

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:

APPLICATION OF NEW CINGULAR WIRELESS PCS,
LLC (AT&T) FOR A CERTIFICATE OF
ENVIRONMENTAL COMPATIBILITY AND PUBLIC
NEED FOR THE CONSTRUCTION, MAINTENANCE
AND OPERATION OF A TELECOMMUNICATIONS
TOWER FACILITY LOCATED AT THE FIRSTLIGHT
HYDRO GENERATING COMPANY PROPERTY AT
KENT ROAD IN THE TOWN OF NEW MILFORD,
CONNECTICUT

DOCKET NO. 444

March 7, 2014

NEW CINGULAR WIRELESS, PCS LLC (AT&T) RESPONSES TO CONNECTICUT
SITING COUNCIL PRE-HEARING QUESTIONS SET I

- Q1. Of the letters sent to abutting property owners, how many certified mail receipts were received? If any receipts were not returned, which owners did not receive their notice? Were any additional attempts made to contact those property owners?
- A1. *Two notices were sent to CL&P at two different addresses, which were listed by the New Milford Tax Assessor. While one notice was returned because there was no delivery point associated with that one address, the return receipt card for CL&P for the second notice was received.*
- Q2. Pursuant to CGS §16-50o, please submit a copy of the lease for the proposed site.
- A2. *The lease between AT&T and the FirstLight Hydro Generating Company for the proposed facility is submitted under separate cover along with a motion for protective order.*
- Q3. What is the address of the nearest residence outside of the host property?
- A3. *The nearest residence outside of the host property is located at 67 Grove Road, Gaylordsville, CT 06755. This residence is located approximately 800 feet from the proposed facility to the southeast.*
- Q4. Quantify the amounts of cut and fill that would be required to develop the proposed facility.
- A4. *The estimated amounts of cut and fill to develop the proposed facility include:
Access Drive: Cut = 28 CY; Fill = 104.65 CY; Net = 76.65 CY Fill
Compound Area: Cut = 376.56 CY; Fill = 82.69 CY; Net = 217.22 CY Cut
Total: Cut = 404.56 CY; Fill = 187.34 CY; Net = 217.22 CY Cut*

- Q5. Would any blasting be required to develop the site?
- A5. *Blasting is not anticipated for construction of the site. If ledge is encountered, removal by mechanical means is first attempted. If mechanical removal methods are unsuccessful, blasting will be considered as required to remove the ledge.*
- Q6. Is the proposed site located within a 500-year flood zone?
- A6. *No. The site is located outside of the 500-year flood zone boundary associated with Cedar Hill Pond as shown in the Flood Zone Map included in Attachment 1.*
- Q7. What is the tower design wind speed for this area (Litchfield County)?
- A7. *The tower design wind speed for this area includes both the TIA/EIA-222-F-1996 and TIA-222-G standards:*
TIA/EIA-222-F-1996:
LC #1: 80mph (fastest mile)
LC #2: 69mph w/ 1/2" radial ice
TIA-222-G:
LC #3: 95mph (3-second gust)
LC #4: 40mph w/ 1" radial ice
- Q8. What type of antenna mount will be used for the proposed antennas?
- A8. *The proposed antenna mount is a four-sided low-profile platform mount.*
- Q9. Would the tower be designed to be expandable in height? If yes, indicate the how much taller the tower could be expanded in height.
- A9. *Not specifically. An expandable tower could be designed and constructed as a condition of any certificate.*
- Q10. Would AT&T's antennas comply with federal E911 requirements?
- A10. *Yes.*
- Q11. Identify distances and directions to the adjacent sites with which the proposed facility would hand off signals. Include addresses, structure types (e.g. monopole), structure heights, and AT&T's antenna heights at these sites.

A11. *Information regarding the adjacent hand off sites is included in the table below.*

Site ID	Longitude	Latitude	Address	Town	State	Structure Type	AT&T Antenna Centerline (ft)	Overall Height (ft)	Distance (mi)	Direction
CTV1008	-73.486638	41.681631	136 BULLS BRIDGE ROAD	SOUTH KENT	CT	MONOPOLE	180	180	1.48	9.67
CTV2001	-73.437474	41.599403	33 BOARDMAN ROAD	NEW MILFORD	CT	STEALTH STRUCTURE	120	150	3.66	145
CTV5502	-73.503799	41.612492	2 TABER ROAD	SHERMAN	CT	SILO	70	74	2.48	213

Q12. Which frequencies are AT&T licensed to utilize in Litchfield County?

A12. *AT&T's licensed frequencies for Litchfield County include:*

Cellular

KNKN589 B-Band

PCS

WPSL626 A3 Block

700 MHz

WPWV376 Lower C

WQIZ617 Lower E

WQJU671 Lower B

Q13. Are all frequencies used to transmit voice and data?

A13. *Yes, all frequencies will eventually be used to transmit voice and data. Please see response 15 below for more details.*

Q14. What is the lowest height at which AT&T's antennas could achieve its coverage objectives at the proposed site? Submit propagation maps showing the coverage at ten and twenty feet below these heights.

A14. *AT&T's coverage objectives are met at an antenna centerline mounting height of 146' AGL. The requested plots are included in Attachment 2.*

Q15. What is the signal strength for which AT&T designs its system? For in-vehicle coverage? For in-building coverage?

A15. *Currently, AT&T provides digital voice and data services using 3rd Generation (3G) UMTS technology in the 800 MHz and 1900 MHz frequency band. To address the demands for reliable faster wireless services, AT&T is also deploying advanced 4th Generation (4G) services over LTE technology in the 700 MHz and 1900 MHz frequency bands as allocated by the FCC.*

For AT&T's network expansion and ongoing technology advancements in Connecticut and elsewhere in the country, the 4G LTE network is the current and future design. These data networks are used by mobile devices for fast web browsing, media streaming, and other applications that require broadband connections. The mobile devices that benefit from these advanced data networks are not limited to basic handheld phones, but

also include devices such as smartphones, PDA's, tablets, and laptop air-cards. With the evolving rollout of 4G LTE services and devices, AT&T customers will have even faster connections to people, information, and entertainment.

AT&T's migration from 3G to 4G services in an LTE environment requires changes in the network architecture analysis and operating thresholds required by the LTE network. In the past, AT&T has presented signal thresholds of -74 dBm for their in-building coverage threshold and -82 dBm for their in-vehicle coverage threshold for GSM and UMTS. Those thresholds were based on network requirements to support 2G/3G data speeds and past usage demand. Today, customers expect low latency and faster data speeds as evidenced by increasing data usage trends and customer demand.

To meet those demands, AT&T's 4G LTE technology is designed to thresholds of -83 dBm and -93 dBm for their 700 MHz LTE and -86 dBm and -96 dBm for their 1900 MHz LTE. The stronger thresholds (-83 dBm and -86 dBm) yield greater throughputs and improved customer experience. The -93 dBm and -96 dBm thresholds are now the minimum acceptable levels required to meet customer expectations for 4G service and don't necessarily correlate to in-building or in-vehicle quality.

Q16. What is the existing signal strength within the area AT&T is seeking to cover from this site?

A16. *The existing signal strength in the areas that would be covered by the proposed Facility at 850 MHz range from -74 dBm (small areas on hills) down to less than -120 dBm, which does not constitute reliable coverage.*

Q17. Does AT&T have any statistics on dropped calls and/or ineffective attempts in the vicinity of the proposed facility? If so, what do they indicate? Does AT&T have any other indicators of substandard service in this area?

A17. *Yes. AT&T's dropped call data for the neighboring site CTL1008 and the sectors that face directly into the area where reliable service is needed indicate elevated voice and data drops. In addition, data testing indicates that substandard or nonexistent data service is provided within the area identified as a need for this site.*

Q18. Would the tower be needed for coverage, capacity, or both? Explain.

A18. *As detailed in the RF Report included in Tab 1 of AT&T's Application, the proposed Facility is needed to principally address a gap in reliable wireless coverage in this area of New Milford.*

Q19. Would AT&T provide both cellular and PCS services initially or cellular first and PCS in the future? When would LTE service be provided, if applicable? Explain.

A19. *AT&T will initially provide UMTS services over its cellular and PCS frequencies and LTE services over its 700 MHz frequencies when the site is placed into service. At some*

point in the future, AT&T will also provide LTE services over its PCS frequencies. Please see response 15 above.

Q20. What are the lengths of the individual coverage gaps on major roads that AT&T is seeking to cover from the proposed site at cellular frequencies? At PCS frequencies? At LTE frequencies?

