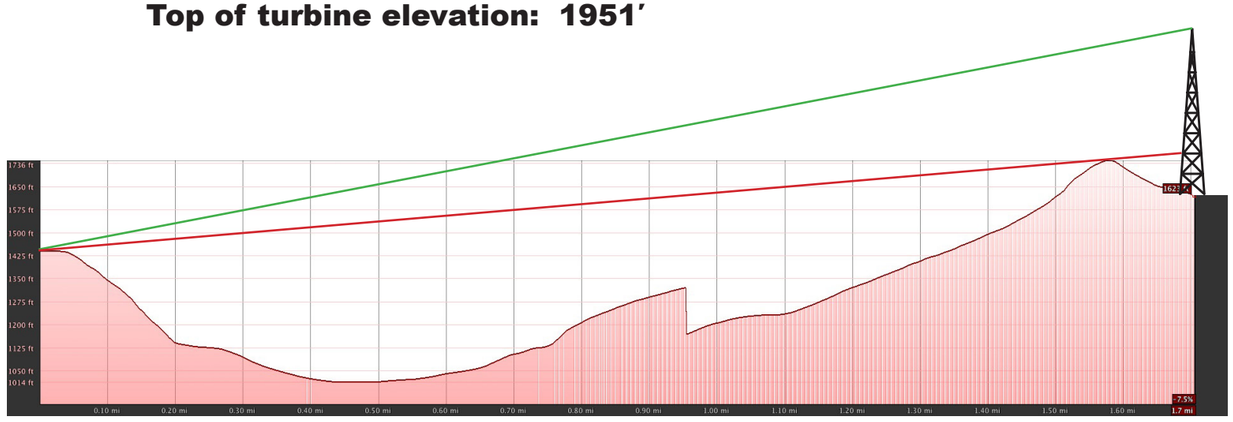
ELEVATION VIEW:
Camera Viewpoint to Wind Turbine #10

Base elevation: 1883′
Top of turbine elevation: 2375′



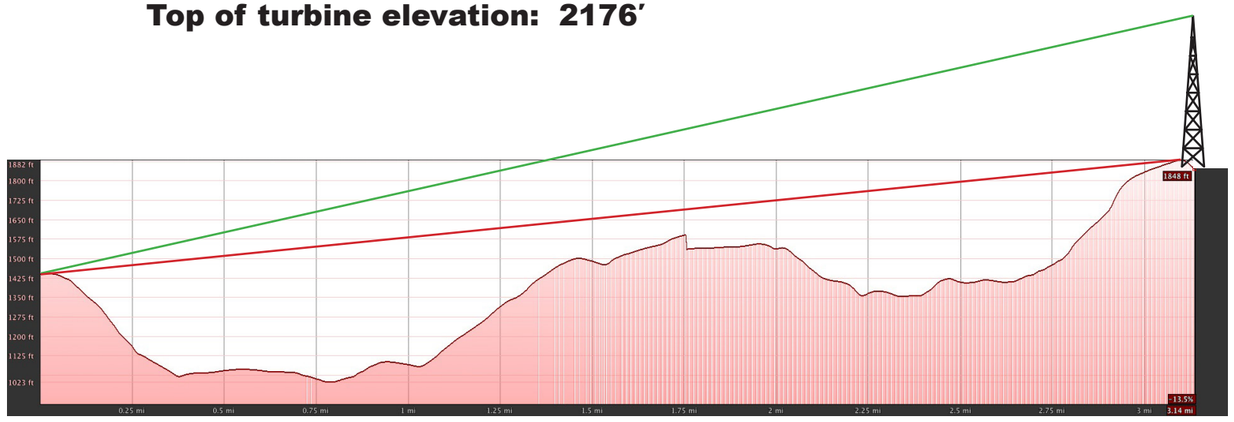
ELEVATION VIEW:
Camera Viewpoint to Met Tower #1

