

## Appendix B



January 21, 2013

Mr. Virgil Lee Andrews, Jr.  
Field Office Supervisor  
U.S. Department of Interior  
Fish and Wildlife Service  
J.C. Watts Federal Building  
330 West Broadway, Suite 265  
Frankfort, KY 40601

**RE: The Chemical Stockpile Emergency Preparedness Program for Powell  
County, KY: Hinkle Tower Site**

Dear Mr. Andrews:

As part of the environmental review requirements pursuant to The Chemical Stockpile Emergency Preparedness Program funding for a new 160 to 190-foot communication tower in Powell County, I am asking that you review and provide comments on the site location especially in regard to migratory birds. The tower is designed as a free standing pad and pier lattice type and will contain radio frequency antennas and micro wave dishes. The tower site is located off Chop Chestnut Road on the Natural Bridge Stone Rock Quarry property owned by Hinkle Construction Corporation. The attached map shows the location of the proposed tower site. The coordinates are 37° 48' 33.2" N and 83° 46' 47.34" W. The land elevation at the site is 1,316 feet.

I would appreciate a response as soon as possible due to the funding guidelines. Should you have any questions concerning this project location, please do not hesitate to contact me at 859-421-5060 or email me at lcarolan@palmernet.com.

Sincerely,

A handwritten signature in black ink that reads 'Lee E. Carolan' with a long horizontal flourish extending to the right.

**Lee E. Carolan**  
10824.00



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Kentucky Ecological Services Field Office  
330 West Broadway, Suite 265  
Frankfort, Kentucky 40601  
(502) 695-0468

February 8, 2013

Lee E. Carolan  
Palmer Engineering

Re: FWS 2013-B-0197; Palmer Engineering; Chemical Stockpile Emergency Preparedness Program; Hinkle Tower site; located in Powell County, Kentucky

Dear Ms. Carolan:

Thank you for the opportunity to provide comments on the above-referenced project. The U.S. Fish and Wildlife Service (Service) has reviewed this proposed project and offers the following comments in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) and the Migratory Bird Treaty Act (MBTA) (40 Stat. 775, as amended; 16 U.S.C. 703 *et seq.*). This is not a concurrence letter. Please read carefully, as further consultation with the Service may be required.

In order to assist you in determining if the proposed project has the potential to impact protected species we have searched our records for occurrences of listed species within the vicinity of the proposed project. Based upon the information provided to us and according to our databases, we believe that the following federally listed species have the potential to occur within the project vicinity. The listed species are:

Group	Species	Common name	Legal* Status
Mammals	<i>Myotis sodalis</i>	Indiana bat	E
	<i>Corynorhinus townsendii virginianus</i>	Virginia big-eared bat	E
	<i>Myotis grisescens</i>	gray bat	E

\* Key to notations: E = Endangered, T = Threatened, C = Candidate, CH = Critical Habitat

We must advise you that collection records available to the Service may not be all-inclusive. Our database is a compilation of collection records made available by various individuals and resource agencies. This information is seldom based on comprehensive surveys of all potential habitats and thus does not necessarily provide conclusive evidence that protected species are present or absent at a specific locality.

### Indiana bat

Based on your correspondence, summer habitat for the federally endangered Indiana bat may occur within the project area. Furthermore, the proposed project is within the swarming range of

several documented Indiana bat hibernacula. Prior to hibernation, Indiana bats utilize the forest habitat around the hibernacula, where they feed and roost until temperatures drop to a point that forces them into hibernation. This "fall swarming" period lasts, depending on weather conditions in a particular year, from about August 16 to about November 15. This is a critical time for Indiana bats, since they are acquiring additional fat reserves and mating prior to hibernation. Another critical time for Indiana bats utilizing this swarming range is during spring emergence (~April 1 - ~May 14) from the hibernacula. During this time, bats utilize the swarming range to forage prior to migrating to their respective summering areas. It should also be noted that some bats may continue to utilize this swarming area year round; however, these are typically adult males. Typically for a project of this nature, the Service would recommend seasonal tree clearing or the completion of a mist net survey before construction activities take place. Mist net surveys provide presence/absence information; however, we already know that the Indiana bats are present and that the project area falls within the swarming range of several known hibernacula. We do not believe a survey is necessary for the proposed project. Also, seasonal tree clearing could result in indirect and/or cumulative effects to the bats utilizing this hibernacula and associated swarming ranges through changes to the landscape and the removal of potential foraging and roosting habitat while the bats are hibernating.

