

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:

APPLICATION OF AMERICAN TOWER CORPORATION (ATC)
AND 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 AT 701 LYDALL STREET MANCHESTER,
CONNECTICUT

DOCKET NO. 453

December 29, 2014

AMERICAN TOWER CORPORATION (ATC) and
NEW CINGULAR WIRELESS PCS LLC (AT&T)
SUPPLEMENTAL SUBMISSION

The Applicants, American Tower Corporation (ATC) and New Cingular Wireless PCS LLC (AT&T), respectfully submit the enclosed Vernal Pool Evaluation dated December 20, 2014. The enclosed evaluation concludes that the proposed Facility will not result in adverse impacts to the vernal pool provided that the seasonal restriction and vernal pool protection plan are implemented during construction activities. Please be advised that the Applicants will implement the seasonal restriction and vernal pool protection plan detailed in the enclosed evaluation.

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: December 29, 2014

A handwritten signature in cursive script that reads "Lucia Chiochio". The signature is written in black ink and is positioned above a horizontal line.

Lucia Chiochio

cc: Blake Paynter, ATC
Michele Briggs, ATC
Jennifer Young Gaudet, HPC Wireless
Dean Gustafson, APT
Scott Chasse, APT



VERNAL POOL EVALUATION

December 20, 2014

**HPC Wireless Services, LLC
22 Shelter Rock Lane
Building C
Danbury, CT 06810**

APT Project No.: CT255ATC112

**Re: Proposed Manchester Risley Facility
701 Lydall Street
Manchester, Connecticut**

All-Points Technology Corporation, P.C. ("APT") understands that a wireless telecommunications facility ("Facility") is proposed by American Tower Corp. ("ATC") at 701 Lydall Street in Manchester, Connecticut ("Subject Property"). As proposed, the Facility would consist of a 104-foot tall monopole, antenna arrays and ground-mounted equipment shelter located within a 50-foot by 50-foot fenced compound, as well as an approximately 1,634-foot long by 20-foot wide access/utility easement. At your request, APT has completed an assessment of impacts to vernal pool habitat located on the Subject Property which may be affected by proposed construction of the Facility. This evaluation is based on APT's review of site plans prepared by APT, revision date 05/13/14, and our wetland delineation (as detailed in APT's Wetland Investigation report, dated July 3, 2014, provided previously under separate cover). The findings of this assessment are presented below.

Site and Project Description

The Subject Property consists of an approximately 64-acre parcel partially cleared for agriculture. The area proposed for the wireless communications Facility is located in the northwest corner of a mowed grass area adjacent to a mature upland forest. Access to the Facility would initially follow an existing dirt road originating off Lydall Street, through a maintained hay field (adjacent to the woods line) and continue over a new, 12-foot wide, gravel based drive. Utilities would extend underground along the access drive for a total length of approximately 1,600 feet. The Study Area is dominated by maintained agricultural hay fields, complexes of upland and wetland forested blocks, and a small quarry operation. The surrounding land-use consists primarily of residential development.

One wetland area was delineated within the Study Area consisting of a broad forested hummock/hollow swamp that transitions to an artificially created open water pond containing interior 'cryptic' style vernal pool habitat. From there, the wetland system outlets to a well confined intermittent stream system before flowing under Lydall Street. Please refer to the enclosed Vernal Pool Analysis Map for the approximate location of the identified wetland and vernal pool resource areas.

Vernal Pool Analysis

Located interior to Wetland 1 are interspersed depression areas containing sufficient hydrology to support vernal pool breeding habitat, separated by upland hummocks ("Vernal Pool"). As such, the Vernal Pool is classified as 'cryptic' style vernal pool habitat. The vernal pool habitat exhibited significant attachment sites for breeding

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herpetofauna. During the site investigation, a visual survey was performed of the forested perimeter resulting in observation of one adult (1) wood frog (*Rana sylvatica*) chorusing (chorusing wood frogs were also heard throughout the wetland resource in significantly greater numbers). It is anticipated that significant numbers of wood frog egg masses, as well as potentially spotted salamander (*Ambystoma maculatum*) egg masses, would be located within the interior of the vernal pool habitat. The interior of this wetland system was inaccessible due to the density of the shrub understory and depth of inundation and underlying mucky soils. The terrestrial habitat immediately surrounding the vernal pool habitat contains a good amount of coarse woody debris and duff layer providing good cover habitat for herpetofauna within forested areas to the north, east, and south. Maintained hayfields to the west provide limited cover for migrating herpetofauna.

