

APPENDIX G
NATIVE AMERICAN CONSULTATION DOCUMENTATION

Talia Gilmore

From: towernotifyinfo@fcc.gov
Sent: Friday, November 18, 2011 3:01 AM
To: Talia Gilmore
Cc: kim.pristello@fcc.gov; diane.dupert@fcc.gov
Subject: NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION - Email ID #2917595

Dear Sir or Madam:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the information you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter).

Persons who have received the information that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribes"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribes and in making further contacts, the City and State of the Seat of Government for each Tribe and NHO, as well as the designated contact person, is included in the listing below. We note that Tribes may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribes and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribe or NHO. (NPA, Section IV.F.4).

The information you provided was forwarded to the following Tribes and NHOs who have set their geographic preferences on TCNS. If the information you provided relates to a proposed antenna structure in the State of Alaska, the following list also includes Tribes located in the State of Alaska that have not specified their geographic preferences. For these Tribes and NHOs, if the Tribe or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribe or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event such a Tribe or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribe or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Declaratory Ruling released on October 6, 2005 (FCC 05-176).

1. Cultural Preservation Director Tamara Francis - Delaware Nation - Anadarko, OK - regular mail

Details: The Delaware Nation located in Anadarko, Oklahoma charges a \$400 administrative fee for the review of ALL projects.

(Change Effective 6/30/2010).

Send fee payable to the Delaware Nation in the form of a check or money order.

All projects for review by the Delaware Nation must pay the \$400 fee.

Please note that the Delaware Nation and the Delaware Tribe of Indians ARE NOT the same entity.

Send all correspondence for the Delaware Nation to The Delaware Nation

ATTN: Cultural Preservation Department

31064 State Hwy 281
Anadarko, OK 73005.

2. THPO Henryetta Ellis - Absentee-Shawnee Tribe of Indians of Oklahoma - Shawnee, OK - electronic mail and regular mail

Details: If the ground of the proposed project area has been previously disturbed, or if there will be no ground disturbing activity, then we request no further project notification.

For all other proposed projects, please send a copy of the cultural resources/archeological survey for the proposed site, and the response letter from the respective SHPO. Please include the county of the proposed project location and also include the TCNS number on your correspondence to us.

For all projects, we do request to be notified upon the discovery of American Indian remains and related and/or unrelated funerary objects anywhere within the state.

If the applicant/tower builder receives no response from the Absentee-Shawnee Tribe of Indians of Oklahoma within 30 days after notification through TCNS, the Absentee-Shawnee Tribe of Indians of Oklahoma has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder, however, must immediately notify the Absentee-Shawnee Tribe of Indians of Oklahoma in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

3. Faithkeeper Anthony Gonyea - Onondaga Indian Nation - Via Nedrow, NY - electronic mail and regular mail

Details: The Onondaga Indian Nation will not be commenting on projects that involve co-location with no ground disturbance.

4. Cayuga Nation Representative Clint C Halftown - Cayuga Nation - Seneca Falls, NY - regular mail

Details: If the Applicant receives no response from the Cayuga Nation within 30 days after notification through TCNS, the Cayuga Nation has no interest in participating in pre-construction review for the site. The Applicant, however, must notify the Cayuga Nation in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

5. Chief Leo R Henry - Tuscarora Nation - Via: Lewiston, NY - regular mail

Details: If the Applicant/tower builder receives no response from the Tuscarora Nation within 30 days after notification through TCNS, the Tuscarora Nation has no interest in participating in pre-construction review for the site. The Applicant/tower builder, however, must IMMEDIATELY notify the Tuscarora Nation in the event archaeological properties or human remains are discovered during construction.

6. THPO/NAGPRA Technician Juliet K Goyen - Keweenaw Bay Indian Community - Baraga, MI - electronic mail

Details: The KBIC THPO reviews all projects within historic homelands for the presence of cultural resources with significance to the Anishinaabe. Your request will go through a preliminary review by our THPO/NAGPRA Technician, the review consists of relevant studies

submitted by the applicant regarding cultural resources documentation, in house literature search, database search and GIS search for further information. If any cultural resources are identified during this process, the file will be turned over to the Tribal Historic Preservation Officer in order to make a determination of effects.

Information required in order to complete this process are as follows:

Project Name

Project Location

Physical Address

Latitude and Longitude

State, County, Township, Range, Section quarters Brief Project Description Existing studies for archaeological sites, and cultural resources.

As of October 1, 2011, the KBIC THPO will be charging a fee of \$150.00 per review unless the review covers more than one section of land in which case the fee is \$150.00 per section. Fees in this process cover the research and other activities required to provide you with a timely response so your project can stay on track. Please submit payment of \$150.00 for each project application submitted, checks should be made payable to KBIC THPO, 16429 Beartown Road, Baraga, Michigan 49908. Any questions can be directed to Christopher J. Chosa, Tribal Historic Preservation Officer or Juliet K. Goyen, THPO/NAGPRA Technician via email: cchosa@kbic-nsn.gov, jgoyen@kbic-nsn.gov or thpo@kbic-nsn.gov or by phone: 906-353-6272 or 906-353-6278.

7. THPO/NAGPRA REP. Paul Barton - Seneca-Cayuga Tribe of Oklahoma - Grove, OK - electronic mail

Details: Thank you for contacting the Seneca-Cayuga Tribe of Oklahoma. The Seneca Cayuga Tribe is committed to protecting sites important to Tribal Heritage, Culture and Religion. Furthermore the Tribe is particularly concerned with historical sites that may contain but not limited to the burial(s) of human remains and associated funerary objects. Please note changes in our procedures. As of November 1, 2011, the Seneca Cayuga Tribe will be charging a \$150 review fee for all proposed projects with ground disturbing activities, projects as co-location sites which DO NOT require ground disturbance will be exempt from any fees. Please send a check or money order with Project Notice in the amount of \$150, made payable to Seneca-Cayuga Tribe, to the following address:

Seneca-Cayuga NAGPRA Office
c/o Paul Barton, NAGPRA Rep.
23701 South 655 Road
Grove, OK 74344

If the applicant/tower builder receives no response from the Seneca-Cayuga Tribe of Oklahoma within 30 days AFTER sending the Notice and \$150 review fee, the Seneca-Cayuga Tribe of Oklahoma has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder, however, must immediately notify the Seneca-Cayuga Tribe of Oklahoma in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

If the applicant/tower builder receives no response from the Seneca-Cayuga Tribe of Oklahoma within 30 days after notification through TCNS, the Seneca-Cayuga Tribe of Oklahoma has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder, however, must immediately notify the Seneca-Cayuga Tribe of Oklahoma in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

8. Administrative Assistant Jo Ann Beckham - Eastern Shawnee Tribe of Oklahoma - Seneca, MO - electronic mail

Details: If you, the Applicant and/or tower constructor, do not receive a response from us, the Eastern Shawnee Tribe of Oklahoma, within 30 days from the date of the TCNS notification, then you may conclude that we do not have an interest in the site. However, if archeological resources or remains are found during construction, you must immediately stop construction and notify us of your findings in accordance with the FCC's rules. (See 47 C.F.R. § 1.1312(d))

9. THPO Sherri Clemons - Wyandotte Nation - Wyandotte, OK - electronic mail and regular mail
Details: Greetings We are interested in consulting on this and all towers in our geographic areas of interest.