In order to address the concerns regarding Indiana bat roosting and foraging habitat within the known Indiana bat swarming area and to be in compliance with the ESA, we recommend one of the following options:

- The project proponent can design or modify the proposed project to eliminate impacts to Indiana bat roosting and foraging (forested) habitat and thus avoid impacts.
- The project proponent can request formal section 7 consultation through the lead Federal Action Agency associated with the proposed project.
- The project proponent can submit an indirect and cumulative effects analysis conducted by a qualified biologist. This analysis assesses the quantity and quality of the suitable habitat within the project area and area surrounding the project area to determine the effects of the habitat removal.
- The project proponent may choose to enter into a Conservation Memorandum of Agreement (MOA) with the Service to account for the incidental take of Indiana bats. By entering into a Conservation MOA with the Service, Cooperators gain flexibility in project timing with regard to the removal of suitable Indiana bat habitat. In exchange for this flexibility, the Cooperator provides recovery-focused conservation benefits to the Indiana bat through the implementation of minimization and mitigation measures that are described in the Indiana Bat Mitigation Guidance for the Commonwealth of Kentucky. For additional information about this option, please notify our office.

Additionally, based on the presence of numerous caves, rock shelters, and underground mines in Kentucky, we believe that it is reasonable to assume that other caves, rock shelters, and/or abandoned underground mines may occur within the project area, and, if they occur, they could provide winter habitat for Indiana bats. Therefore, we would recommend that the project

proponent survey the project area for caves, rock shelters, and underground mines, identify any such habitats that may exist on-site, and avoid impacts to those sites pending an analysis of their suitability as Indiana bat habitat by this office.

#### **Virginia big-eared bat & gray bat**

The site is also in close proximity to several documented occurrences of the federally endangered Virginian big-eared bat and is in an area that is potential habitat for the gray bat. Virginia big-eared bats and gray bats live in caves year-round. Because the site is primarily forested and occurs within a known karst region, the Service has reason to believe that suitable summer roosting and winter hibernacula habitat for the Virginia big-eared bat and gray bat could occur onsite.

Therefore, we request that the project proponent survey the area for any caves, rockshelters, and/or abandoned mines, and, if present, have a qualified biologist assess their potential as Virginia big-eared bat and gray bat summer/winter habitat. This assessment should be separate from the Indiana bat assessment. If potential summer/winter habitat is identified, additional surveys of these areas may be required. Impacts to these areas should be avoided until the surveys are completed and the presence/absence of Virginia big-eared bats within these areas has been determined. Please notify this office with the results of any surveys and an analysis of the “effects of the action,” as defined by 50 CFR 402.02 on this listed species including consideration of direct, indirect, and cumulative effects.

#### **Migratory Bird Treaty Act comments**

The Service is extremely concerned with the proliferation of communication towers. Recent estimates indicate that more than 4-5 million birds are killed yearly as a result of collisions with communication towers. Night migrating birds, such as warblers, migrate over a broad geographical range and most research indicates that they usually fly at least 500 feet above ground level during migration. However, under certain adverse weather conditions, birds often fly at much lower levels and can collide into buildings, water tanks, cellular towers, and other structures within the flight path. Cellular towers, especially those constructed with guy wires and equipped with continuous red lights, are more likely to result in bird mortality than other tower designs or strategies that do not require the use of guy wires (*i.e.*, self-supporting, monopole, or co-location of antenna). Preliminary research indicates that red lights may attract birds to cellular towers during inclement weather.