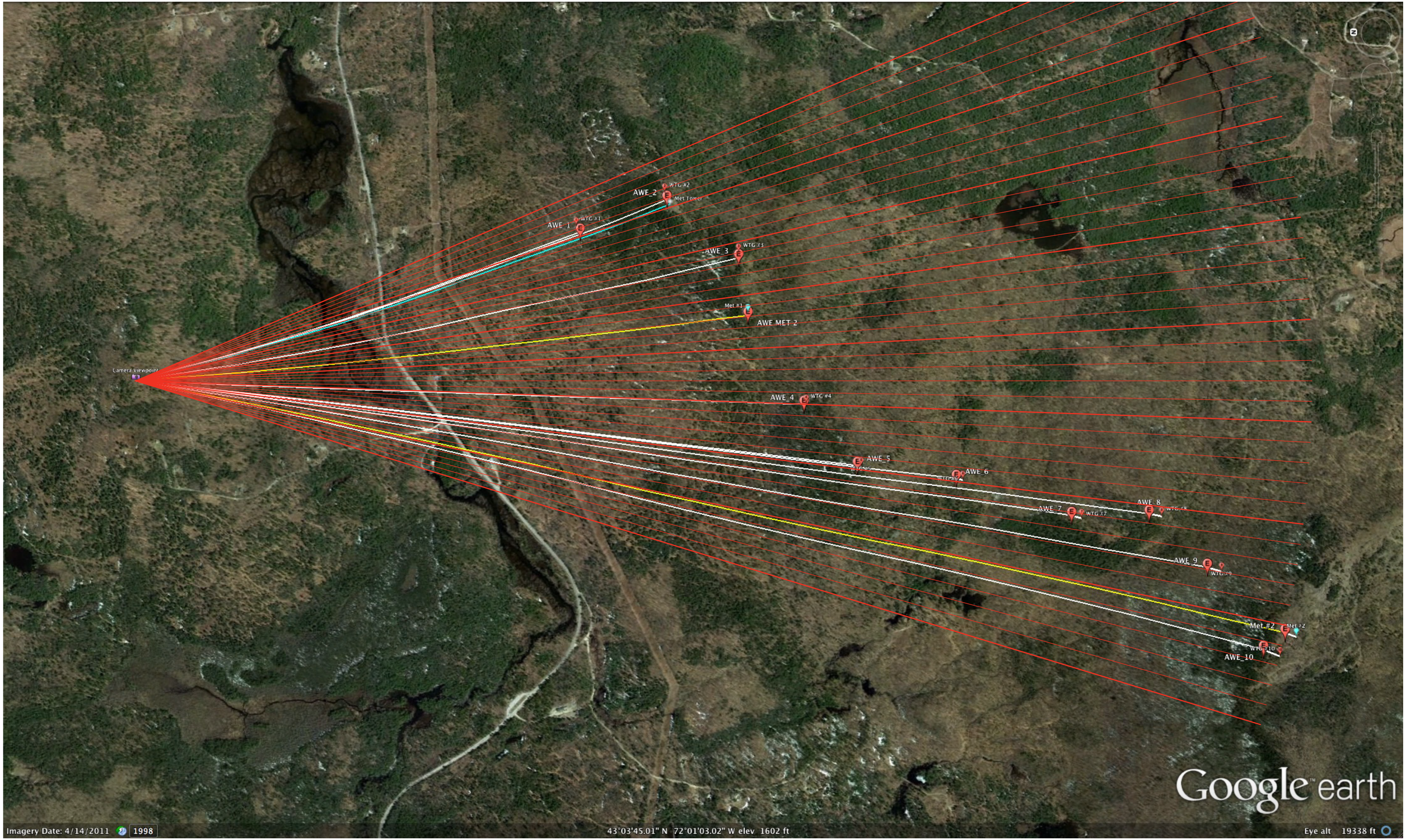
Base elevation: 1723′
Top of turbine elevation: 1951′