The Wyandotte Nation has adopted new procedures for Section 106 consultation on cell tower construction projects. These procedures are effective as of 4-20-2010 and were UPDATED ON 12-1-2010. Procedures and updates are available by e-mailing algonquin@neok.com.

With any questions, please e-mail our Cell Tower Program archaeologist at algonquin@neok.com, or call 918-541-0782 (alternate phone 918-533-2212).

Thank you.

10. THPO Kim Jumper - Shawnee Tribe - Miami, OK - regular mail

Details: THIS IS YOUR OFFICIAL NOTICE THAT THE SHAWNEE TRIBE IS INTERESTED IN CONSULTING ON ALL PROJECTS BUILT IN OUR AREAS OF GEOGRAPHIC INTEREST.

ATTENTION, NEW INFORMATION: Our procedures were updated on 14 January 2008. Please call Kim Jumper, THPO, at 918-542-2441, so that she can send you a copy.

If your tower is a co-location, please fax us this information to let us know. We cannot always tell from the TCNS web site that a tower is a co-location. We require a written response from you to let us know that it is a co-location. If a co-location project includes some new ground disturbance (such as from an expanded compound or access road, or construction of an ancillary structure), the Shawnee Tribe treats such a project the same as any other non co-location project.

Our correct mailing/physical address is: 29 South Highway 69A. Our correct phone number is (918-542-2441) and our historic preservation fax line is (918-542-9915). THPO Kim Jumper manages all cell tower consultation.

As of 26 June 2006, all of the faxed responses of our final comments on a tower site will contain an original Shawnee Tribe signature. Each final comment fax is signed individually. Copies may be compared, for authentication, against the original in our files. If a final comment fax does not contain a signature, it is not valid. ALL FINAL COMMENTS FROM THE SHAWNEE TRIBE ARE WRITTEN; FINAL COMMENTS ARE NEVER PROVIDED VERBALLY. IF THE SHAWNEE TRIBE IS CREDITED WITH HAVING GIVEN A VERBAL RESPONSE, THAT RESPONSE IS NOT VALID.

If you receive notification through the TCNS listing the Shawnee Tribe, that is an indication that the Shawnee Tribe is interested in consulting on the tower for which that notification was received. Please consider that our official indication of interest to you. The Shawnee Tribe considers the Tower Construction Notification System's weekly e-mail to be the first notification that we receive that a tower will be constructed in an area of our concern. We do not view the TCNS notification as completion of 106 consultation obligations.

The Shawnee Tribe has developed streamlined consultation procedures for cell tower developers and their subcontractors. If you do not have a copy of the procedures - most recently updated on 14 January 2008 - please contact us, as you must follow these procedures to consult with us on cell tower projects. Call us at 918-542-2441 or fax us at 918-542-9915. It is the tower builder's responsibility to make sure that you have our most recent consultation procedures.

PLEASE DO NOT SEND US INFORMATION, QUERIES, OR COMMENTS ELECTRONICALLY. SINCE 1 DECEMBER 2005, WE HAVE NOT HANDLED ANY CELL TOWER CONSULTATION, INQUIRIES, OR CORRESPONDENCE VIA E-MAIL.

11. Dr. Brice Obermeyer - Delaware Tribe of Indians of Oklahoma - Emporia, KS - electronic mail

Details: The Delaware Tribe of Indians of Oklahoma has had their federal recognition reinstated, and has been added to the listing of federally recognized Tribes maintained by the Bureau of Indian Affairs. Please refer to the Federal Register Notice dated August 11, 2009, to view the notice stating that federal relations have been reestablished with this Tribe. See 74 FR 40218 (Aug. 11, 2009).

In order to receive a formal response, please provide a consultation fee of \$200 payable to: Delaware Tribe of Indians. The fee should be included with the mailed notification packet. Notification should include a cover letter describing the project and a topographic map depicting the project's location.

The Delaware Tribe is not interested in receiving notifications for projects that do not include ground disturbance.

Thank you.

Sincerely,

Dr. Brice Obermeyer

Delaware Tribe Historic Preservation Office 1420 C of E Drive, Suite 190 Emporia, Kansas 66801

620-340-0111

bobermeyer@delawaretribe.org

The information you provided was also forwarded to the additional Tribes and NHOs listed below. These Tribes and NHOs have NOT set their geographic preferences on TCNS, and therefore they are currently receiving tower notifications for the entire United States. For these Tribes and NHOs, you are required to use reasonable and good faith efforts to determine if the Tribe or NHO may attach religious and cultural significance to historic properties that may be affected by its proposed undertaking. Such efforts may include, but are not limited to, seeking information from the relevant SHPO or THPO, Indian Tribes, state agencies, the U.S. Bureau of Indian Affairs, or, where applicable, any federal agency with land holdings within the state (NPA, Section IV.B). If after such reasonable and good faith efforts, you determine that a Tribe or NHO may attach religious and cultural significance to historic properties in the area and the Tribe or NHO does not respond to TCNS notification within a reasonable time, you should make a reasonable effort to follow up, and must seek guidance from the Commission in the event of continued non-response or in the event of a procedural or substantive disagreement. If you determine that the Tribe or NHO is unlikely to attach religious and cultural significance to historic properties within the area, you do not need to take further action unless the Tribe or NHO indicates an interest in the proposed construction or other evidence of potential interest comes to your attention.

None

The information you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA.

12. Department Head Mark J Epstein - Ohio Historic Preservation Office - Columbus, OH - electronic mail and regular mail

13. Deputy SHPO Franco Ruffini - Ohio Historic Preservation Office - Columbus, OH - electronic mail

14. SHPO Ann Safley - Pennsylvania Historical & Museum Commission Bureau for Historic Preservation - Harrisburg, PA - electronic mail

15. Deputy SHPO Susan Pierce - West Virginia Division of Culture & History, Historic Preservation Office - Charleston, WV - electronic mail

16. Department Head, Res. Protect. & Rev. Mark Epstein - Ohio Historic Preservation Office - Columbus, OH - electronic mail and regular mail

17. SHPO Barbara Franco - Pennsylvania Historical and Museum Commission - Harrisburg, PA - electronic mail

If you are proposing to construct a facility in the State of Alaska, you should contact Commission staff for guidance regarding your obligations in the event that Tribes do not respond to this notification within a reasonable time.