Because we have concerns regarding the potential impacts of communication towers and migratory birds, we offer the following recommendations regarding tower lighting and design:

- Build the structure less than 200 feet above ground level, thus avoiding requirements for tower lighting;
- Build the structure without guy wires;
- Use red or white (preferably) strobe lights instead of flashing lights;
- Avoid the use of solid red or pulsating red warning lights at night;
- Use the minimum amount of lighting, the minimum intensity of lighting, and the minimum number of strobe flash duration under Federal Communication/Federal

Aviation Administration regulations;

- Minimize security lighting for on-ground facilities and ensure that such lighting points downward or is down-shielded;
- Illuminate the tower with additional daytime white strobes (in addition to the tower top) to increase daytime visibility.

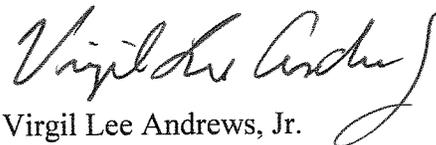
The simplest way to avoid bird deaths at towers is simply to place the tower in such a way that it decreases the number of opportunities birds would have to collide with it. We recommend:

- Collocating equipment on existing towers;
- Siting new towers within existing “antenna farms” (clusters of towers);
- Siting towers away from wetlands, other known bird concentration areas (e.g., state or federal refuges, staging areas, rookeries), or in known migratory or daily movement flyways;
- Siting towers outside area with a high incidence of fog, mist, or low ceilings;
- Constructing towers so they can accommodate possible future collocations of antennas.

Our comments are meant to inform you that potential Migratory Bird Treaty Act violations could occur if construction of the proposed communication tower results in the “take” of migratory birds.

Thank you again for your request. Your concern for the protection of endangered and threatened species is greatly appreciated. If you have any questions regarding the information that we have provided, please contact Jessi Miller at (502) 695-0468 extension 104.

Sincerely,



Virgil Lee Andrews, Jr.  
Field Supervisor



STEVEN L. BESHEAR  
GOVERNOR

**TOURISM, ARTS AND HERITAGE CABINET  
KENTUCKY HERITAGE COUNCIL**

BOB STEWART  
SECRETARY

THE STATE HISTORIC PRESERVATION OFFICE  
300 WASHINGTON STREET  
FRANKFORT, KENTUCKY 40601  
PHONE (502) 564-7005  
FAX (502) 564-5820  
[www.heritage.ky.gov](http://www.heritage.ky.gov)

CRAIG A. POTTS  
EXECUTIVE DIRECTOR AND  
STATE HISTORIC PRESERVATION OFFICER

February 28, 2014

Lee Carolan  
Palmer Engineering, Inc.  
P. O. Box 747  
Winchester, KY 40392-0747

**Re: Powell County CSEPP Tower**

Dear Ms. Carolan:

On February 26, the State Historic Preservation Office received the above referenced submission for comment. The undertaking involves construction of a 300-foot lattice tower at 7245 Campton Rd., Stanton.

While nothing has been previously identified in the  $\frac{3}{4}$ -mile APE, there is a cemetery near the project site that was documented in photographs. There is not currently enough information to assess the cemetery, but it is our assessment the tower would not result in an adverse effect to anything for which such a site might be considered eligible.

Please note, this project may be subject to both Section 106 and the Kentucky Antiquities Act. While no archaeology has been recommended at this time due to previous ground disturbance at the site, contractors installing the tower should be advised of their responsibilities related to inadvertent discovery.

The submission documents consultation with the Red River Historical Society, an organization we consider key consulting parties for any project in Powell County. They expressed no concerns over the site or any potential impacts. It is our understanding FEMA is conducting tribal consultation and will document this for their project files.

Our documentation does not include public notices or other descriptions of public involvement, but FEMA should consider documenting this for their files as well. If any concerns related to cultural resources are expressed by tribes or the public as FEMA wraps up its compliance activities for this project, the federal agency should resume consultation with our office directly. Otherwise, at this time, we do not feel any additional consultation with our office is necessary.

Page 2  
Lee Carolan  
2/28/2014

If you have questions regarding these comments, please contact Jill Howe of my staff at (502) 564-7005, extension 121.