A20. *Please see the table below for response 20 and 21:*

Name	Road	Current Coverage Gap in New Milford (miles)	Total Coverage Gap (miles)
Kent Road, New Milford, CT	Major	5.85	5.85
Memory Lane, New Milford, CT	Secondary	0.109	5.2267
Burkhardt Way, New Milford, CT	Secondary	0.2327	
Strid Lane, New Milford, CT	Secondary	0.156	
Meadowland Drive, New Milford, CT	Secondary	0.453	
Loorman Lane, New Milford, CT	Secondary	0.13	
Grove Road, New Milford, CT	Secondary	0.77	
Webatuck Rd., New Milford, CT	Secondary	0.613	
Housatonic Pt., Sherman, CT	Secondary	0.06	
Long River Road, Sherman, CT	Secondary	1.35	
Pond View Lane, Sherman, CT	Secondary	0.215	
Evans Hill Road, Sherman, CT	Secondary	0.95	
River Bend Lane, New Milford, CT	Secondary	0.188	

Q21. Provide similar data as requested in question 20 for secondary roads. However, the total sum of the gaps on secondary roads can be provided in lieu of the individual gaps by road.

A21. *Please see the table included in response 20 above.*

Q22. Provide the lengths of the proposed coverage of any major roads that AT&T seeks to provide coverage to based on the tower's proposed height, as well as ten and twenty feet shorter for cellular, PCS, and LTE frequencies as applicable. Provide similar data for secondary roads; however, the total sum of the coverage lengths of secondary roads may be provided in lieu of individual coverage lengths by road.

A22. *Please see the table below.*

Name	Road	Current Coverage Gap in New Milford (miles)	Total Coverage Gap	Proposed Cellular @ >= -82 dBm			Proposed PCS @ >= -82 dBm			Proposed LTE 700 @ >= -93 dBm		
				146' AGL	136' AGL	126' AGL	146' AGL	136' AGL	126' AGL	146' AGL	136' AGL	126' AGL
Kent Road, New Milford, CT	Major	5.85	5.85	1.935	1.474	1.469	0.2719	0.157	0.211	5.85	5.817	5.817
Memory Lane, New Milford, CT	Secondary	0.109	5.2267	0.109	0.109	0.109	0	0	0	0.109	0.109	0.109
Burkhardt Way, New Milford, CT	Secondary	0.2327		0.2327	0.2327	0.2327	0	0	0	0.2327	0.1431	0.1122
Strid Lane, New Milford, CT	Secondary	0.156		0.156	0.143	0.14	0.097	0.0797	0.0652	0.1312	0.1312	0.1312
Meadowland Drive, New Milford, CT	Secondary	0.453		0.129	0.089	0.089	0.077	0.0736	0.0561	0.453	0.384	0.326
Loorman Lane, New Milford, CT	Secondary	0.13		0.13	0.029	0.034	0	0	0	0.13	0.087	0.059
Grove Road, New Milford, CT	Secondary	0.77		0.679	0.675	0.666	0.0963	0.0794	0.014	0.691	0.689	0.689
Webatuck Rd., New Milford, CT	Secondary	0.613		0.567	0.265	0.238	0	0	0	0.613	0.613	0.613
Housatonic Pt., Sherman, CT	Secondary	0.06		0.06	0.06	0.06	0	0	0	0.06	0.06	0.06
Long River Road, Sherman, CT	Secondary	1.35		0.105	0.1	0.1	0.3298	0.3437	0.3761	1.35	1.35	1.35
Pond View Lane, Sherman, CT	Secondary	0.215		0.111	0.109	0.104	0.0697	0.0907	0.0904	0.215	0.215	0.215
Evans Hill Road, Sherman, CT	Secondary	0.95		0.605	0.343	0.316	0	0	0	0.95	0.95	0.95
River Bend Lane, New Milford, CT	Secondary	0.188		0.188	0.188	0.188	0.0196	0.003	0	0.188	0.188	0.188

Q23. What is the predicted coverage footprint from the proposed site (in square miles), at each frequency used by AT&T? Provide this data for antenna heights ten and twenty feet shorter.

A23. Please see the table below.

Technology	Antenna Centerline	Coverage Footprint in New Milford (sq miles)	
		>= -74 dBm	>= -82 dBm
UMTS Cellular	At 146' AGL	8.554	20.19
UMTS Cellular	At 136' AGL	8.548	20.1
UMTS Cellular	At 126' AGL	8.537	20.01
UMTS PCS	At 146' AGL	1.104	4.318
UMTS PCS	At 136' AGL	1.1	4.317
UMTS PCS	At 126' AGL	1.095	4.322

Q24. What was the approximate radius of AT&T's search ring for this area? Where is the approximate center of the search ring located? Provide the approximate longitude and latitude coordinates of the center of the search ring.

A24. The approximate radius of the search ring is 0.5 mile with a center located at 41.664203; -73.49653.

- Q25. In the Site Search Summary, would the site at 774 Kent Road meet AT&T's coverage objectives?
- A25. *No. A facility at this location would not meet AT&T's coverage objectives, particularly along Route 7 due to the low elevation at this location.*
- Q26. Has AT&T considered co-locating on any electric transmission structures in the vicinity of the FirstLight Hydro Generating facility?
- A26. *No. The electric transmission structures in the vicinity of the FirstLight Hydro Generating facility are located in a valley and as such, these structures do not have adequate height to meet AT&T's coverage objectives.*
- Q27. Did AT&T model the Evans Hill Road, Sherman facility at antenna heights higher than 120 feet? Could the tower meet coverage objectives at higher heights up to 190 feet?
- A27. *AT&T did not review antenna heights higher than 120 feet for a new tower site in Sherman. A taller facility at this location would not meet the coverage objectives for this search ring due to the distance of this site from the area targeted for coverage and intervening terrain.*

Backup power and safety standards/codes

- Q28. What would be the respective run time for AT&T's propane generator before it would need to be refueled, assuming it is running at full load?
- A28. *The proposed back-up emergency generator operates approximately 38 hours at full load before refueling.*
- Q29. Could the proposed generator be shared by other carriers that may locate at the proposed facility? What effect would a shared generator have on the run time of the generator if at full load?
- A29. *AT&T's proposed back-up emergency generator is sized for AT&T's use only. AT&T can design the compound to provide future flexibility for the possible deployment of a larger shared generator should another carrier (or future tower site owner) decide to deploy one in the future.*
- Q30. Would there be any interruption in service between the time power goes out and the generator comes online? For example, would AT&T provide battery backup to prevent a reboot condition and provide seamless power until the generator starts? If AT&T has a battery backup system, how many hours could it supply power in the event that the generator fails to start?
- A30. *AT&T will have a battery backup required to prevent the facility from experiencing a "re-boot" condition during the generator start-up delay period thus allowing for continued or*

"seamless" provision of service where signal levels allow. The battery backup system provides power to the facility for approximately 4 to 6 hours.

Q31. Has AT&T considered using a fuel cell as a backup power source for the proposed site? Explain.

A31. *No. As set forth in the Siting Council's Feasibility Study in Docket 432 (Feasibility study of backup power requirements for telecommunications towers and antennas pursuant to Public Act 12-148), the type of backup power chosen for use at a facility is determined by facility constraints (such as space, weight restrictions, lease arrangements, zoning codes), environmental limitations and liabilities, capital and operating/maintenance costs, network functionality and fuel availability. Costs and fuel sources (including lack of reliable distribution channels in some cases) have generally led AT&T to exclude them for its business plan.*

Q32. What size backup generator fuel tank would be necessary to satisfy a potential need for a minimum of 48 hours of runtime for AT&T? What size generator and fuel tank would be needed if two carriers were to share the generator and both required 48 hours of runtime? What if the generator were also shared with Town/emergency equipment?

A32. *Approximately 628 gallons of propane fuel is required for a 48 hour run time for AT&T. To supply 628 gallons, a 1,000 gallon propane tank would be required. Approximately twice as much propane, or 1256 gallons would be required for a 48 hour runtime for two carriers and two 1,000 gallon tanks would be required. The requirements for any Town emergency equipment are not known.*

As noted above in response number 29, AT&T's proposed back-up emergency generator is sized for AT&T's use only. AT&T can design the compound to provide future flexibility for the possible deployment of a larger shared generator should another carrier (or future tower site owner) decide to deploy one in the future.

Q33. What size concrete pad or equivalent would be needed to accommodate a backup generator for AT&T approximately 50 kW? What size concrete pad or equivalent would be needed to accommodate a shared backup generator approximately 200 kW?

A33. *The 50kW back-up emergency generator requires a 4' x 8' concrete pad and a 4' x 12' pad for the 500 gallon propane tank. A 200kW generator requires a 5' x 12' concrete pad and a 5' x 18' pad for the 1,000 gallon propane tank.*

Q34. Please provide the cost of a 50 kW backup generator. Please provide the cost of a 200 kW shared backup generator.

A34. *The cost of a 50kW propane emergency back-up generator is approximately \$25,000. The cost of a 200kW propane emergency back-up is approximately \$70,000. These costs are generator costs only and do not include any additional electrical equipment that may*

be required for a shared generator, or shipping costs, installation costs, additional fuel costs or added long term maintenance.