Please be advised that the FCC cannot guarantee that the contact(s) listed above opened and reviewed an electronic or regular mail notification. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 11/15/2011
Notification ID: 80964
Tower Owner Individual or Entity Name: The County of Berks
Consultant Name: Talia C Gilmore
Street Address: 6876 Susquehanna Trail South
City: York
State: PENNSYLVANIA

Zip Code: 17403
Phone: 717-428-0401
Email: tgilmore@ebiconsulting.com

Structure Type: UTOWER - Unguyed - Free Standing Tower
Latitude: 40 deg 31 min 52.1 sec N
Longitude: 76 deg 12 min 0.8 sec W
Location Description: 1553 State Route 183
City: Wayne Township
State: PENNSYLVANIA
County: SCHUYLKILL
Ground Elevation: 486.8 meters
Support Structure: 91.4 meters above ground level
Overall Structure: 92.7 meters above ground level
Overall Height AMSL: 579.5 meters above mean sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic mail form located on the FCC's website at:

<http://wireless.fcc.gov/outreach/notification/contact-fcc.html>.

You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). Hours are from 8 a.m. to 7:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,
Federal Communications Commission



The Delaware Nation
Cultural Preservation Office

31064 State Highway 281 ~ P.O. Box 825 ~ Anadarko, OK 73005
Phone: 405/247-2448 ~ Fax: 405/247-8905

Library ext. 1196
Museum ext. 1180
NAGPRA ext. 1182
Section 106 ext. 1180

Date: 1-10-12

Company: EBC Consulting

TCNS#/County/State: 80964, Schuylkill Co, PA
80970, Berks Co, PA

To Whom It May Concern:

The Delaware Nation received a letter regarding the above referenced project(s). The Delaware Nation is committed to protecting sites important to tribal heritage, culture and religion. Furthermore, the tribe is particularly concerned with archaeological sites that may contain human burials, remains, and associated funerary objects.

As described in your correspondence and upon research of our database(s) and files, we find the Lenape people occupied these areas either historically or prehistorically. However, location of the project does not endanger known sites of interest to the Delaware Nation. Please continue with the project as planned. However, should this project inadvertently uncover an archaeological site or object(s) we request that you immediately contact the appropriate state agencies, as well as the Delaware Nation (within 24 hours). Also, we ask that you halt all construction and ground disturbing activities until the tribe and these state agencies are consulted.

Please note the Delaware Nation, the Delaware Tribe of Indians, and the Stockbridge Munsee Band of Mohican Indians are the only Federally Recognized Delaware/Lenape entities in the United States and consultation must be made only with designated staff of these three tribes. We appreciate your cooperation in contacting the Delaware Nation. Should you have questions, feel free to contact our offices at 405/247-8903 or by email: tfrancis@delawarenation.com.

Sincerely,

Tamara Francis
Cultural Preservation Director
The Delaware Nation

Talia Gilmore

From: Talia Gilmore
Sent: Monday, January 09, 2012 3:37 PM
To: 'Jason Ross'
Subject: Checking on some projects

Hi Jason,

I have a few sites that should be hitting the 30-day this week or weekend.

TCNS Number	EBI Project Number	City, County, State	TCNS Date	Follow up Date(s)
80964	61114599	Wayne Township, Schuylkill, PA	November 18, 2011	December 8, 2011
80968	61114600	Longswamp Township, Berks, PA	November 18, 2011	December 14, 2011
80970	61114601	Union Township, Berks, PA	November 18, 2011	December 6, 2011
81118	61111527	New Hempstead, Rockland, NY	November 25, 2011	December 8, 2011
81119	61111528	Hillburn, Rockland, NY	November 25, 2011	December 8, 2011
81121	61114773	Reading, Berks, PA	November 25, 2011	December 14, 2011
81122	61114782	Charlottesville, Albemarle, VA	November 25, 2011	December 14, 2011
81217	61114865	Wall, Monmouth, NJ	November 29, 2011	December 12, 2011

Thanks in advance for your assistance!

Talia

Ms. Talia C. Gilmore
Project Scientist
EBI Consulting
6876 Susquehanna Trail South
York, PA 17403
Tel 717-428-0401 ext 1218
Mobile 717-542-6471
Fax 781-425-3611
tgilmore@ebiconsulting.com
www.ebiconsulting.com

Talia Gilmore

From: postmaster@ebiconsulting.com
Sent: Monday, January 09, 2012 3:37 PM
To: Talia Gilmore
Subject: Delivery Status Notification (Relay)
Attachments: ATT2392960.txt; Checking on some projects

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

JRoss@delawarenation.com

December 8, 2011

Delaware Nation
% Ms. Tamara Francis
NAGPRA / CP Director
31064 North Highway 281
Anadarko, OK 73005

RE: Invitation to Comment in Section 106 Consultation Process

TCNS Reference #: 80964 TCNS Date: November 18, 2011
Site Identifier: Exit 19 / Blue Mountain
Site Address: 1553 State Route 183
Wayne Township, PA 17972
EBI Project Number: 61114599

Project Description: New self-support tower with an overall height of 304 feet and equipment located in a proposed 100-foot by 100-foot fenced compound that will replace an existing tower and compound

Dear Ms. Francis,

The purpose of this letter is to inform you of a proposed wireless telecommunications project at the above-referenced location. EBI Consulting (EBI) has been retained to conduct a review of the proposed telecommunication facility project for compliance with the Federal Communications Commission's Nationwide Programmatic Agreement for Review Under the National Historic Preservation Act (47 CFR Part I, dated January 4, 2005).

This notification has been prepared as a follow-up to a previously sent Tower Construction Notification System (TCNS) notice (Notification ID referenced above). EBI would like to inquire if you would be interested in commenting on this proposed project.

Should you have any further questions or require additional information, please do not hesitate to contact me at the email address or telephone number provided below. Thank you for your assistance in this matter.

Respectfully submitted,



Talia C. Gilmore
Project Scientist
tgilmore@ebiconsulting.com
Tel: 717-428-0401 ext. 1218

Attachments Enclosed

From: (800) 872-4004
EBI Consulting
EBI Consulting
21 B Street

Burlington, MA 01803



J11201108051425

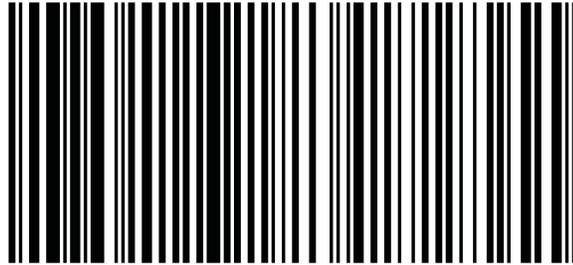
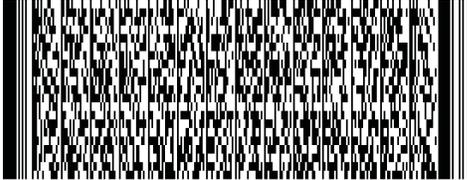
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ActWgt: 1.0 LB
CAD: 100863325/AWSX12250

Invoice #
Reference # 61114599
PO #
Dept #
Ship ID

SHIP TO: 1
Tamara Francis
Delaware Nation

31064 North Hwy 281

Anadarko, OK 73005



(9612019) 0020378 15100135

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EBI Consulting
RECORD OF COMMUNICATION

JOB: ALL

Contact Name: Ms. Henryetta Ellis Date: May 13, 2011

Contact Title: Cultural/Tribal Historic Preservation Officer Time: 9:40am

Organization: Absentee-Shawnee Tribe of Indians of Oklahoma Phone: (405) 275-4030 ext. 122

Address: 2025 S Gordon Cooper Dr. Fax: (405) 878-4711

City: Shawnee State: OK Zip Code: 74801

EBI CONTACT: RANDA C HORTON

RESULTS:

Ms. Ellis stated that their Tribe requests a follow up letter along with archaeological report and SHPO response letter on all ground disturbing projects that haven't been previously disturbed. If no response is received in 30 days of sending this material, the Absentee-Shawnee Tribe of Indians of Oklahoma has no interest in consulting. The Absentee-Shawnee Tribe would like to be notified immediately in the event archaeological or human remains are discovered during construction.