Sincerely,



Craig Potts  
Executive Director and  
State Historic Preservation Officer

CP;jh



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Kentucky Ecological Services Field Office  
330 West Broadway, Suite 265  
Frankfort, Kentucky 40601  
(502) 695-0468

July 22, 2013

Ms. Lee E. Carolan  
Palmer Engineering  
301 East Main, Suite 900  
Lexington, KY 40507

Re: FWS 2013-B-0197; Chemical Stockpile Emergency Preparedness Program; Hinkle Tower site; located in Powell County, Kentucky

Dear Ms. Carolan:

The U.S. Fish and Wildlife Service (Service) has reviewed your correspondence regarding the above-referenced project. The Service offers the following comments in accordance with the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) and the Migratory Bird Treaty Act (MBTA) (40 Stat. 775, as amended; 16 U.S.C. 703 *et seq.*).

### **Indiana bat, Virginia big-eared bat, and gray bat**

The proposed project area is an area of known or potential occurrences of these species of bats. In a July 22, 2013 phone conversation, you stated that the proposed project area was a reclaimed rock quarry with no underground openings. Furthermore, no tree removal would be required for the proposed project. Based on this information, the proposed project would not impact habitat that corresponds with habitat required for the bat species listed above. Therefore, we believe that the proposed project is not likely to adversely affect the Indiana bat, the Virginia big-eared bat, or the gray bat.

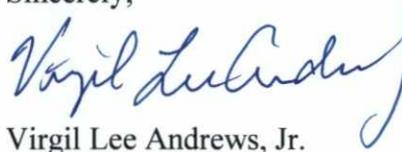
### **Federally protected bird species**

The proposed tower will be 300 feet high. In the July 22, 2013 phone conversation, you stated that the project proponent would implement the lighting recommendations that we provided in our February 8, 2013 technical assistance letter. These measures will reduce the risk of avian collisions, minimizing impacts to birds protected under the MBTA.

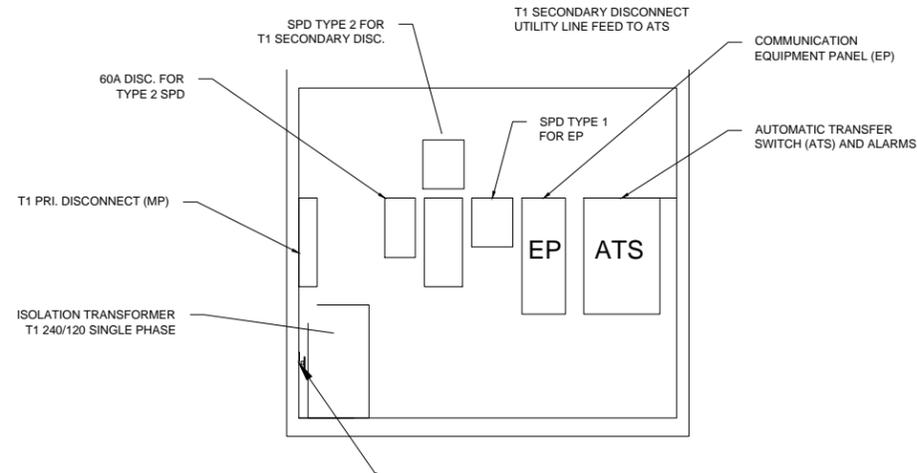
In view of these findings we believe that the requirements of section 7 of the Endangered Species Act have been fulfilled for this project. Your obligations under section 7 must be reconsidered, however, if: (1) new information reveals that the proposed action may affect listed species in a manner or to an extent not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated.

Thank you again for your request. Your concern for the protection of endangered and threatened species is greatly appreciated. If you have any questions regarding the information that we have provided, please contact Jessi Miller at (502) 695-0468 extension 104.