Q35. Identify the safety standards and/or codes by which equipment, machinery, or technology would be used or operated at the proposed facility.

A35. *OSHA and ET docket 93-62 and 47 CFR parts 1,2,15,42 and 97 as well as OET Bulletin 65, Edition 97-01.*

Environment

Q36. Would either tower be visible from any hiking trails within two mile radius area used for the visibility analysis?

A36. *It is anticipated that some locations along the Appalachian Trail may have partial views of the tower from vistas that occur to the east/southeast. Those views would be looking down into the valley where the hillside to the east would serve as a backdrop, such that the tower would not eclipse the ridgeline. From those perspectives, existing utility infrastructure would also be visible, including overhead transmission lines and the Bulls Bridge Hydroelectric Station.*

Q37. What, if any, stealth tower design options would be feasible to employ at this site?

A37. *The combination of the tower's size and the few locations where it will be visible do not afford effective stealth options. Visibility of the proposed tower appears to be limited to a small area, primarily along the Route 7 corridor for a total distance of less than one mile in length, with the majority of the views occurring as one passes by the hydroelectric plant. Overall, views would mostly be restricted to select locations within less than 0.5 mile of the site. However, from those locations where it would be visible, at 150 feet tall the tower rises above the tree line, in some cases by a substantial amount. The close proximity of those views does not allow sufficient distance for the hillside to the east to act as a backdrop, as it would for locations farther west, across the Housatonic River where seasonal views may occur over small pockets of land.*

Q38. Would flush-mounted antennas or antennas attached to the tower at the proposed height via T-arms provide the required coverage? Would either configuration result in reduced coverage and/or necessitate greater antenna height with multiple levels of antennas? Explain.

A38. *A flush mount configuration would result in reduced coverage or necessitate greater antenna height while hindering future technological upgrades. "Flush" mounting to a tower generally refers to close contact attachment of antennas directly to the tower without use of a platform or T-arms to offset antennas from a tower for mounting. When used on a tower structure, flush mounting usually only allows three to six antennas to be installed at one level (i.e. same height AGL). A carrier must then mount sets of three antennas at multiple levels on a tower. To achieve reliable service without compromising*

capacity or performance the lowest level would be at the minimum height necessary with additional levels installed above that minimum level on the tower. For example, an installation of twelve antennas on a tower would require the mounting of antennas at four levels (3 antennas per level) beginning at the minimum required height required. By comparison, platforms or t-arms would entail mounting of antennas at one level.

In general, because flush mounting requires the use of multiple levels on a tower by a single carrier, it limits the ability for other carriers to co-locate on that tower. A flush mount configuration also limits the space available for any additional equipment such as remote radio head units (RRH's), surge arrestors and other associated equipment carriers typically install along with its antennas. Flush mounting limits the space available on a given tower and it is conceivable such limits could inhibit future technological upgrades. It should also be noted that in many instances flush mounting can inhibit the ability of a carrier to tilt and angle antennas to maximally optimize performance and achieve the best coverage at a given height and location. While certainly possible, AT&T usually reserves flush mounting, or internal antenna usage to cases where it cannot meet federal regulatory requirements, cannot obtain a real property interest or it is not practical to deploy a full array based on prior decisions incorporated into Siting Council approvals.

Overall, it is AT&T's belief that a flush mount configuration is not warranted in this instance given visibility and operational collocation impacts.

Q39. What is the expected cumulative noise level at the nearest property line from the proposed facility assuming the generator and air conditioning units are running at the same time? Provide a similar analysis only taking into account the air conditioning units.

A39. *The expected noise level at the nearest property line (west) with the generator and air conditioners operating simultaneously is 44 dBA. The expected noise level at the nearest property line of the air conditioners operating without the emergency generator is 32 dBA. Please see the noise study included in Attachment 3. As noted therein, the anticipated noise level of the air conditioners at the nearest property line complies with C.G.S. Sections 22a-69-1 through 22a-69-7 governing noise levels. It should also be noted that while the emergency back-up generator is exempt from compliance with the levels included in C.G.S. Sections 22a-69-1 through 22a-69-7, the attached noise study shows that operation of the emergency generator simultaneously with the air conditioning units also complies with the standards.*

Q40. Please provide a Functions and Values assessment of Wetland 1.

A40. *Please see the Wetlands Evaluation Report included in Attachment 4.*

CERTIFICATE OF SERVICE

I hereby certify that on this day, an original and fifteen copies of the foregoing was sent electronically and by overnight mail to the Connecticut Siting Council.

Dated: March 7, 2014

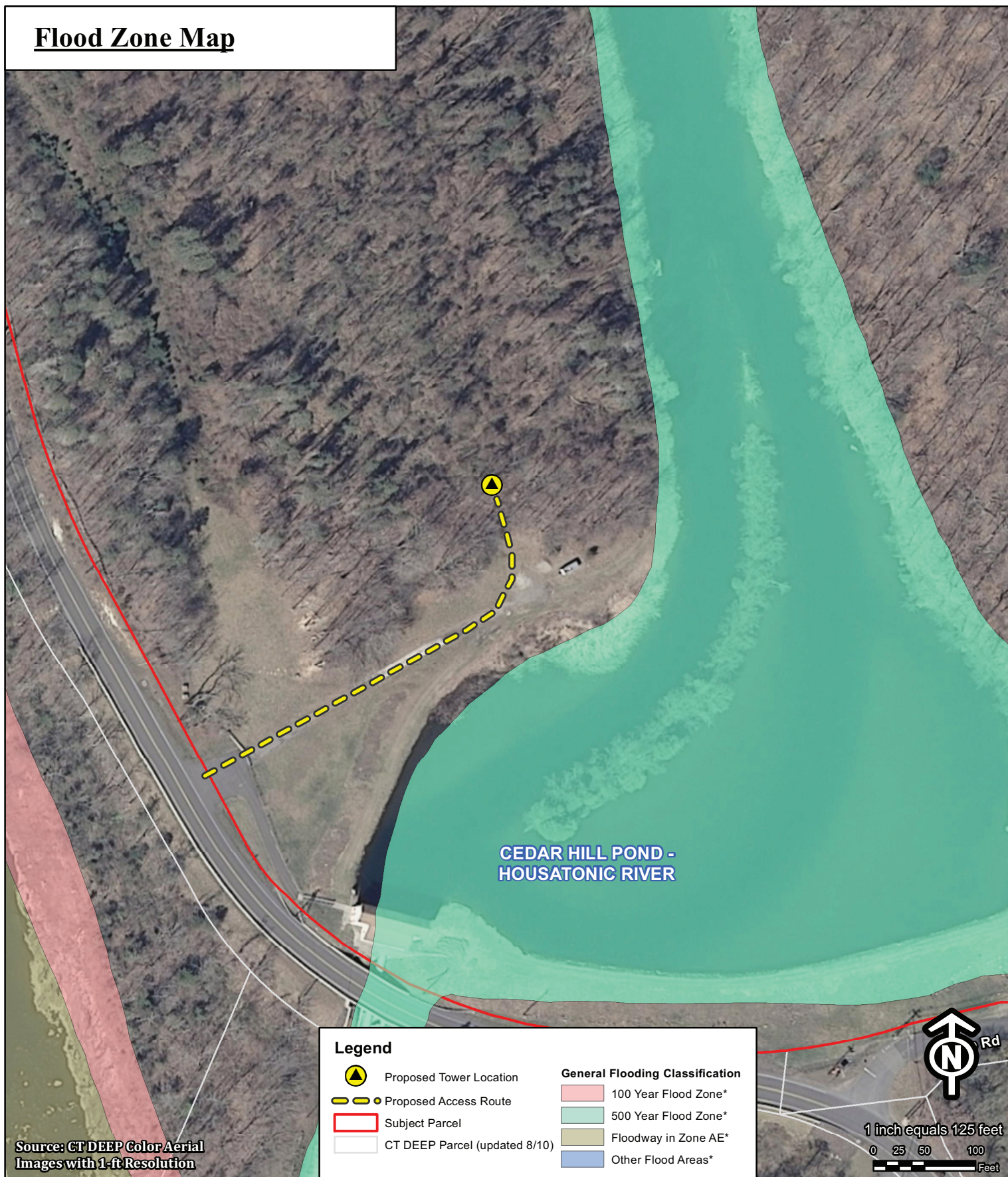
A handwritten signature in cursive script, reading "Lucia Chiocchio". The signature is written in dark ink and is positioned above a horizontal line.