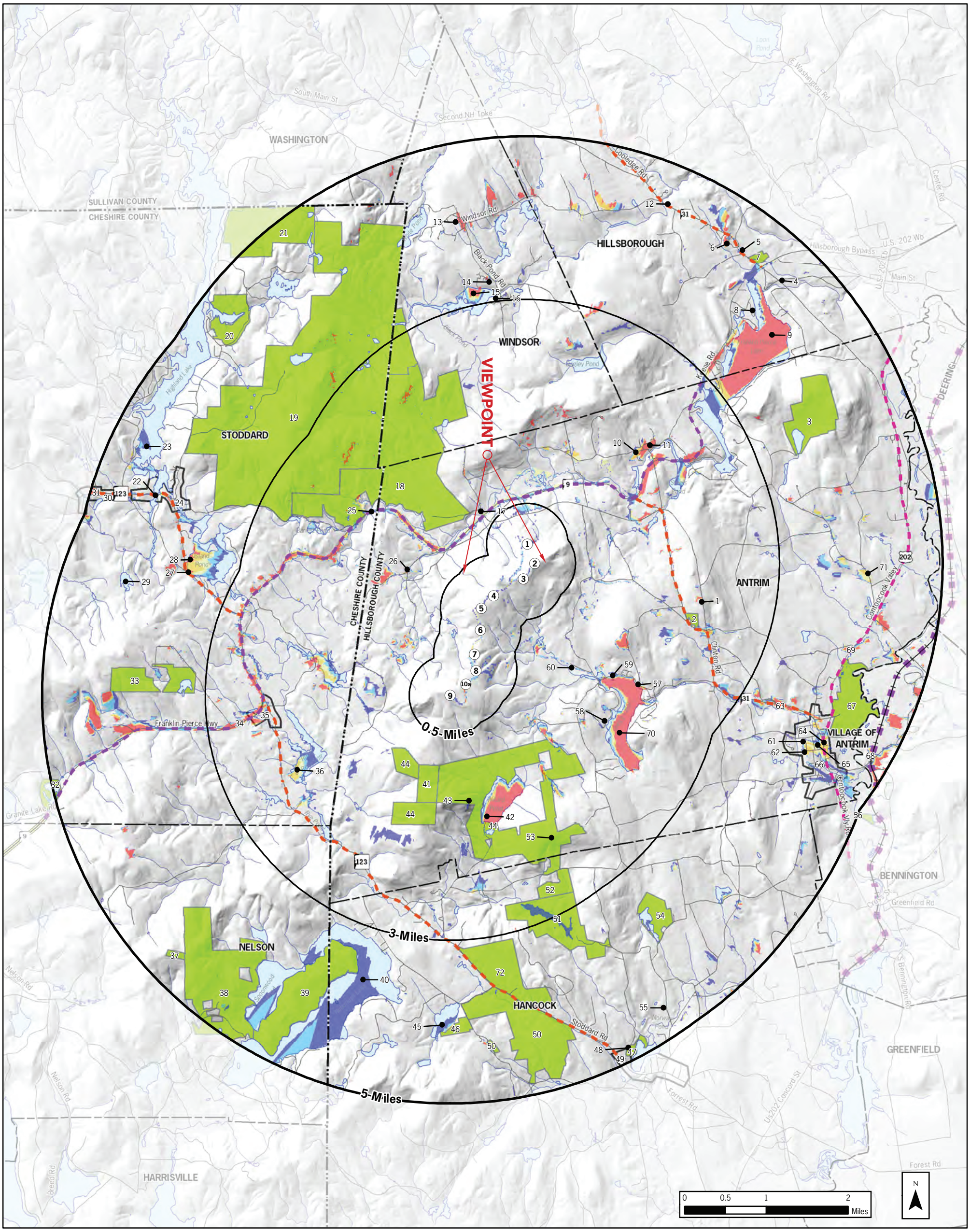


ELEVATION VIEW:
Camera Viewpoint to Met Tower #2

Base elevation: 1848′
Top of turbine elevation: 2176′




AWE_2
WTG #2
Met Tower
AWE_1
WTG #1
AWE_3
WTG #3
Met #1
AWE MET 2
Camera Viewpoint
AWE_4
WTG #4
AWE_5
AWE_6
AWE_7
AWE_8
AWE_9
Met #2
AWE_10
Google earth
Imagery Date: 4/14/2011
1998
43°03'45.01" N 72°01'03.02" W elev 1602 ft
Eye alt 19338 ft



Antrim Wind Energy Project

Figure 2 - Vegetated Viewshed Map*

* Assumes uniform forest height of 40' (12.192 m) in forested areas.

Turbine locations reflect September 8, 2011 data

January 2012

KEY

③ Proposed Wind Turbine

Road Class

- Local Road
- Highway
- Divided Highway
- Federal Highway
- State Highway
- Scenic Highway
- Rail-Trail

- Community Center Area
- Recreational Area
- Town Boundary
- County Boundary

Number of Turbines Visible

- 1 - 2
- 3 - 4
- 5 - 6
- 7 - 8
- 9 - 10

File Location: B:\2011\11039\Maps\Viewsheds111111\VegetatedViewshed.mxd

SARATOGA ASSOCIATES

Landscape Architects, Architects, Engineers, and Planners, P.C.

New York City > Saratoga Springs > Syracuse

ANTRIM WIND ENERGY LLC