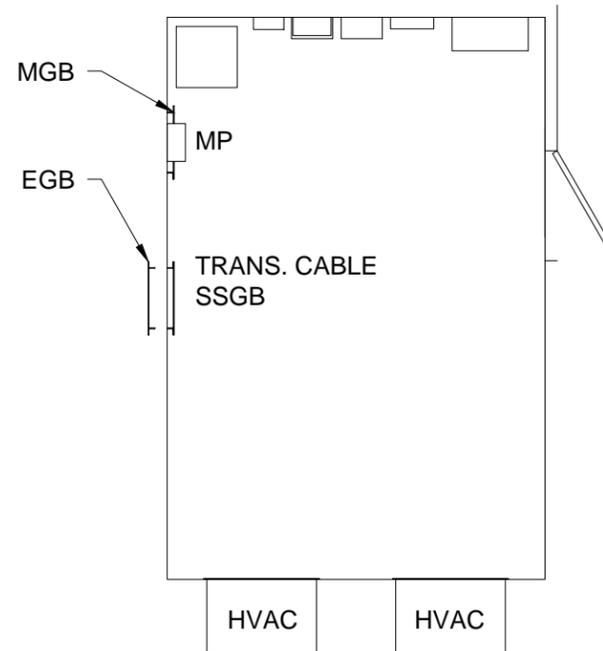
Sincerely,

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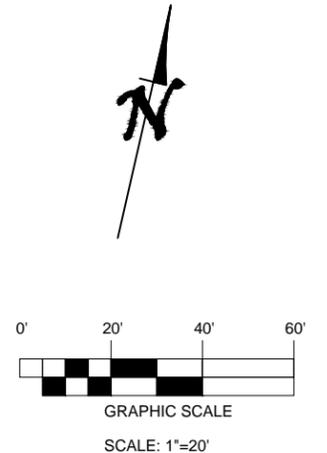
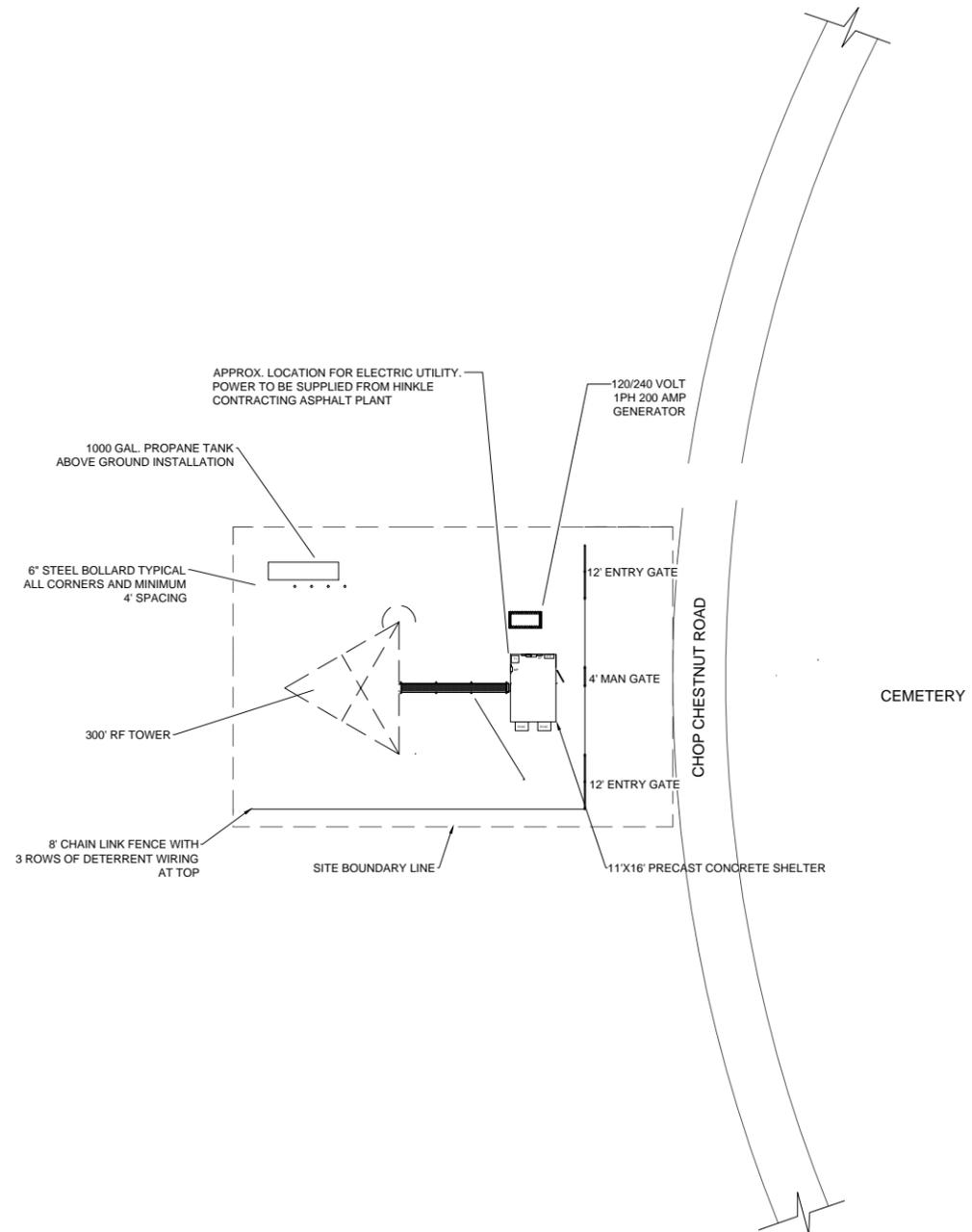
Virgil Lee Andrews, Jr.  
Field Supervisor