Lucia Chiocchio

cc: Michele Briggs, AT&T
Peter LaMontagne, Centerline Communications
Alex Murshteyn, Centerline Communications
Carlo Centore, P.E., Centek
Michael Lawton, SAI
Michael Libertine, APT
Dean Gustafson, APT

ATTACHMENT 1

Flood Zone Map



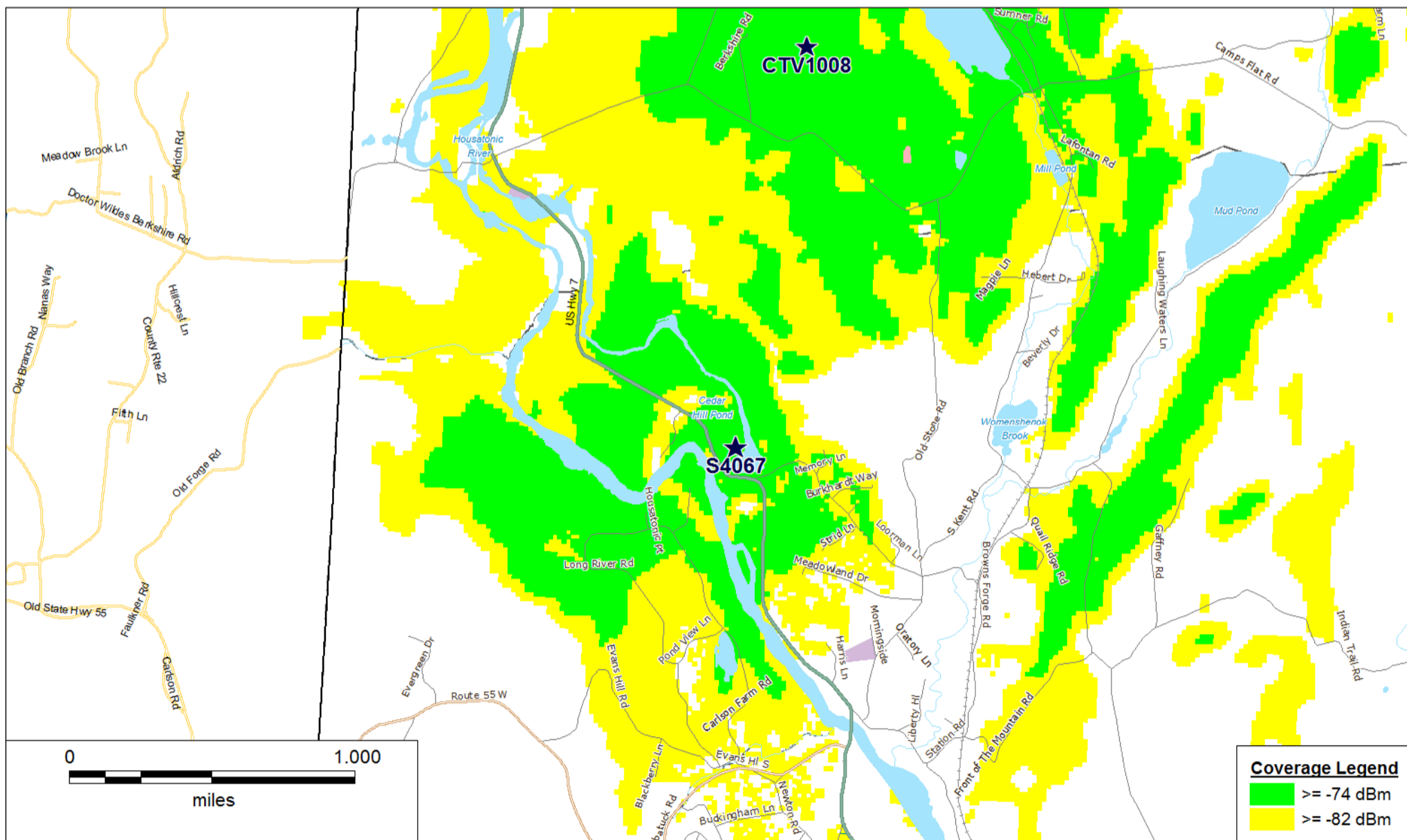
Proposed AT&T Wireless Communications Facility Kent Road (Map 83 Lot 4) New Milford, Connecticut



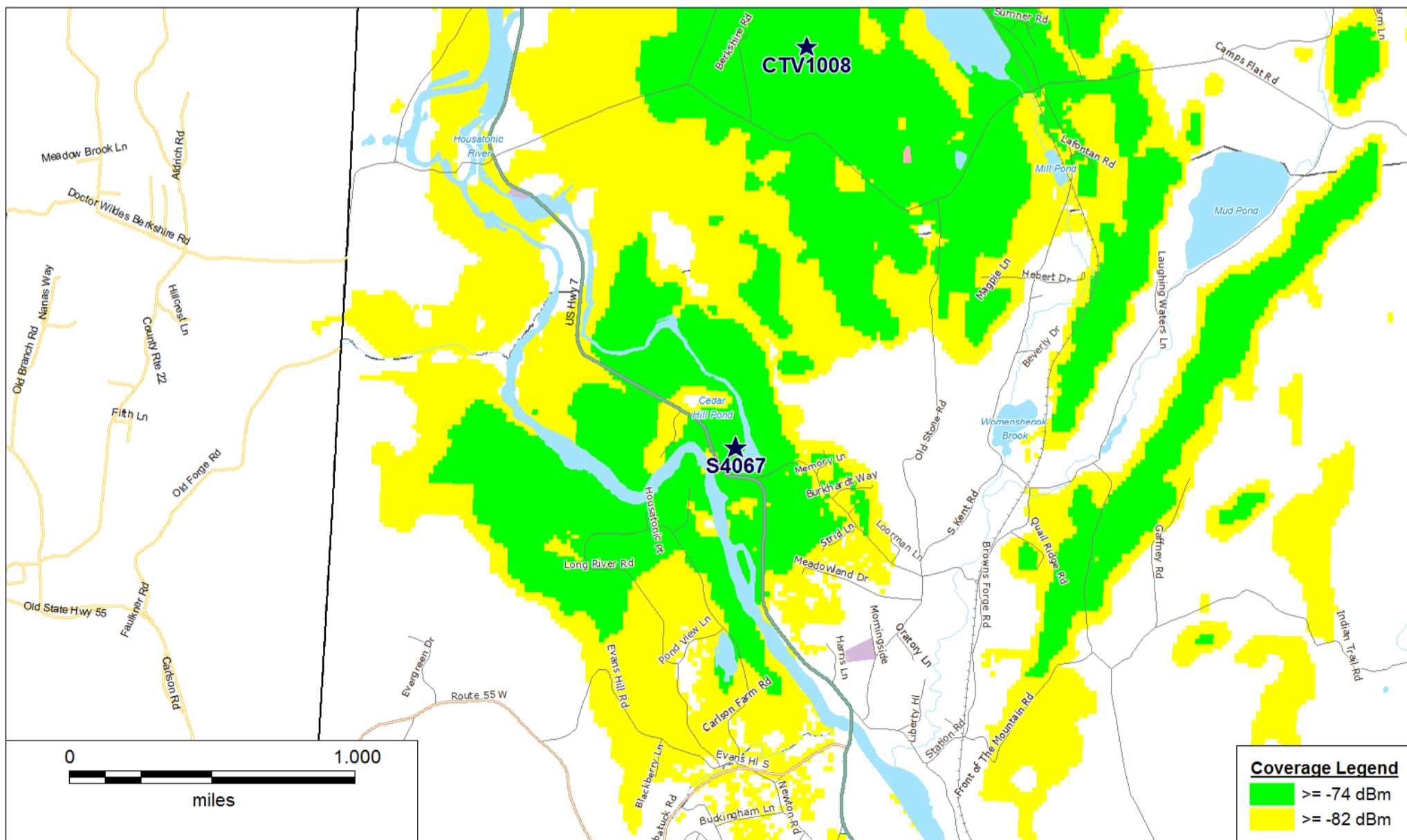
Monday, March 03, 2014



ATTACHMENT 2



AT&T Proposed Coverage (850 MHz) with S4067 at New Milford, CT @ 136' AGL



AT&T Proposed Coverage (850 MHz) with S4067 at New Milford, CT @ 126' AGL

ATTACHMENT 3



HMB Acoustics LLC

3 CherryTree Lane, Avon, Ct. 06001

860-677-5955

February 26, 2014

Harry M. Rocheville, EIT
Civil Engineer
Centek Engineering, Inc.
63-2 North Branford Road
Branford, Ct. 06405

Subject: New Milford: CSC Noise Compliance Study

Dear Mr. Rocheville:

The noise levels for the A-1 and A-2 wall mounted HVAC units were calculated while the two units were running simultaneously. The combined noise level was then projected to each property line. The resultant noise levels were compared to the State of Ct. Noise Regulation.

The noise level for the generator (A-3) was calculated while the two HVAC units (A-1 & A-2) were running together. The combined noise level (A-1; A-2; and A-3) was then projected to each property line. The resultant noise levels were compared to the State of Ct. Noise Regulation.

The Regulation allows a noise level of 55 dBA (daytime) and 45 dBA (nighttime), when measured at a Residential Receptor's property line. I found that the two HVAC units running together without the generator; as well as the generator and two HVAC units running together; meet the conditions for compliance as set forth in the Regulation at all property lines.