Physical Impact to Vernal Pool and Surrounding Terrestrial Habitat

This section details a recognized scientific method for analyzing the potential impact a project may have on a particular vernal pool and its surrounding upland (terrestrial) habitat.

Construction and operation of the Facility would not result in direct physical impact to the identified vernal pool habitat. In fact, the proposed Facility is located more than 350 feet from the nearest vernal pool habitat. It is widely documented that vernal pool dependent amphibians are not only solely dependent upon the actual vernal pool habitat for breeding and egg and juvenile development, but require surrounding terrestrial habitat for most of their adult lives. Recent studies recommend protection of adjacent habitat up to 750 feet from the vernal pool edge for obligate pool-breeding amphibians.¹ Since the vernal pool habitat occurs in the vicinity of the proposed Facility, an evaluation of potential impacts the proposed project may have on this special aquatic habitat was performed.

In order to evaluate potential impacts to the vernal pool habitat, and their surrounding terrestrial habitats, the resources were assessed using methodology developed by Calhoun and Klemens (2002). This methodology assesses vernal pool ecological significance based on two parameters: 1) biological value of the vernal pool, and 2) conditions of the critical terrestrial habitat. The biological rating is based on the presence of federal or state-listed species and abundance and diversity of vernal pool indicator species. (Note: based on the observations collected to date of this vernal pool, the highest biological value is assumed to be supported.) The terrestrial habitat is assessed based on the integrity of the vernal pool envelope ("VPE"; within 100 feet of the pool's edge) and the critical terrestrial habitat ("CTH"; within 100 feet to 750 feet of the pool's edge). A priority rating of Tier I was assigned to the vernal pool habitat, with Tier I considered to have relatively high breeding activity and relatively intact terrestrial habitat² (Tier II and III pools represent lower amphibian productivity and fragmented terrestrial habitat). Pools with 25% or less developed areas in the critical terrestrial habitat are identified as having high priority for maintaining less than 25% development within this terrestrial habitat, including site clearing, grading and construction³.

The vernal pool evaluated in this assessment was rated based on these criteria for both the existing condition and the proposed development to determine if the compound, access, and associated grading disturbances would result in a reduction in the tier rating system, or reduce the terrestrial habitat integrity below the critical 75% non-development criterion. As previously discussed, it was conservatively assumed that the vernal pool habitat currently has the highest conservation priority rating of Tier I. The results of this analysis reveal that the pre-development condition does not exceed the 25% developed threshold for the Vernal Pool 1 (23.55%) and therefore the relative ecological value of this vernal pool habitat has not yet been compromised. The results of this analysis support that the proposed development will not result in further degradation of the existing tier rating or terrestrial habitat integrity of vernal pool habitat due to the small amount of disturbance associated with the proposed facility (approximately 0.7 acre, ±0.23 acre consists of existing developed dirt drive).

1 Calhoun, A.J.K. and M.W. Klemens. 2002. Best Development Practices (BDPs): Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States. WCS/MCA Technical Paper No. 5.

2 Vernal Pool Assessment Sheet (source: Calhoun and Klemens 2002)

Under existing conditions, one of the management goals for the VPE noted by Calhoun and Klemens (2002) is not being met: “Maintain an undeveloped forested habitat around the [vernal] pool [envelope], including both canopy and understory (e.g., shrubs and herbaceous vegetation).” The current condition of the VPE where the access drive is proposed consists of either an existing dirt drive or maintained hayfield, which does not support forested habitat. Therefore, the VPE will be marginally impacted by the proposed Facility development (grading and temporary trenching associated with the access road and utility route), even though it is located approximately 30 feet west of the closest vernal pool edge. Alternate access routes possibly considered to avoid or minimize encroachment into the VPE would require clearing of mature forest habitat within the pool’s CTH resulting in increased habitat fragmentation, reduced habitat permeability and degradation of the CTH.