FOLLOW-UP ACTION REQUIRED:

None

April 26, 2012

Absentee-Shawnee Tribe of Indians of Oklahoma
% Ms. Henryetta Ellis
2025 South Gordon Cooper Drive
Shawnee, OK 74801
hellis@astribe.com

RE: Invitation to Comment in Section 106 Consultation Process

TCNS Reference #: 80964 TCNS Date: November 18, 2011
Site Identifier: Exit 19 / Blue Mountain
Site Address: 1553 State Route 183
Wayne Township, PA 17972
EBI Project Number: 61114599

Project Description: New self-support tower with an overall height of 304 feet and equipment located in a proposed 100-foot by 100-foot fenced compound that will replace an existing tower and compound

Dear Ms. Ellis,

The purpose of this letter is to inform you of a proposed wireless telecommunications project at the above-referenced location. EBI Consulting (EBI) has been retained to conduct a review of the proposed telecommunication facility project for compliance with the Federal Communications Commission's Nationwide Programmatic Agreement for Review Under the National Historic Preservation Act (47 CFR Part I, dated January 4, 2005).

This notification has been prepared as a follow-up to a previously sent Tower Construction Notification System (TCNS) notice (Notification ID referenced above). EBI would like to inquire if you would be interested in commenting on this proposed project.

Should you have any further questions or require additional information, please do not hesitate to contact me at the email address or telephone number provided below. Thank you for your assistance in this matter.

Respectfully submitted,



Talia C. Gilmore
Project Scientist
tgilmore@ebiconsulting.com
Tel: 717-428-0401 ext. 1218

Attachments Enclosed

From: (800) 872-4004
EBI
EBI Consulting
21 B Street

Burlington, MA 01803



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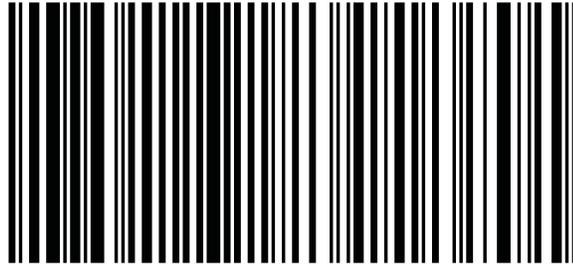
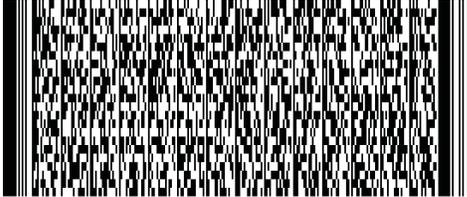
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ActWgt: 1.0 LB
CAD: 100863325/AWSX12250

Invoice #
Reference # 61114599
PO #
Dept #
Ship ID

SHIP TO: (781) 425-5116
Ms. Henryetta Ellis
Absentee-Shawnee Tribe of Indians o

2025 S. Gordon Cooper Drive

Shawnee, OK 74801



(9612019) 0020378 15177236

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**Anthony Gonyea
Onondaga Nation
Hemlock Rd. Box 319B
via Nedrow, NY 13120**

Nov. 23, 2011

**Talia C. Gilmore
6876 Susquehanna Trail South
York, PA 17403**

**RE: TCNS #/ The County of Berks
80964 / 1553 State Route 183, Wayne Township, Schuylers County, PA**

Dear Ms. Gilmore,

Thank you for providing the Onondaga Nation with information about this project. If anything changes, I would like to be consulted.

In the event that during project construction, any archeological resources or remains, including, without limitation, human remains, funerary objects, sacred objects, or objects of cultural patrimony are uncovered, please immediately stop construction and contact me at (315)952-3109, or the Onondaga Nation's General Counsel Mr. Joseph Heath at (315)475-2559.

If you have any comments or questions about this matter, please do not hesitate to let me know. Thank you for your help.

Sincerely,



**Anthony Gonyea
A Faithkeeper for the Onondaga Nation
Onondaga Nation Historic Preservation Office
Section 106 Representative**

December 8, 2011

Keweenaw Bay Indian Community
% Ms. Juliet K. Goyen
Cultural Resources Technician Interim
16429 Beartown Road
Baraga, MI 49908

RE: Invitation to Comment in Section 106 Consultation Process

TCNS Reference #: 80964 TCNS Date: November 18, 2011
Site Identifier: Exit 19 / Blue Mountain
Site Address: 1553 State Route 183
Wayne Township, PA 17972
EBI Project Number: 61114599

Project Description: New self-support tower with an overall height of 304 feet and equipment located in a proposed 100-foot by 100-foot fenced compound that will replace an existing tower and compound

Dear Ms. Goyen,

EBI Consulting has received a response from your Tribe for the above referenced project. We greatly appreciate your review time and comments regarding this project.

Please find attached payment for your consultation services.

Thank you very much for your assistance.

Respectfully submitted,



Talia C. Gilmore
Project Scientist
tgilmore@ebiconsulting.com
Tel: 717-428-0401 ext. 1218

Attachments Enclosed

From: (800) 872-4004
EBI Consulting
EBI Consulting
21 B Street

Burlington, MA 01803



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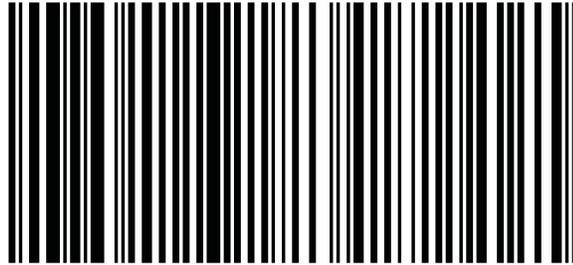
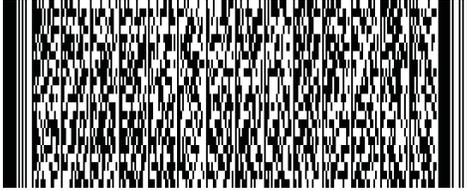
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ActWgt: 1.0 LB
CAD: 100863325/AWSX12250

Invoice #
Reference # 61114599
PO #
Dept #
Ship ID

SHIP TO: 1
Ms. Juliet K. Goyen
Keweenaw Bay Indian Community

16429 Beartown Road

Baraga, MI 49908



(9612019) 0020378 15100142

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Talia Gilmore

From: towernotifyinfo@fcc.gov
Sent: Wednesday, November 16, 2011 8:51 AM
To: Talia Gilmore
Subject: Reply to Proposed Tower Structure (Notification ID: 80964) - Email ID #2918291

Dear Talia C Gilmore,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from THPO/NAGPRA Technician Juliet K Goyen of the Keweenaw Bay Indian Community in reference to Notification ID #80964:

Aniin;

The Keweenaw Bay Indian Community Tribal Historic Preservation Office (KBIC THPO) received your requests for comments or interest concerning Section 106 of the National Historic Preservation Act, to the effect on historic and cultural sites within your proposed project area.