Allan Smardin
HMB Acoustics LLC

PROJECT INFORMATION:	Centek Job #: 13072.000
Applicant: AT&T Mobility	
Applicant Site ID: CT4086 - New Milford	
Site Owner: AT&T	
Site Address: Kent Road (Map 83, Lot 4)	
Subject Zoning District: R-80: Residential	
Abutting Zoning District(s): R-40: Residential (To South) R-80: Residential	

APPLICANT EQUIPMENT:						
ID	Noise Emitter	Make/Model	Prop. Line. Dist. (FT)			
			North	South	East	West
A-1	Wall Mounted HVAC	Marvair/ ASDCA60	2016	511	886	376
A-2	Wall Mounted HVAC	Marvair/ ASDCA60	2022	506	883	377
A-3	Propane Generator	Generac/ SG050	2044	480	894	353

EXISTING COLOCATORS:			
<input type="checkbox"/> AT&T	<input type="checkbox"/> Metro PCS	<input type="checkbox"/> Other:	
<input type="checkbox"/> Sprint	<input type="checkbox"/> T Mobile	<input type="checkbox"/> Other:	
<input type="checkbox"/> Nextel	<input type="checkbox"/> None	<input type="checkbox"/> Other:	

EXISTING COLOCATOR EQUIPMENT OWNER:						
ID	Noise Emitter	Make/Model	Prop. Line. Dist. (FT)			
			North	South	East	West

EXISTING COLOCATOR EQUIPMENT OWNER:						
ID	Noise Emitter	Make/Model	Prop. Line. Dist. (FT)			
			North	South	East	West

EXISTING COLOCATOR EQUIPMENT OWNER:						
ID	Noise Emitter	Make/Model	Prop. Line. Dist. (FT)			
			North	South	East	West

EXISTING COLOCATOR EQUIPMENT OWNER:						
ID	Noise Emitter	Make/Model	Prop. Line. Dist. (FT)			
			North	South	East	West

EXISTING COLOCATOR EQUIPMENT OWNER:						
ID	Noise Emitter	Make/Model	Prop. Line. Dist. (FT)			
			North	South	East	West

CONCLUSION:			
Daytime Regulation:	55 dBA	Nighttime Regulation:	45 dBA
Compliance:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Compliance:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
BASIS OF FINDINGS:			
A1 & A2 (air conditioners) running together:			
North property line = 18 dBA; South property line = 28 dBA			
East property line = 15 dBA; West property line = 32 dBA			
A1 & A2 (air conditioners) & A3 (generator) running together:			
North property line = 25 dBA; South property line = 43 dBA			
East property line = 37 dBA; West property line = 44 dBA			
The dBA levels take into account the acoustical shielding effect provided by the equipment shelter.			
Prepared By: Alan Smardin, HMB ACOUSTICS LLC		Date: 02/26/14	



1
C-1
SITE PLAN - PROPOSED
SCALE: 1" = 600'-0"



GRAPHIC SCALE
0 300 600
(IN FEET)
1 inch = 600 ft.

REV.	DATE	HMR DRAWN BY	CFC CHK'D BY	NOISE EMITTER INFORMATION DESCRIPTION
0	02/25/14			



CENTEK engineering
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(203) 488-8387 Fax
63.2 North Branford Road, Branford, CT 06405

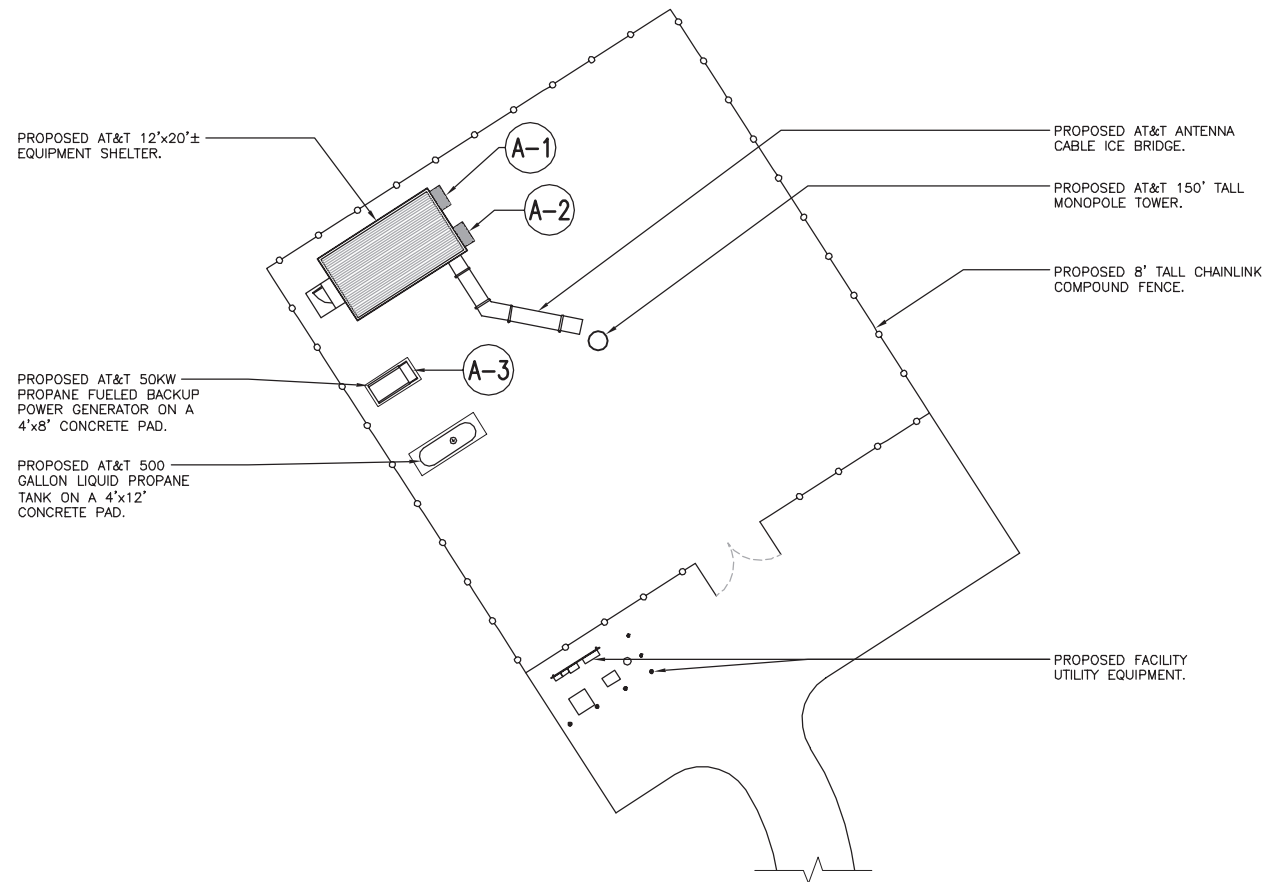
AT+T MOBILITY
NEW MILFORD
CT4067
KENT ROAD (MAP 83, LOT 4)
NEW MILFORD, CT 06776
DATE: 02/25/14
SCALE: AS NOTED
JOB NO. 13072.000

**ELEVATION,
PLAN AND
ANTENNA
CONFIG.**

C-1
DWG. 1 OF 2

NOISE EMMITTER INFORMATION

- (A-1) WALL MOUNTED HVAC UNIT, MAKE: MARVAIR, MODEL: ASDCA60
- (A-2) WALL MOUNTED HVAC UNIT, MAKE: MARVAIR, MODEL: ASDCA60
- (A-3) PROPANE FUELED GENERATOR, MAKE: GENERAC, MODEL: SG050



1
C-2

COMPOUND PLAN - PROPOSED
SCALE: 1" = 30'-0"

APPROXIMATE
NORTH

GRAPHIC SCALE
0 15 30
(IN FEET)
1 inch = 30 ft.

REV.	DATE	DRAWN BY	CHECKED BY	NOISE EMMITTER INFORMATION DESCRIPTION
0	02/25/14	HMR	CFC	



CEN TEK engineering
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www.CentekEng.com
(203) 488-0380
(203) 488-8387 Fax
63.2 North Branford Road, Branford, CT 06405

AT+T MOBILITY
NEW MILFORD
CT4067
KENT ROAD (MAP 83, LOT 4)
NEW MILFORD, CT 06776

DATE: 02/25/14
SCALE: AS NOTED
JOB NO. 13072.000

COMPOUND
PLAN

C-2
DWG. 2 OF 2

ATTACHMENT 4



WETLAND EVALUATION REPORT

March 3, 2014

**Site Acquisitins, Inc.
500 Enterprise Drive, Suite 3A
Rocky Hill, CT 06067**

APT Project No.: CT1931020

**Re: Response to Interrogatory #40
CT Siting Council Docket 440
Proposed AT&T Facility
Kent Road (Map 83 Lot 4)
New Milford, Connecticut**

All-Points Technology Corporation, P.C. ("APT") understands that a wireless telecommunications facility ("Facility") is proposed by New Cingular Wireless PCS, LLC ("AT&T") at Kent Road (Map 83, Lot 4) in New Milford, Connecticut ("Site" or "Subject Property"). The Connecticut Siting Council's ("Council") pre-hearing question number 40 requested a functions and values assessment of Wetland 1. The following evaluation of functions and values supported by Wetland 1 is provided.