The total area of the CTH associated with the vernal pool, which includes land located off the Subject Property, is 63.7± acres with 15± acres consisting of existing development (primarily associated with residential development and a small quarry operation). This equates to approximately 23.55% of the CTH as being already developed. The proposed Facility compound and a majority of the proposed access route would be located within the CTH, resulting in development of 0.31± acre, which represents an increase of only 0.48% of the total CTH. As a result of design efforts to avoid and minimize impact to Subject Property wetlands and vernal pool, the majority of the access drive would be located within an existing maintained dirt access road with the balance located within a regularly mowed hayfield. Therefore, the proposed ATC development represents a de minimis increase in development of the vernal pool’s critical terrestrial habitat and does not result in the tipping point of reduction below the 75% non-development criterion³. Similarly, the proposed development will not result in a likely adverse impact to existing amphibian productivity and will not result in long-term adverse impact to the terrestrial habitat of the vernal pool, considering the relatively small area of development associated with the Facility, limited traffic it will generate, and low post-construction level of disturbance that does not exceed the 25% development threshold for conservation priority.

However, the potential exists for possible short-term impact to herpetofauna associated with the nearby vernal pool habitat due to possible encounters with migrating and basking individuals that may intercept the proposed development footprint during construction. This is particularly true for the central portion of the proposed access drive, which would be located between forested terrestrial habitat and the vernal pool. Best Development Practices (“BDPs”; Calhoun and Klemens, 2002) are proposed during construction in a subsequent section of this document to avoid/minimize the potential for short-term impact to herpetofauna.

Hydraulic Alterations

Land-use changes (i.e., clearing, increases in impervious surface) can increase surface runoff in the watershed of a vernal pool. Direct inputs of stormwater flows into a pool may produce sudden water level increases in a short period of time and may lengthen the duration of flooding (hydroperiod). Diversion of stormwater flows past a pool may have the opposite effect of decreasing water levels and shortening the pool’s hydroperiod. In addition, stormwater features that create temporary pools of water can result in a biological “sink” as breeding amphibians deposit eggs into a water body without the necessary hydraulic period to allow for successful development of the eggs into juveniles.

Site clearing and grading activities will not de-water the nearby vernal pool, or alter surface water drainage patterns associated with this pool. Impervious surfaces associated with the proposed ATC project have been minimized with the use of a gravel surface for development of the Facility compound and access. The proposed development will not alter existing surface or subsurface flow conditions or directions. Therefore, the proposed development will not

³This threshold is generally used for prioritizing vernal pool conservation efforts: Calhoun, A.J.K. and M.W. Klemens. 2002. Best Development Practices (BDPs): Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States. WCS/MCA Technical Paper No. 5. Pg. 10.

alter the hydrology of the nearby vernal pool. In addition, no stormwater management features are proposed that would result in creation of a temporary pool and “sink”, including a French mattress, which could potentially affect breeding amphibians intercepted on their migration to the nearby vernal pool.

Vernal Pool Recommended Best Development Practices

Seasonal Restriction Seasonal restriction of construction activities during the peak amphibian migration period (March 1st to May 15th) is recommended to avoid impacting adult amphibians potentially migrating from the forested terrestrial habitat located in the western portion of the Subject Property to the vernal pool habitat for breeding and then subsequent dispersal back into the terrestrial habitat.

Due to the proposed development’s location in the vicinity of vernal pool habitat and at the edge of suitable terrestrial habitat, the following vernal pool protection plan is recommended to avoid unintentional impact or mortality to vernal pool herpetofauna (i.e., spotted salamander, wood frog, turtles, etc.) during construction activities that would occur from May 16th to September 15th, outside the peak amphibian movement period. Details of the recommended protection plan are provided below.

Vernal Pool Protection Plan A qualified professional from APT would serve as the Environmental Monitor for this project to ensure that vernal pool protection measures are implemented properly. The proposed vernal pool protection program consists of several components including: isolation of the project perimeter; periodic inspection and maintenance of isolation structures; herpetofauna sweeps; education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; and, reporting.