The KBIC Tribal Historic Preservation Office has identified no properties of interest regarding religious or cultural sites documented at this time in your proposed location. If the scope of work changes in any way, or if artifacts or human remains are discovered, please notify the KBIC THPO immediately so we can assist in making an appropriate determination. Please forward any future consultation requests for review of project proposals pursuant to Section 106 of the National Historic Preservation Act to KBIC THPO, Keweenaw Bay Indian Community Tribal Historic Preservation Office or through email at cchosa@kbic-nsn.gov or jgoyen@kbic-nsn.gov and keep us informed of future projects as we continue our efforts to identify and document historic, archaeological and traditional cultural sites in the area.

The KBIC THPO charges a fee of \$150.00 for review of project proposals, which covers a preliminary in-house review of records for the presence of cultural sites in the proposed project area. Please submit a check for \$150.00 to the KBIC THPO, 16429 Beartown Road, Baraga, Michigan 49908, if you have already done so, thank you, we appreciate your support. Fees help us cover costs of research and other consultation activities.

Miigwech (Thank You)

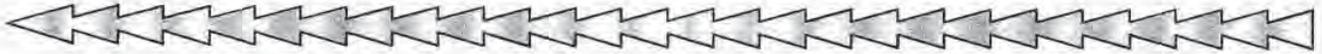
Chris Chosa, THPO/NAGPRA Officer
Juliet K. Goyen, THPO/NAGPRA Technician

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 11/15/2011
Notification ID: 80964
Tower Owner Individual or Entity Name: The County of Berks
Consultant Name: Talia C Gilmore
Street Address: 6876 Susquehanna Trail South
City: York

State: PENNSYLVANIA
Zip Code: 17403
Phone: 717-428-0401
Email: tgilmore@ebiconsulting.com

Structure Type: UTOWER - Unguyed - Free Standing Tower
Latitude: 40 deg 31 min 52.1 sec N
Longitude: 76 deg 12 min 0.8 sec W
Location Description: 1553 State Route 183
City: Wayne Township
State: PENNSYLVANIA
County: SCHUYLKILL
Ground Elevation: 486.8 meters
Support Structure: 91.4 meters above ground level
Overall Structure: 92.7 meters above ground level
Overall Height AMSL: 579.5 meters above mean sea level



SENECA-CAYUGA TRIBE
OF OKLAHOMA

23701 S. 655 ROAD, HWY 10
Grove, OK 74344
(918) 787-5452 Phone
(918) 787-5521 Fax
866-787-5842 Toll Free

May 9, 2012

EBI Consulting
6876 Susquehanna Trail South
York, PA 17403

RE: EBI Project No. 61114599, TCNS #80964

Dear Ms. Talia Gilmore:

The Seneca Cayuga Tribe received a letter regarding the above referenced project(s). The Seneca Cayuga Tribe is committed to protecting sites important to Tribal Heritage, Culture and Religion. Furthermore the Tribe is particularly concerned with historical sites that may contain but not limited to the burial(s) of human remains and associated funerary objects.

As described in your correspondence, and upon research of our database(s) and files, we find our people occupied and visited this area historically and/or prehistorically. However, the particular site location of this project does not endanger known sites of interest to the Seneca Cayuga Tribe. Although with known village sites within Schuylkill County, please be aware should this project inadvertently uncover an archeological site or object(s) we request that you immediately contact the Seneca Cayuga Tribe of Oklahoma, as well as the appropriate state agencies (within 24 hours). We also ask that all construction and ground disturbing activity stop until the Tribe and State agencies are consulted. Please continue the projects as planned.

Thank you, for contacting the Seneca Cayuga Tribe, we appreciate your cooperation. Should you have any further questions or comments please contact, Paul Barton; Tribal Historic Preservation Officer.

Sincerely,

Paul Barton, Tribal Historic Preservation Officer (THPO)
Seneca Cayuga Tribe of Oklahoma
23701 South 655 Rd
Grove, OK 74344
(918) 787-7979
pbarton@sctribe.com

April 26, 2012

Seneca-Cayuga Tribe of Oklahoma
% Mr. Paul Barton
23701 South 655 Road
Grove, OK 74344
pbarton@sctribe.com

RE: Invitation to Comment in Section 106 Consultation Process

TCNS Reference #: 80964 TCNS Date: November 18, 2011
Site Identifier: Exit 19 / Blue Mountain
Site Address: 1553 State Route 183
Wayne Township, PA 17972
EBI Project Number: 61114599

Project Description: New self-support tower with an overall height of 304 feet and equipment located in a proposed 100-foot by 100-foot fenced compound that will replace an existing tower and compound

Dear Mr. Barton,

The purpose of this letter is to inform you of a proposed wireless telecommunications project at the above-referenced location. EBI Consulting (EBI) has been retained to conduct a review of the proposed telecommunication facility project for compliance with the Federal Communications Commission's Nationwide Programmatic Agreement for Review Under the National Historic Preservation Act (47 CFR Part I, dated January 4, 2005).

This notification has been prepared as a follow-up to a previously sent Tower Construction Notification System (TCNS) notice (Notification ID referenced above). EBI would like to inquire if you would be interested in commenting on this proposed project.

Should you have any further questions or require additional information, please do not hesitate to contact me at the email address or telephone number provided below. Thank you for your assistance in this matter.

Respectfully submitted,



Talia C. Gilmore
Project Scientist
tgilmore@ebiconsulting.com
Tel: 717-428-0401 ext. 1218

Attachments Enclosed

From: (800) 872-4004
EBI
EBI Consulting
21 B Street

Burlington, MA 01803



J12101112191425

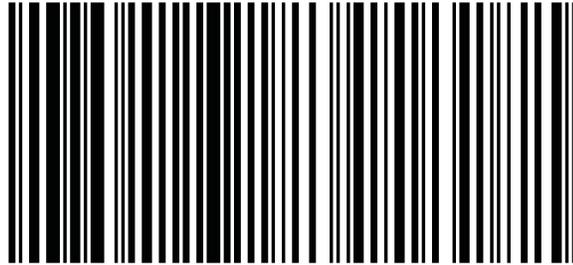
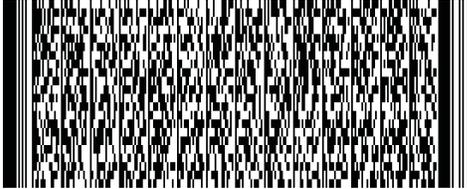
Ship Date: 26APR12
ActWgt: 1.0 LB
CAD: 100863325/AWSX12250

Invoice #
Reference # 61114599
PO #
Dept #
Ship ID

SHIP TO: 1
Mr. Paul Barton
Seneca-Cayuga Tribe of Oklahoma

23701 South 655 Road

Grove, OK 74344



(9612019) 0020378 15177229

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Talia Gilmore

From: Algonquin Consultants [algonquin@neok.com]
Sent: Thursday, June 07, 2012 11:53 AM
To: Talia Gilmore
Subject: Re: TCNS 80964, 84088 - new towers

Regarding 80964 and 84088:

The Wyandotte Nation is satisfied with the efforts that have been conducted to be sure that no cultural resources will be affected by construction of this tower. We also do not have any additional information that suggests that cultural resources will be harmed by its construction. The Nation therefore will not object to its construction.