Site and Wetland Descriptions:

The Subject Property consists of an approximately 168.5 acre parcel developed with a hydro-electric facility identified as Kent Road in New Milford, Connecticut. The area proposed for the wireless communications facility in the central portion of the Site is currently mature upland forest. Much of the Subject Property consists of open water associated with the Cedar Hill Pond created by a dam of a diversion canal from the Housatonic River starting at a dam at Bulls Bridge in Kent, Connecticut. This system of dams and diversion channel were created for the purposes of generating hydroelectric power at a plant located near Cedar Hill Pond west of Kent Road (Route 7). The surrounding land use consists of residential development and mature forest blocks.

Two wetland areas were delineated on the Site consisting of a well-developed western bank of Cedar Hill Pond and a small isolated back-water wetland area adjacent to Kent Road. Wetlands were marked with pink and blue plastic flagging tape numbered with the following sequence: Wetland 1: WF 1 to 25; and, Wetland 2: WF 2-01 to 2-09.

Wetland 1, the subject of this evaluation, is a large open water wetland feature associated with Cedar Hill Pond, an impounded diversion of the Housatonic River created by the Cedar Hill Pond Dam. Impounded water is controlled by a hydro-electric facility located on the west side of Kent Road. Much of the western and northern bank of Cedar Hill Pond is armored with rip rap. As a result of the control of water elevation by the hydroelectric dam, this portion of the river appears to have been separated from any active floodplain. Sparse vegetation has colonized the banks.

ALL-POINTS TECHNOLOGY CORPORATION, P.C.

☒ 3 SADDLEBROOK DRIVE · KILLINGWORTH, CT 06419 · PHONE 860-663-1697 · FAX 860-663-0935

☐ P.O. BOX 504 · 116 GRANDVIEW ROAD · CONWAY, NH 03818 · PHONE 603-496-5853 · FAX 603-447-2124

Wetland 2 is a small isolated depressional backwater wetland area that appears to have been disconnected from former floodplain of the Housatonic River. Evidence of historic alluvial soil deposition activity was observed within soil profiles investigated within Wetland 2. It appears that with the building of the Cedar Hill Dam this wetland area lost some of its active hydrology.

Wetland Evaluation – Wetland 1

There are many methods of evaluating wetlands, all incorporating different parameters to assess these resources. This study uses The *Highway Methodology Workbook Supplement, Wetland Functions and Values: A Descriptive Approach* issued by the US Army Corps of Engineers New England District (“COE NED”), September 1999. This evaluation provides a qualitative approach in which wetland functions can be considered primary, secondary, or unlikely to be provided at a significant level. Functions and values can be principal if they are an important physical component of a wetland ecosystem (function only), and/or are considered of special value to society, from a local, regional, and/or national perspective. The COE NED recommends that wetland values and functions be determined through “best professional judgment” based on a qualitative description of the physical attributes of wetlands and the functions and values exhibited.

Wetland 1 is classified as a riparian wetland due to its association with a perennial watercourse (Housatonic River diversion channel), which includes primarily open water habitat. The principal and secondary functions provided by this wetland include water quality (nutrient and sediment removal/retention/transformation), floodflow alteration, fish habitat, sediment/toxicant retention, nutrient removal, sediment/shoreline stabilization, wildlife habitat and uniqueness/heritage. A summary of this wetland’s functions and values is provided below.

Biological Functions: Fish habitat is considered a principal function of Wetland 1 due to its association with the Housatonic River. The Cedar Hill Pond contains in-water cover objects and structure for fish habitat and spawning. Unidentified fish were observed within the pond during APT’s wetland delineation field work in July and August 2013.

This wetland system provides wildlife habitat functions at a secondary level due to the limited diversity of wetland vegetation habitats. The interruption of the riparian corridor by the Cedar Hill Pond Dam and Route 7 results in additional limitations to the wildlife habitat function of this wetland system.

Low levels of production export from this wetland are anticipated due to the dam and controlled release of water through the hydroelectric plant. This wetland system is moderately effective at providing production export since it does not support a large diversity of vegetation, wildlife food sources or commercially used products.

Hydrologic Functions: The wetland provides floodflow alteration at a secondary level due to the Cedar Hill Pond Dam.

The diversion channel was constructed primarily within bedrock with the planned function of conveying water to the hydroelectric plant. By the very nature of this design, this wetland system does not contribute significantly to groundwater base flow to the river or water table.

Water Quality Functions: The wetland provides sediment, toxicant, and pathogen retention functions at a secondary level. The wetland has the capacity to settle and retain sediments, toxicants and pathogens due to the restricted outlet (dam) but opportunities to provide this function is limited by a general lack of sources immediately upstream of the subject property. This wetland system provides nutrient removal/nutrient retention/transformation at a secondary level for similar reasons.

Sediment/shoreline stabilization functions are supported at a secondary level with the banks of Cedar Hill Pond primarily armored with rip rap.

Societal Values: The Cedar Hill Pond wetland system does not provide recreational value as the property is restricted from public access. Educational value is limited due to lack of diversity of wetland habitats, no rare species and restricted public access.

The Uniqueness/Heritage value considers the special value of a wetland in context with the overall landscape, cultural features, and rarity of wetland/habitat type in the local area. No threatened or endangered species are known to occur on the subject property. The CTDEEP Natural Diversity Data Base Program determined that no records exist of rare state-listed animals or plants, significant natural communities or other significant habitats, on or in the immediate vicinity of the subject property. The wetland does provide uniqueness/heritage value in a secondary capacity due to its association with the Bulls Bridge hydroelectric power plant project that was constructed in 1903.

Wetlands within the subject property do support Visual Quality/Aesthetics value but opportunity to enjoy this value is not supported due to restricted public access and minimal visibility from the adjoining road.

A Wetland Function-Value Evaluation Summary Table and Office/Field Forms are attached.

Wetland Impact Analysis

Based on a review of the Site/Site Survey Plan prepared by Centek Engineering (Sheet No. C-1A, latest revision date 09/06/13), no direct impact to wetlands is associated with the proposed AT&T development. Portions of the proposed access drive are located in close proximity to wetland resources (within approximately 18 feet of wetland flag WF 10). The proposed south side of the wireless communications compound is located approximately 96 feet from the nearest wetland edge (at WF 11). However, no temporary impacts associated with construction activities are anticipated provided sedimentation and erosion controls are designed, installed and maintained during construction activities in accordance with the *2002 Connecticut Guidelines For Soil Erosion and Sediment Control*. Long term secondary impacts to wetland resources possibly associated with the operation of this Facility are minimized by the fact the development is unmanned, it minimizes the creation of impervious surfaces with the use of a gravel access drive and gravel compound, and it creates minimal traffic. APT recommends that stormwater generated by the proposed development be properly handled and treated in accordance with the *2004 Connecticut Stormwater Quality Manual*. Provided these recommendations are implemented, it is APT's opinion that the proposed AT&T development will not result in a likely adverse impact to wetland resources or the functions and values supported by this nearby wetland system.

If you have any questions regarding the above-referenced information, please feel free to contact me by telephone at (860) 984-9515 or via email at dgustafson@allpointstech.com.

Sincerely,

All-Points Technology Corporation, P.C.