1. Erosion and Sedimentation Controls

- a. Plastic netting used in a variety of erosion control products (i.e., erosion control blankets, fiber rolls [wattles], reinforced silt fence) has been found to entangle wildlife, including reptiles, amphibians, birds and small mammals. No permanent erosion control products or reinforced silt fence will be used on the project. Temporary erosion control products that will be exposed at the ground surface represent a potential for wildlife entanglement will use either erosion control blankets and fiber rolls composed of processed fibers mechanically bound together to form a continuous matrix (netless) or netting composed of planar woven natural biodegradable fiber to avoid/minimize wildlife entanglement.
- b. Installation of erosion and sedimentation controls, required for erosion control compliance and creation of a barrier to possible migrating/dispersing herpetofauna, shall be performed by the Contractor following clearing activities and prior to any earthwork. The Environmental Monitor will inspect the work zone area prior to and following erosion control barrier installation to ensure the area is free of herpetofauna and satisfactorily installed. The intent of the barrier is to segregate the majority of the work zone from migrating/dispersing herpetofauna. Oftentimes complete isolation of a work zone is not feasible due to accessibility needs and locations of staging/material storage areas, etc. In those circumstances, the barriers will be positioned to deflect migrating/dispersal routes away from the work zone to minimize potential encounters with herpetofauna.
- c. The barrier fencing will consist of non-reinforced conventional erosion control woven fabric, installed approximately six inches below surface grade and staked at seven to ten-foot intervals using four-foot oak stakes or approved equivalent. In addition to required daily inspection by the Contractor, the fencing will be periodically inspected by the Environmental Monitor for tears or breeches in the fabric following installation and throughout the course of the construction project.

- d. The extent of the barrier fencing will be as shown on the site plans. The Contractor shall have additional barrier fencing should field conditions warrant extending the fencing as directed by the Environmental Monitor.
- e. No equipment, vehicles or construction materials shall be stored outside of barrier fencing.
- f. All silt fencing shall be removed within 30 days of completion of work and permanent stabilization of site soils so that reptile and amphibian movement between uplands and wetlands is not restricted. If fiber rolls/wattles, straw bales, or other natural material erosion control products are used, such devices will not be left in place to biodegrade and shall be promptly removed after soils are stable so as not to create a barrier to migrating wildlife. Seed from seeding of soils should not spread over fiber rolls/wattles as it makes them harder to remove once soils are stabilized by vegetation.

2. Contractor Education:

- a. Prior to work on site and initial deployment/mobilization of equipment and materials, the Contractor shall attend an educational session at the pre-construction meeting with the Environmental Monitor. This orientation and educational session will consist of information such as, but not limited to: representative photographs of typical herpetofauna that may be encountered, typical species behavior, and proper procedures if species are encountered. The meeting will further emphasize the non-aggressive nature of these species, the absence of need to destroy such animals and the need to follow Protective Measures as described in Section 4 below. The Contractor will designate one of its workers as the "Project Monitor", who will receive more intense training on the identification and protection of herpetofauna.
- b. The Contractor will designate a member of its crew as the Project Monitor to be responsible for the periodic "sweeps" for herpetofauna within the construction zone each morning. This individual will receive more intense training from the Environmental Monitor on the identification and protection of herpetofauna in order to perform sweeps. Any herpetofauna discovered would be carefully translocated outside the work zone in the general direction the animal was oriented.
- c. The Contractor's Project Monitor will be provided with cell phone and email contacts for APT personnel to immediately report any encounters with herpetofauna. Educational poster materials will be provided by the Environmental Monitor and displayed on the job site to maintain worker awareness as the project progresses.
- d. The Environmental Monitor will also post Caution Signs throughout the project site for the duration of the construction project providing notice of the environmentally sensitive nature of the work area, the potential for encountering various amphibians and reptiles and precautions to be taken to avoid injury to or mortality of these animals.

3. Petroleum Materials Storage and Spill Prevention

- a. Certain precautions are necessary to store petroleum materials, refuel and contain and properly clean up any inadvertent fuel or petroleum (i.e., oil, hydraulic fluid, etc.) spill due to the project's location in proximity to sensitive wetlands.
- b. A spill containment kit consisting of a sufficient supply of absorbent pads and absorbent material will be maintained by the Contractor at the construction site

throughout the duration of the project. In addition, a waste drum will be kept on site to contain any used absorbent pads/material for proper and timely disposal off site in accordance with applicable local, state and federal laws.