**ELECTRICAL DISTRIBUTION LAYOUT**  
SCALE: 1"=2.5'



**TOP VIEW ELECTRICAL DISTRIBUTION LAYOUT**  
SCALE: 1"=2.5'



MISSION CRITICAL PARTNERS  
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O:888.862.8640  
F:814.217.6807  
www.MCP911.com

**POWELL COUNTY KENTUCKY COMMUNICATIONS SUPPORT  
HINKLE TOWER SITE DEVELOPMENT**

POWELL COUNTY, KENTUCKY  
**HINKLE TOWER SITE PLAN**  
PROJECT # 12-140

REVISIONS			DRAWING TITLE
REV	DESCRIPTION	DATE	HINKLE TOWER SITE AND ELEVATION PLAN
			DRAWING NUMBER
			<b>PW06-T100</b>
			DATE: 3/17/2013
			DESIGNED BY: JPK
			DRAWN BY: JPK
			CHECKED BY: XXX



January 21, 2013

KDFWR  
Attn: Dan Stoelb, Wildlife Biologist  
1 Sportsman's Lane  
Frankfort, KY 40601

**RE: The Chemical Stockpile Emergency Preparedness Program for Powell County, KY: Hinkle Tower Site**

Dear Mr. Stoelb:

As part of the environmental review requirements pursuant to The Chemical Stockpile Emergency Preparedness Program funding for a new 160 to 190-foot communication tower in Powell County, I am asking that you review and provide comments on the site location especially in regard to migratory birds. The tower is designed as a free standing pad and pier lattice type and will contain radio frequency antennas and micro wave dishes. The tower site is located off Chop Chestnut Road on the Natural Bridge Stone Rock Quarry property owned by Hinkle Construction Corporation. The attached map shows the location of the proposed tower site. The coordinates are 37° 48' 33.2" N and 83° 46' 47.34" W. The land elevation at the site is 1,316 feet.

I would appreciate a response as soon as possible due to the funding guidelines. Should you have any questions concerning this project location, please do not hesitate to contact me at 859-421-5060 or email me at lcarolan@palmernet.com.