Dean Gustafson
Senior Wetland Scientist

Enclosures

**Wetland Function-Value Evaluation
Summary Table**

&

**Field/Office Wetland Function-Value
Evaluation Form**

Wetland Function-Value Evaluation Summary Table

Total area of wetland	>5 ac.	Human Made?	Yes	Is wetland part of a wildlife corridor?	Yes	or a "habitat Island"?	No	Wetland ID	Wetland 1 (WF 1 to 25)
Adjacent land use	undeveloped, hydroelectric plant			Distance to nearest roadway or other development			adjacent to Rt. 7	Latitude/ Longitude	41.660675° N, -73.490691° W
Dominant wetland systems present	Open Water			Contiguous undeveloped buffer zone present			No	Prepared by	D. Gustafson Date 3/3/14
Is the wetland a separate hydraulic system?	No	If not, where does the wetland lie in the drainage basin?			lower perennial			Wetland Impact	
								Type:	None Area None SF
How many Tributaries contribute to the wetland?		Bulls Bridge Dam diversion channel for hydroelectric plant		Wildlife & vegetation diversity/abundance		Yes		Corps manual wetland delineation	
								Completed?	Yes

Function/Value	Suitability		Rationale (Reference #)*	Principal Function(s)/Values(s)	Comments
	Y	N			
Groundwater Recharge/Discharge	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7		impounded stream channel not anticipated to contribute to significant groundwater recharge
Floodflow Alteration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5-11, 13, 15-17	S	some flood storage capacity provided by dam
Fish and Shellfish Habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-4, 6, 7, 9-14, 16, 17	P	Bulls Bridge Dam diversion channel provides coldwater fisheries habitat while Cedar Hill Pond provides warmwater fisheries habitat
Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3, 5, 6, 8-13	S	opportunity for upgradient sediments/toxicants to enter wetland not significant; wetland holds water for relatively long duration due to Cedar Hill Pond Dam
Nutrient Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2, 3, 5, 7, 10, 11, 13, 14	S	opportunity for upgradient nutrients to enter wetland during flooding events not significant
Production Export	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2, 4		function is limited due to general lack of vegetation species and structure diversity and Cedar Hill Pond Dam minimizes production export downstream
Sediment/Shoreline Stabilization	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 3, 4, 6, 14	S	river banks armored with rip-rap
Wildlife Habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2, 4-8, 12, 16, 17, 18	S	open water habitat provided by Housatonic River diversion channel and Cedar Hill Pond
Recreation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4-7, 9, 10		public access restricted
Educational/Scientific Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2, 5, 8, 11, 12, 14		public access restricted
Uniqueness/Heritage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3, 6, 7, 9, 11, 13, 14, 16, 17, 19, 21-23	S	Cedar Hill Pond dam provides some heritage value
Visual Quality/Aesthetics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2, 5, 6, 11, 12		Public access restricted
Endangered Species Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	None		no know endangered species occupying area
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

* Refer to Field / Office Wetland Function-Value Evaluation Form for number considerations.

Field / Office Wetland Function-Value Evaluation Form

Date(s):	March 3, 2014		Project Location:	Cedar Hill Pond, Kent Road New Milford, CT	
Inspector(s):	Dean Gustafson, PSS		Wetland ID:	Wetland 1 (1 to 25)	
Corps Delineation:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	CT Delineation:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Area:	> 5 acres		Proposed Impact:	Type:None	Area:None
Created Wetland:	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Adjacent Land Use:	Undeveloped Forest	
Dominate System:	Open Water		Nearest Roadway:	Kent Road (Route 7)	
Wildlife Corridor:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Habitat Island:	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Tributaries:	Bulls Bridge Dam diversion channel for hydroelectric plant		Buffer Condition:	Undeveloped - Forested	
Site Photo(s):	June 15, 2013 photos attached		Species List(s):	Refer to Wetlands Delineation Report	
Wetland 1 is large open water wetland feature associated with the Cedar Hill Pond, an impounded diversion of the					
Housatonic River created by the Bulls Bridge Dam diversion channel and Cedar Hill Pond Dam. Impounded water is					
controlled by a hydro-electric facility located on the west side of Kent Road. Much of the western banks on Cedar Hill Pond					
are armored with rip-rap with sparse vegetation.					

GROUNDWATER RECHARGE/DISCHARGE FUNCTION

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Public or private wells occur downstream of the wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Potential exists for public or private wells downstream of the wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Wetland is underlain by stratified drift.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Gravel or sandy soils present in or adjacent to the wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Fragipan does not occur in the wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Fragipan, impervious soils, or bedrock does occur in the wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Wetland is associated with a perennial or intermittent watercourse.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Signs of groundwater recharge are present or piezometer data demonstrates recharge.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Wetland is associated w/ a watercourse but lacks a defined outlet/contains a constricted outlet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Wetland contains only an outlet, no inlet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Groundwater quality of stratified drift aquifer within or downstream of wetland meets drinking water standards.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Quality of water associated with the wetland is high.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Signs of groundwater discharge are present (e.g., springs).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14. Water temperature suggests it is a discharge site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15. Wetland shows signs of variable water levels	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16. Piezometer data demonstrates discharge.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments: wetland contributes minimally to base flow of river or groundwater			

FLOODFLOW ALTERATION FUNCTION

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Area of this wetland is large relative to its watershed.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Wetland occurs in the upper portions of its watershed.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Effective flood storage is small or non-existent upslope of or above the wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Wetland watershed contains a high percent of impervious surfaces.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Wetland contains hydric soils which are able to absorb and detain water.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Wetland exists in a relatively flat area that has flood storage potential.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wetland has an intermittent outlet, ponded water, or signs are present of variable water level.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. During flooding wetland retains higher volumes of water than under normal/average rainfall conditions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Wetland receives and retains overland or sheet flow runoff from surrounding uplands.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. During a storm, this wetland may receive and detain excessive flood water from a nearby watercourse.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. Valuable properties, structures, or resources are located in/near floodplain downstream of the wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12. The watershed has a history of economic loss due to flooding.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. This wetland is associated with one or more watercourses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. This wetland watercourse is sinuous or diffuse.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15. This wetland outlet is constricted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Channel flow velocity is affected by this wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Land uses downstream are protected by this wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. This wetland contains a high density of vegetation.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments: wetland provides flood storage capacity as a result of dam			

FISH AND SHELLFISH HABITAT (FRESHWATER) FUNCTION

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Forest land dominant in the watershed above this wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Abundance of cover objects present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STOP HERE IF THIS WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE			
3. Size of this wetland is able to support large fish/shellfish populations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Wetland is part of a larger, contiguous watercourse.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Sufficient open water size/depth so as not to freeze solid and retain some open water during winter.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Stream width (bank to bank) is more than 50 feet.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Quality of watercourse associated with wetland is able to support healthy fish/shellfish populations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Streamside vegetation provides shade for the watercourse.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Spawning areas are present (submerged vegetation or gravel beds).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Food is available to fish/shellfish populations within this wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Anadromous fish barrier(s) absent from stream reach associated with this wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Evidence of fish is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Wetland is stocked with fish.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. The watercourse is persistent.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Man-made streams are absent.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16. Water velocities are not too excessive for fish usage.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Defined stream channel is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: coldwater fisheries habitat exists			

FISH AND SHELLFISH HABITAT (MARINE) FUNCTION

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Special aquatic sites (tidal marsh, mud flats, eelgrass beds) are present.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Suitable spawning habitat is present at the site or in the area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Commercially or recreationally important species are present or suitable habitat exists.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. The wetland/waterway supports prey for higher trophic level marine organisms.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. The waterway provides migratory habitat for anadromous fish.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Essential fish habitat (1996 amendments to the Magnuson-Stevens) Fishery & Conservation Act present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments: habitat does not exist in this wetland			

SEDIMENT/TOXICANT/PATHOGEN RETENTION FUNCTION

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Potential sources of excess sediment are in the watershed above the wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Potential or known sources of toxicants are in the watershed above the wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Opportunity for sediment trapping by slow moving water/deepwater habitat is present in wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Fine grained mineral or organic soils are present.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Long duration water retention time is present in this wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Public or private water sources occur downstream.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. The wetland edge is broad and intermittently aerobic.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. The wetland is known to have existed for more than 50 years.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Drainage ditches have not been constructed in the wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STOP HERE IF WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE			
10. Wetland is associated with an intermittent or perennial stream or a lake.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. Channelized flows have visible velocity decreases in the wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Effective floodwater storage in wetland is occurring. Areas of impounded open water are present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. No indicators of erosive forces are present. No high water velocities are present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Diffuse water flows are present in the wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15. Wetland has a high degree of water and vegetation interspersion.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16. Dense vegetation provides sediment trapping/signs of sediment accumulation are present.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments: Cedar Hill Pond Dam holds water			

NUTRIENT REMOVAL/RETENTION/TRANSFORMATION FUNCTION

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Wetland is large relative to the size of its watershed.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Deep water or open water habitat exists.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Overall potential for sediment trapping exists in the wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Potential sources of excess nutrients are present in the watershed above the wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Wetland saturated for most of the season. Pooled water is present in the wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Deep organic/sediment deposits are present.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Slowly drained fine grained mineral or organic soils are present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Dense vegetation is present.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Emergent vegetation and/or dense woody stems are dominant.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Opportunity for nutrient attenuation exists.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Vegetation diversity/abundance sufficient to utilize nutrients.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

STOP HERE IF WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE			
12. Waterflow through this wetland is diffuse.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Water retention/detention time in this wetland is increased by constricted outlet or thick vegetation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Water moves slowly through this wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			