- c. The following petroleum and hazardous materials storage and refueling restrictions and spill response procedures will be adhered to by the Contractor.
 - i. Petroleum and Hazardous Materials Storage and Refueling
 - 1. Refueling of vehicles or machinery shall occur a minimum of 100 feet from wetlands or watercourses and shall take place on an impervious pad with secondary containment designed to contain fuels.
 - 2. Any fuel or hazardous materials that must be kept on site shall be stored on an impervious surface utilizing secondary containment a minimum of 100 feet from wetlands or watercourses.
 - ii. Initial Spill Response Procedures
 - 1. Stop operations and shut off equipment.
 - 2. Remove any sources of spark or flame.
 - 3. Contain the source of the spill.
 - 4. Determine the approximate volume of the spill.
 - 5. Identify the location of natural flow paths to prevent the release of the spill to sensitive nearby waterways or wetlands.
 - 6. Ensure that fellow workers are notified of the spill.
 - iii. Spill Clean Up & Containment
 - 1. Obtain spill response materials from the on-site spill response kit. Place absorbent materials directly on the release area.
 - 2. Limit the spread of the spill by placing absorbent materials around the perimeter of the spill.
 - 3. Isolate and eliminate the spill source.
 - 4. Contact the appropriate local, state and/or federal agencies, as necessary.
 - 5. Contact a disposal company to properly dispose of contaminated materials.
 - iv. Reporting
 - 1. Complete an incident report.
 - 2. Submit a completed incident report to the Connecticut Siting Council.

4. Protective Measures

- a. A thorough cover search of the construction area will be performed by the Environmental Monitor for herpetofauna prior to and following installation of the silt fencing barrier to remove any species from the work zone prior to the initiation of construction activities. The Environmental Monitor will also sweep the existing paved access drive in advance of the Contractor's initial mobilization of equipment and materials to the Subject Property. Any herpetofauna discovered would be carefully translocated outside the work zone in the general direction the animal was oriented. Periodic inspections will be performed by the Environmental Monitor throughout the duration of the construction.
- b. Any stormwater management features, ruts or artificial depressions that could hold water created intentionally or unintentionally by site clearing/construction activities will be properly filled in and permanently stabilized with vegetation to avoid the creation of vernal pool "decoy pools" that could intercept amphibians moving toward the vernal pools. Stormwater management features such as level spreaders will be carefully reviewed in the field to ensure that standing water does not endure for more than a 24 hour period to avoid creation of decoy pools and may be subject to field design changes. Any such proposed design changes will be reviewed by the design engineer to ensure stormwater management functions are maintained.

- c. Erosion control measures will be removed no later than 30 days following final site stabilization so as not to impede migration of herpetofauna or other wildlife.

5. Herbicide and Pesticide Restrictions

- a. ATC and its contractors will avoid the use of herbicides and pesticides at the proposed wireless telecommunications Facility.

6. Reporting

- a. Following completion of the construction project, APT will provide a summary report to Connecticut Siting Council for compliance verification documenting any observations of herpetofauna and the monitoring and maintenance of the barrier fence and erosion control measures.

Provided the seasonal restriction is adhered to and the vernal pool protection plan implemented during construction activities, it is APT's opinion the proposed ATC development will not result in a likely adverse impact to nearby vernal pool resources. If you have any questions regarding the above-referenced information, please feel free to contact me by telephone at (860) 663-1697 ext. 201 or via email at dgustafson@allpointstech.com.