Sincerely,

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**Lee E. Carolan**  
10824.00



**KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES  
TOURISM, ARTS, AND HERITAGE CABINET**

**Steven L. Beshear**  
Governor

#1 Sportsman's Lane  
Frankfort, Kentucky 40601  
Phone (502) 564-3400  
1-800-858-1549  
Fax (502) 564-0506  
fw.ky.gov

**Marcheta Sparrow**  
Secretary

**Dr. Jonathan W. Gassett**  
Commissioner

28 January 2013

Lee E. Carolan  
Palmer Engineering, Inc.  
400 Shoppers Drive  
P.O. Box 747  
Winchester, KY 40392-0747

RE: The Chemical Stockpile Emergency Preparedness Program for Powell County, KY  
Hinkle Tower Site

Dear Mr. Carolan:

The Kentucky Department of Fish and Wildlife Resources (KDFWR) has received your request for information regarding the subject project. The Kentucky Fish and Wildlife Information System indicates that the federally-endangered Indiana bat (*Myotis sodalis*), Virginia Big-eared bat (*Corynorhinus townsendii virginianus*), Snuffbox (*Epioblasma triquetra*), and Fanshell (*Cyprogenia stegaria*) are known to occur within 10 miles of the project site. No state-listed species are known to occur within one mile of the proposed project. Additionally, the project falls within known swarming habitat of a P1/P2 winter hibernacula for the Indiana bat according to the U.S. Fish and Wildlife Kentucky Field Office (USFWS). If tree-cutting is required for this project, please contact the USFWS at 502-695-0468 so that proper guidance can be given on tree-cutting restrictions. Please be aware that our database system is a dynamic one that only represents our current knowledge of various species distributions.

Since this tower is less than 200 feet tall, we understand that federal laws do not require it to be lighted for aircraft safety. Night-migrating birds can be attracted to and disoriented by lights on towers, resulting in collision with the tower and oftentimes death. In order to reduce impacts to migratory birds, we recommend that this tower not have lights. If for some reason, the tower must have lights, we recommend that white strobe lights be used with the maximum permissible "off" interval (i.e., time between flashes) and solid or pulsating red warning lights be avoided. Solid or pulsating red lights attract night-migrating birds at a much higher rate than white strobe lights.

Construction techniques should be used which do not require guy wires, as these components are thought to be a primary cause of tower-related bird mortality. Alternative construction techniques include using a lattice structure or a monopole (preferred). If the tower will use guy wires for support, daytime visual markers should be installed (i.e., bird diverter devices) on the guy wires to prevent collisions by diurnally active bird species.

To minimize indirect impacts to aquatic resources, strict erosion control measures should be developed and implemented prior to any construction to minimize siltation into streams and storm water drainage systems located within the project area. Such erosion control measures may include, but are not limited to silt fences, staked straw bales, brush barriers, sediment basins, and diversion ditches. Erosion control measures will need to be installed prior to construction and should be inspected and repaired regularly as needed.

I hope this information is helpful to you, and if you have questions or require additional information, please call me at (502) 564-7109 extension 4453.

Sincerely,



Dan Stoelb  
Wildlife Biologist

Cc: Environmental Section File



## POWELL COUNTY EM / CSEPP

Danny McCormick, Director  
56 Atkinson Street  
P.O. Box 1237  
Stanton, KY 40380  
Office: (606) 663-0544  
Cell: (606) 481-9849  
Fax: (606) 663-0599  
E-mail: [pcemcsepp@gmail.com](mailto:pcemcsepp@gmail.com)



Date: March 27, 2013

To: Powell Historical Society

Powell County Fiscal Court / CSEPP have received Federal Funding to be utilized for Public Safety Radio Tower to be constructed at Hinkle – Natural Bridge Stone Mountain. Hinkle Contracting Company LLC., leased land to Powell County for this project. The lot size is 50' by 75'. The Tower will be constructed to 300' and will be use for public safety radio service (law enforcement, fire and EMS) for Powell and Estill Counties. Powel County Emergency Management would like approval from Powell County Historical Society for construction of a 300, radio tower at this site.

Thank you for your consideration,

  
Powell County EM/CSEPP Director

I, Larry S. Meadows, supervisor and agent for the Red River Historical Society do approve of this site, and what this project will do for the safety of the public.  
Red River Historical Society, P.O. Box 517, Clay City, KY 40312 by Larry S. Meadows March 27, 2013