However, in the event that archaeological materials, including human remains, are discovered during construction or later ground-disturbing maintenance activities at this location, please re-open consultation at that time. Please forward our concerns regarding any such future, unanticipated discoveries and our contact information to the appropriate parties.

We urge everyone involved with cell tower development that towers, antennae, and ancillary structures be constructed in accordance with the best practices available for minimizing impact on the environment in general, and especially on bird, bat, and other species who might suffer deleterious effects from cell towers. Please also consider revegetating with native species whenever possible.

We do appreciate your efforts to consult with us.

Regards,

Rebecca Hawkins, Archaeologist
for Sherri Clemons, THPO
Wyandotte Nation

Talia Gilmore

From: Talia Gilmore
Sent: Monday, June 04, 2012 3:14 PM
To: 'Algonquin Consultants'
Subject: TCNS 80964, 84088 - new towers

Hi again Rebecca,

I also wanted to check again on the status of two sites with ground disturbance:

TCNS 80964 – sent 4/19/12

TCNS 84088 - sent 4/27 (Please note the incorrect TCNS number of 84044 was provided on the letter and the Project Summary Form. The correct number of 84088 was put on the review check. Sorry any confusion that this may have caused.)

Please let me know when you get a chance.

Thanks, again!
Talia

Ms. Talia C. Gilmore
Project Scientist
EBI Consulting
6876 Susquehanna Trail South
York, PA 17403
Tel 717-428-0401 ext 1218
Mobile 717-542-6471
Fax 781-425-3611
tgilmore@ebiconsulting.com
www.ebiconsulting.com

Talia Gilmore

From: postmaster@ebiconsulting.com
Sent: Monday, June 04, 2012 3:14 PM
To: Talia Gilmore
Subject: Delivery Status Notification (Relay)
Attachments: ATT1721403.txt; TCNS 80964, 84088 - new towers

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

algonquin@neok.com

Talia Gilmore

From: Andrew Simpson
Sent: Thursday, May 24, 2012 9:32 AM
To: Talia Gilmore
Subject: FW: TCNS Sites WITH GROUND DISTURBANCE - Follow Up

From: Andrew Simpson
Sent: Tuesday, May 22, 2012 3:34 PM
To: 'Algonquin Consultants'
Cc: Randa Horton
Subject: TCNS Sites WITH GROUND DISTURBANCE - Follow Up

Hello Rebecca,

I wanted to follow up on two sites with ground disturbance. Thank you in advance for your assistance.

TCNS #'s:

80964
84088
77755
83087
83448

Thank you again for your assistance!

Andrew Simpson
Staff Scientist
EBI Consulting
6876 Susquehanna Trail South
York, PA 17403
Email: asimpson@ebiconsulting.com
Office: 717-428-0401 x 1206
Mobile: 717-421-9001

 Please consider the environment before printing this email.

April 26, 2012

Wyandotte Nation
% Ms. Sherri Clemons, THPO
Tribal Heritage Department
64700 East Highway 60
Wyandotte, OK 74370

RE: Invitation to Comment in Section 106 Consultation Process

TCNS Reference #: 80964 TCNS Date: November 18, 2011
Site Identifier: Exit 19 / Blue Mountain
Site Address: 1553 State Route 183
Wayne Township, PA 17972
EBI Project Number: 61114599

Project Description: New self-support tower with an overall height of 304 feet and equipment located in a proposed 100-foot by 100-foot fenced compound that will replace an existing tower and compound

Dear Ms. Clemons,

The purpose of this letter is to inform you of a proposed wireless telecommunications project at the above-referenced location. EBI Consulting (EBI) has been retained to conduct a review of the proposed telecommunication facility project for compliance with the Federal Communications Commission's Nationwide Programmatic Agreement for Review Under the National Historic Preservation Act (47 CFR Part I, dated January 4, 2005).

This notification has been prepared as a follow-up to a previously sent Tower Construction Notification System (TCNS) notice (Notification ID referenced above). EBI would like to inquire if you would be interested in commenting on this proposed project.

Should you have any further questions or require additional information, please do not hesitate to contact me at the email address or telephone number provided below. Thank you for your assistance in this matter.

Respectfully submitted,



Talia C. Gilmore
Project Scientist
tgilmore@ebiconsulting.com
Tel: 717-428-0401 ext. 1218

Attachments Enclosed

From: (800) 872-4004
EBI
EBI Consulting
21 B Street

Burlington, MA 01803



J12101112191425

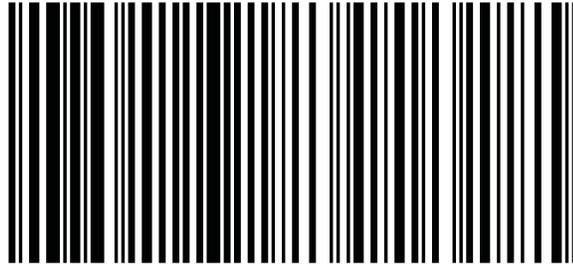
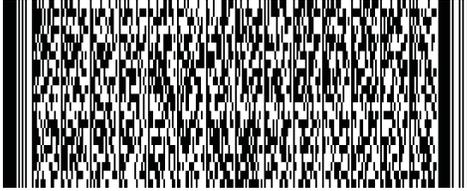
Ship Date: 26APR12
ActWgt: 1.0 LB
CAD: 100863325/AWSX12250

Invoice #
Reference # 61114599
PO #
Dept #
Ship ID

SHIP TO: 1
Ms. Sherri Clemons
Wyandotte Nation

64700 East Highway 60

WYANDOTTE, OK 74370



(9612019) 0020378 15177212

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Talia Gilmore

From: towernotifyinfo@fcc.gov
Sent: Thursday, February 02, 2012 11:28 AM
To: Talia Gilmore
Cc: tcns.fccarchive@fcc.gov
Subject: Reply to Proposed Tower Structure (Notification ID: 80964) - Email ID #2960701

Dear Talia C Gilmore,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from THPO Sherri Clemons of the Wyandotte Nation in reference to Notification ID #80964:

Greetings from Wyandotte Nation. We are interested in consulting on this tower or broadband project, just as we are interested in being consulted regarding all federal undertakings in our homelands. This consultation is one of the activities required by the National Historic Preservation Act (NHPA) for such federal undertakings. Please follow our NHPA procedures for consultation - most recent update 12-1-10, available by e-mailing the cell tower consultation program archaeologist, Rebecca, at algonquin@neok.com or calling her at 918-541-0782. Please do not hesitate to also contact her with any questions; all further correspondence regarding this tower should also be directed to her at that address. This is the e-mail address that we will use for all of our TCNS communications and final responses.