PRODUCTION EXPORT (Nutrient) FUNCTION

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Wildlife food sources grow within this wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Detritus development is present within this wetland	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Economically or commercially used products found in this wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Evidence of wildlife use found within this wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Higher trophic level consumers are utilizing this wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Fish or shellfish develop or occur in this wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. High vegetation density is present.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Wetland exhibits high degree of plant community structure/species diversity.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. High aquatic vegetative diversity/abundance is present.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Nutrients exported in wetland watercourses (permanent outlet present).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. "Flushing" of relatively large amounts of organic plant material occurs from this wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Wetland contains flowering plants that are used by nectar-gathering insects.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Indications of export are present.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14. High production levels occurring with no visible signs of export (assumes export is attenuated).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments: function is limited due to general lack of vegetation species and structure diversity and Cedar Hill Pond Dam minimizes production export downstream			

SEDIMENT/ShORELINE STABILIZATION FUNCTION

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Indications of erosion or siltation are present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Topographical gradient is present in wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Potential sediment sources are present up-slope.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Potential sediment sources are present upstream.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. No distinct shoreline or bank is evident between the waterbody and the wetland or upland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. A distinct step between the open waterbody or stream and the adjacent land exists (i.e., sharp bank) with dense roots throughout.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Wide wetland (>10') borders watercourse, lake, or pond.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. High flow velocities in the wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. The watershed is of sufficient size to produce channelized flow.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Open water fetch is present.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Boating activity is present.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Dense vegetation is bordering watercourse, lake, or pond.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. High percentage of energy-absorbing emergents and/or shrubs border a watercourse, lake, or pond.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14. Vegetation is comprised of large trees and shrubs that withstand major flood events or erosive incidents and stabilize the shoreline on a large scale (feet).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. Vegetation is comprised of a dense resilient herbaceous layer that stabilizes sediments and the shoreline on a small scale (inches) during minor flood events or potentially erosive events.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments: river/pond banks contain relatively sparse vegetation and are armored with rip rap			

WILDLIFE HABITAT FUNCTION

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Wetland is not degraded by human activity.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Water quality of watercourse/pond/lake associated w/ wetland meets/exceeds Class A or B standards.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Wetland is not fragmented by development.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Upland surrounding this wetland is undeveloped.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. > 40% of wetland edge bordered by upland wildlife habitat at least 500 ft in width.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Wetland is contiguous with other wetland systems connected by a watercourse or lake.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Wildlife overland access to other wetlands is present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Wildlife food sources are within this wetland or are nearby.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Wetland exhibits a high degree of interspersed vegetation classes and/or open water.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Two or more islands or inclusions of upland within the wetland are present.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Dominant wetland class includes deep or shallow marsh or wooded swamp.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. > 3 acres shallow permanent open water (< 6.6 feet deep), including in/adjacent streams present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Density of the wetland vegetation is high.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14. Wetland exhibits a high degree of plant species diversity.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15. Wetland exhibits high degree plant community structure diversity (tree/shrub/vine/grasses/mosses)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16. Plant/animal indicator species are present. (List species for project)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Animal signs observed (tracks, scats, nesting areas, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Seasonal uses vary for wildlife and wetland appears to support varied population diversity/abundance during different seasons.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Wetland contains or has potential to contain a high population of insects.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20. Wetland contains or has potential to contain large amphibian populations.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
21. Wetland has a high avian utilization or its potential.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
22. Indications of less disturbance-tolerant species are present.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23. Signs of wildlife habitat enhancement are present (birdhouses, nesting boxes, food sources, etc.).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments: open water habitat provided by Wetland 1			

RECREATION (Consumptive and Non-Consumptive) VALUE

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Wetland is part of a recreation area, park, forest, or refuge.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Fishing is available within or from the wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Hunting is permitted in the wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Hiking occurs or has potential to occur within the wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Wetland is a valuable wildlife habitat.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The watercourse, pond, or lake associated with the wetland is unpolluted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. High visual/aesthetic quality of this potential recreation site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Access to water is available at this potential recreation site for boating, canoeing, or fishing.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Watercourse associated w/ wetland is wide & deep enough to accommodate canoeing and/or non-powered boating.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Off-road public parking available at the potential recreation site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Accessibility and travel ease is present at this site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. The wetland is within a short drive or safe walk from highly populated public and private areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments: public access is restricted			

EDUCATIONAL/SCIENTIFIC VALUE

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Wetland contains or is known to contain threatened, rare, or endangered species.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Little or no disturbance is occurring in this wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Potential educational site contains a diversity of wetland classes & are accessible/potentially accessible.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Potential educational site is undisturbed and natural.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Wetland is considered to be a valuable wildlife habitat.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Wetland is located within a nature preserve or wildlife management area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Signs of wildlife habitat enhancement present (bird houses, nesting boxes, food sources, etc.).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Off-road parking at potential educational site suitable for school bus access in or near wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Potential educational site is within safe walking distance or a short drive to schools.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Potential educational site is within safe walking distance to other plant communities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Direct access to perennial stream at potential educational site is available.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Direct access to pond or lake at potential educational site is available.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. No known safety hazards exist within the potential educational site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14. Public access to the potential educational site is controlled.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Handicap accessibility is available.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16. Site is currently used for educational or scientific purposes.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments: limited value due to public access restrictions			

UNIQUENESS/HERITAGE VALUE

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Upland surrounding wetland is primarily urban.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Upland surrounding wetland is developing rapidly.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. > 3 acres of shallow permanent open water (< 6.6 feet deep), including streams, occur in wetlands.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Three or more wetland classes are present.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Deep and/or shallow marsh or wooded swamp dominate.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. High degree of interspersed vegetation and/or open water occur in this wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Well-vegetated stream corridor (15 feet on each side of the stream) occurs in this wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Potential educational site is within a short drive or a safe walk from schools.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Off-road parking at potential educational site is suitable for school buses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. No known safety hazards exist within this potential educational site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Direct access to perennial stream or lake exists at potential educational site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Two or more wetland classes are visible from primary viewing locations.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Low-growing wetlands (marshes, scrub-shrub, bogs, open water) visible from primary viewing locations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Half an acre of open water or 200 feet of stream is visible from the primary viewing locations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Large area of wetland dominated by flowering plants/plants that seasonally turn vibrant colors	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16. General appearance of the wetland visible from primary viewing locations is unpolluted and/or undisturbed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Overall view of the wetland is available from the surrounding upland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Quality of the water associated with the wetland is high.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
19. Opportunities for wildlife observations are available.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Historical buildings are found within the wetland.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
21. Presence of pond or pond site and remains of a dam occur within the wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

22. Wetland is within 50 yards of the nearest perennial watercourse.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Visible stone or earthen foundations, berms, dams, standing structures, or associated features occur within the wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Wetland contains critical habitat for a state- or federally-listed threatened or endangered species.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
25. Wetland is known to be a study site for scientific research.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
26. Wetland is a natural landmark or recognized by the state natural heritage inventory authority as an exemplary natural community.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
27. Wetland has local significance because it serves several functional values.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
28. Wetland has local significance because it has biological, geological, or other features that are locally rare or unique.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
29. Wetland is known to contain an important archaeological site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
30. Wetland is hydrologically connected to a state or federally designated scenic river.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
31. Wetland is located in an area experiencing a high wetland loss rate.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments: Cedar Hill Pond Dam provides some heritage value due to 1903 construction			

VISUAL QUALITY/AESTHETICS VALUE

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Multiple wetland classes are visible from primary viewing locations.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Emergent marsh and/or open water are visible from primary viewing locations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A diversity of vegetative species is visible from primary viewing locations.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Wetland is dominated by flowering plants or plants that turn vibrant colors in different seasons.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Land use surrounding the wetland is undeveloped as seen from primary viewing locations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Visible surrounding land use form contrasts with wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Wetland views absent of trash, debris, and signs of disturbance.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Wetland is considered to be a valuable wildlife habitat.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Wetland is easily accessed.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Low noise level at primary viewing locations.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Unpleasant odors absent at primary viewing locations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Relatively unobstructed sight line exists through wetland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: public access restricted			

ENDANGERED SPECIES HABITAT VALUE

CONSIDERATIONS/QUALIFIERS	Y	N	Principal
1. Wetland contains or is known to contain threatened or endangered species.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Wetland contains critical habitat for a state or federally listed threatened or endangered species.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments: CTDEEP confirmed no rare species or critical habitat exists at site			



Photo 1: View of the existing maintenance road/proposed AT&T access road entrance off Route 7, looking east.



Photo 2: View of the proposed AT&T facility location within a wooded area, looking northwest. Existing maintenance road/proposed AT&T access road in foreground of photo.



Photo 3: View of existing maintenance road along north side of Cedar Hill Pond Dam in background/left side of photo, looking southwest. Route 7 in background/right side of photo.



Photo 4: View of Housatonic River diversion channel north of Cedar Hill Pond adjacent to the maintenance road, looking north/northwest.



Photo 5: View of Cedar Hill Pond north bank near turn in proposed access drive to AT&T facility, looking southeast.



Photo 6: View of Cedar Hill Pond north bank near turn in proposed access drive to AT&T facility, looking west.