Sincerely,

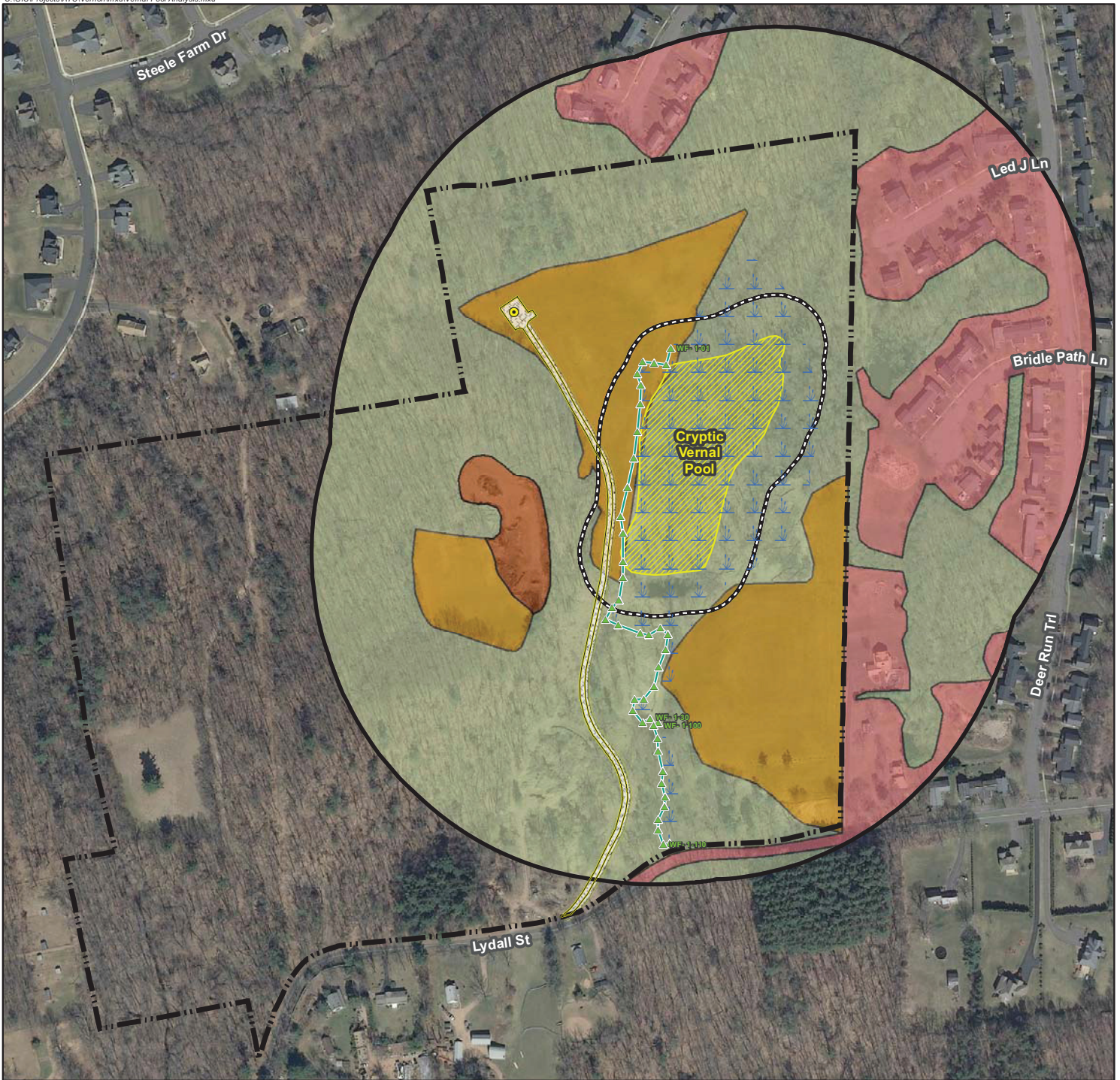
All-Points Technology Corporation, P.C.



Dean Gustafson
Senior Wetland Scientist

Enclosures

Vernal Pool Analysis Map



100' Cryptic Vernal Pool Envelope: ±7.5 acres

Existing Vernal Pool Envelope Area:		
Undeveloped	±7.5 acres	100.00%

Proposed Vernal Pool Envelope Area:		
Developed	±0.16 acres	2.13%
Undeveloped	±7.34 acres	97.87%

100'-750' Critical Terrestrial Habitat Area: ±63.70 acres

Existing Critical Terrestrial Habitat Areas:		
Developed	±15 acres	23.55%
Undeveloped	±48.7 acres	76.45%

Proposed Critical Terrestrial Habitat Areas:		
Developed	±15.31 acres	24.03%
Undeveloped	±48.39 acres	75.97%

Proposed Limits of Grading within Critical Terrestrial Habitat Area : ±0.70 acres

Critical Terrestrial Habitat Impact Areas:		
Developed	±0.23 acres	33%
Undeveloped	±0.47 acres	67%

Number of trees to be removed: 0

Legend

- Proposed Tower Location
- Proposed Facility Layout
- Proposed Disturbance Limits
- Approximate Subject Parcel Boundary
- Cryptic Vernal Pool
- 100' Vernal Pool Envelope
- 100'-750' Critical Terrestrial Habitat Area
- Critical Terrestrial Habitat**
- Developed
 - Small Quarry Operation
 - Developed
- Undeveloped
 - Hayfield
 - Forested
- Wetland Flag
- Delineated Wetland Boundary
- Wetland Area



Vernal Pool Analysis

Proposed Wireless Telecommunications Facility
Manchester Risley
701 Lydall Street
Manchester, Connecticut