Tizame' (thank you),

Sherri Clemons, THPO
Wyandotte Nation

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 11/15/2011
Notification ID: 80964
Tower Owner Individual or Entity Name: The County of Berks
Consultant Name: Talia C Gilmore
Street Address: 6876 Susquehanna Trail South
City: York
State: PENNSYLVANIA
Zip Code: 17403
Phone: 717-428-0401
Email: tgilmore@ebiconsulting.com

Structure Type: UTOWER - Unguyed - Free Standing Tower
Latitude: 40 deg 31 min 52.1 sec N
Longitude: 76 deg 12 min 0.8 sec W
Location Description: 1553 State Route 183
City: Wayne Township
State: PENNSYLVANIA
County: SCHUYLKILL
Ground Elevation: 486.8 meters

Support Structure: 91.4 meters above ground level
Overall Structure: 92.7 meters above ground level
Overall Height AMSL: 579.5 meters above mean sea level



SHAWNEE TRIBE
 HISTORIC PRESERVATION DEPARTMENT
 29 SOUTH HIGHWAY 69A
 MIAMI, OKLAHOMA 74354
 918 ^ 542 ^ 2441 PHONE 918 ^ 542 ^ 9915 FAX

FACSIMILE COVER PAGE

To: Talia FROM: KIM JUMPER
 FIRM/AGENCY: EBI DATE/TIME: 5/11/12
 FAX NUMBER: 781-425-3611 NO. OF PAGES, INCLUDING COVER: 1
 PHONE NUMBER: _____ MEMO: 84444, 80964, 84823
84088

Message: The Shawnee Tribe's Tribal Historic Preservation Officer concurs that no known historic properties will be negatively impacted by construction of this tower site (see memo line above for TCNS number/s). The Shawnee Tribe's archives do not reveal any issues of concern at this tower location. In the event that archaeological materials are encountered later during construction, use, or maintenance of this tower location, please re-notify us at that time as we would like to resume consultation under such a circumstance.

The Shawnee Tribe's Environmental and Natural Resources Department takes this opportunity to express its concerns that telecommunication towers can have a potentially destructive impact on bats and migratory birds, particularly those that migrate at night, including species listed as threatened and endangered by both states and the federal government, as well as other species. The Shawnee Tribe suggests that this tower be constructed in accordance with the guidelines available from the US Fish and Wildlife Service to reduce the adverse effects of telecommunications towers on migratory birds; these guidelines may be found at: www.fws.gov/migratorybirds/issues/towers/comtow.html.

The Shawnee Tribe's Environmental and Natural Resources Department is further concerned that the proliferation of cell towers may play a role in honey bee Colony Collapse Disorder. We acknowledge that cell phone technology may not be to blame, especially by itself, as other potential causative factors for the decline have been noted, such as insecticides, tracheal and varroa mites [an immunosuppressant], other parasites, pesticides used on hives to eliminate parasites, genetically modified plants, *Nosema* fungus, Israeli Acute Paralysis Virus (IAPV) perhaps introduced from Australia in 2004, Kashmir Bee Virus [KBV], climate change, and drought.

Finally, the Shawnee Tribe's Environmental and Natural Resources Department requests that cell tower sites, whenever remotely feasible, be restored to native vegetation. In all cases, habitat restoration can protect a variety of species, even in small project areas. The large number of cell tower sites provides an as yet unrealized opportunity for region-wide habitat restoration. The Tribe urges the cell phone industry to provide a model for native habitat restoration for other industries.

Please do not hesitate to call us for additional comment.

April 26, 2012

Shawnee Tribe
% Ms. Kim Jumper
29 South Highway 69A
Miami, OK

RE: Invitation to Comment in Section 106 Consultation Process

TCNS Reference #: 80964 TCNS Date: November 18, 2011
Site Identifier: Exit 19 / Blue Mountain
Site Address: 1553 State Route 183
Wayne Township, PA 17972
EBI Project Number: 61114599

Project Description: New self-support tower with an overall height of 304 feet and equipment located in a proposed 100-foot by 100-foot fenced compound that will replace an existing tower and compound

Dear Ms. Jumper,

The purpose of this letter is to inform you of a proposed wireless telecommunications project at the above-referenced location. EBI Consulting (EBI) has been retained to conduct a review of the proposed telecommunication facility project for compliance with the Federal Communications Commission's Nationwide Programmatic Agreement for Review Under the National Historic Preservation Act (47 CFR Part I, dated January 4, 2005).

This notification has been prepared as a follow-up to a previously sent Tower Construction Notification System (TCNS) notice (Notification ID referenced above). EBI would like to inquire if you would be interested in commenting on this proposed project.

Should you have any further questions or require additional information, please do not hesitate to contact me at the email address or telephone number provided below. Thank you for your assistance in this matter.

Respectfully submitted,



Talia C. Gilmore
Project Scientist
tgilmore@ebiconsulting.com
Tel: 717-428-0401 ext. 1218

Attachments Enclosed

From: (800) 872-4004
EBI
EBI Consulting
21 B Street

Burlington, MA 01803



J12101112191425

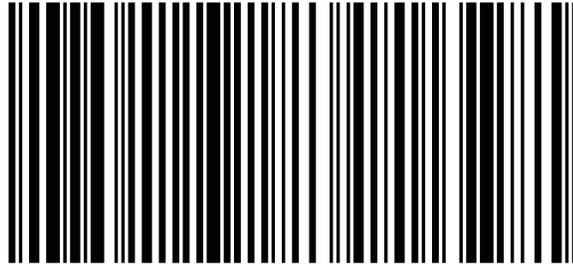
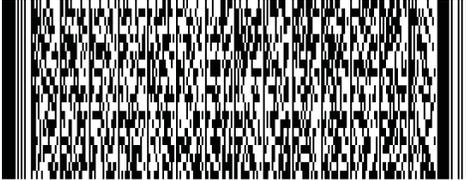
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ActWgt: 1.0 LB
CAD: 100863325/AWSX12250

Invoice #
Reference # 61121023
PO #
Dept #
Ship ID

SHIP TO: 1
Kim Jumper
Shawnee Tribe

29 South Highway 69A

Miami, OK 74354



(9612019) 0020378 15177199

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Talia Gilmore

From: towernotifyinfo@fcc.gov
Sent: Friday, November 18, 2011 3:33 PM
To: Talia Gilmore
Cc: tcns.fccarchive@fcc.gov
Subject: Reply to Proposed Tower Structure (Notification ID: 80964) - Email ID #2920146

Dear Talia C Gilmore,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from THPO Kim Jumper of the Shawnee Tribe in reference to Notification ID #80964:

WE HAVE UPDATED OUR PROCEDURES FOR 2008 (EFFECTIVE 1-14-08). PLEASE MAKE SURE THAT YOU HAVE RECEIVED AND READ A COPY OF OUR UPDATED PROCEDURES .

Please use only the following address when sending materials to us:

Please use this fax number to contact us: 918-542-9915. Please do not contact us via e-mail.

SHAWNEE TRIBE
ATT: KIM JUMPER
HISTORIC PRESERVATION DEPT.
29 SOUTH HIGHWAY 69A
MIAMI, OK 74354

The Shawnee Tribe is interested in consulting on this tower, as we are in all towers in this geographic area. Ms. Kim Jumper is our manager for cell tower consultation. Please contact Kim Jumper, Asst. THPO, at 918-542-2441 if you have any questions on this or any other TCNS project.

For this particular tower to which we are responding, please follow our consultation procedures. If this tower is a CO-LOCATION, please fax us and let us know. We cannot always reliably tell from the TCNS web site when a tower is a co-location.

PLEASE, when you are mailing us regarding a cell tower, be sure to put Kim Jumper's name and Historic Preservation Department in the address. If you send any mailing just generally to the Shawnee Tribe, without including the name and department, several days or more may pass before the mailing is properly directed.

In the event that you are building another tower in this state and you did not receive a response from us through the TCNS, it is because the project was omitted from the TCNS web site, as we respond to ALL towers listed in our geographic areas on that web site. We take this opportunity to remind you that, even if a tower has been omitted from the TCNS web site, as occasionally happens, we are still interested in consulting on it.

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 11/15/2011
Notification ID: 80964
Tower Owner Individual or Entity Name: The County of Berks
Consultant Name: Talia C Gilmore
Street Address: 6876 Susquehanna Trail South
City: York
State: PENNSYLVANIA
Zip Code: 17403
Phone: 717-428-0401
Email: tgilmore@ebiconsulting.com

Structure Type: UTOWER - Unguyed - Free Standing Tower
Latitude: 40 deg 31 min 52.1 sec N
Longitude: 76 deg 12 min 0.8 sec W
Location Description: 1553 State Route 183
City: Wayne Township
State: PENNSYLVANIA
County: SCHUYLKILL
Ground Elevation: 486.8 meters
Support Structure: 91.4 meters above ground level
Overall Structure: 92.7 meters above ground level
Overall Height AMSL: 579.5 meters above mean sea level



Delaware Tribe Historic Preservation Office

1420 C of E Drive, Suite 190

Emporia, KS 66801

(620) 340-0111

bobermeyer@delawaretribe.org

December 14, 2011

EBI Consulting
Attn: Talia Gilmore
6876 Susquehanna Trail South
York, PA 17403

Re: TCNS #80964; Site Identifier: Exit 19 / Blue Mountain; Site Address: 1553 State Route 183, Wayne Township, PA, 17972; EBI Project #61114599

Dear Talia Gilmore:

Thank you for providing the survey report for the above referenced project. Our review also indicates that there are no religious or culturally significant sites in this project area and we have no objection to the proposed project. We defer comment to your office as well as to the State Historic Preservation Office and/or the State Archaeologist.

However, we ask that if any human remains are accidentally unearthed during the course of the project that you cease development immediately and inform the Delaware Tribe of Indians of the inadvertent discovery.

If you have any questions, feel free to contact this office by phone at (620) 340-0111 or by e-mail at bobermeyer@delawaretribe.org.

Sincerely,

A handwritten signature in cursive script that reads "Brice Obermeyer".

Brice Obermeyer
Delaware Tribe Historic Preservation Office
1420 C of E Drive
Emporia, KS 66801

December 8, 2011

Delaware Tribe of Indians of Oklahoma
% Dr. Brice Obermeyer
Delaware Tribal Historical Preservation Office
1420 C of E Drive, Suite 190
Emporia, KS 66801

RE: Invitation to Comment in Section 106 Consultation Process

TCNS Reference #: 80964 TCNS Date: November 18, 2011
Site Identifier: Exit 19 / Blue Mountain
Site Address: 1553 State Route 183
Wayne Township, PA 17972
EBI Project Number: 61114599

Project Description: New self-support tower with an overall height of 304 feet and equipment located in a proposed 100-foot by 100-foot fenced compound that will replace an existing tower and compound

Dear Dr. Obermeyer,

The purpose of this letter is to inform you of a proposed wireless telecommunications project at the above-referenced location. EBI Consulting (EBI) has been retained to conduct a review of the proposed telecommunication facility project for compliance with the Federal Communications Commission's Nationwide Programmatic Agreement for Review Under the National Historic Preservation Act (47 CFR Part 1, dated January 4, 2005).

This notification has been prepared as a follow-up to a previously sent Tower Construction Notification System (TCNS) notice (Notification ID referenced above). EBI would like to inquire if you would be interested in commenting on this proposed project.

Should you have any further questions or require additional information, please do not hesitate to contact me at the email address or telephone number provided below. Thank you for your assistance in this matter.

Respectfully submitted,



Talia C. Gilmore
Project Scientist
tgilmore@ebiconsulting.com
Tel: 717-428-0401 ext. 1218

Attachments Enclosed

From: (800) 872-4004
EBI Consulting
EBI Consulting
21 B Street

Burlington, MA 01803



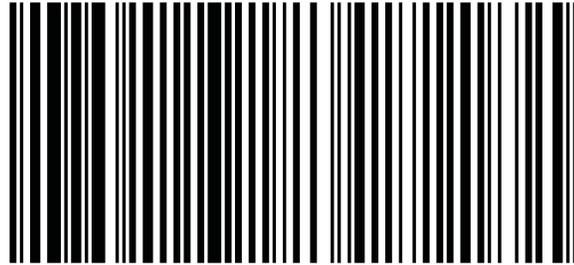
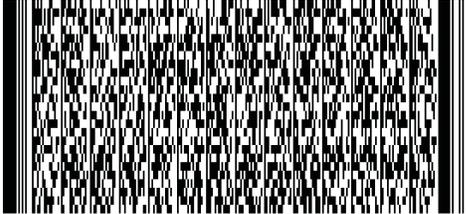
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Ship Date: 08DEC11
ActWgt: 1.0 LB
CAD: 100863325/AWSX12250

Invoice #
Reference # 61114599
PO #
Dept #
Ship ID

SHIP TO: 1
Dr. Brice Obermeyer
Delaware Tribe of Indians of Oklaho

Delaware Tribal Historical Preserva
1420 C of E Drive, Suite 190
Emporia, KS 66801



(9612019) 0020378 15100128

GND

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APPENDIX H
BIOLOGICAL ASSESSMENT



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Pennsylvania Field Office
315 South Allen Street, Suite 322
State College, Pennsylvania 16801-4850

November 30, 2012

Chris Baird
EBI Consulting
21 B Street
Burlington, MA 01803

Dear Mr. Baird:

This responds to your correspondence received October 26, 2012, requesting our review of the *Biological Assessment for the Berks County Public Safety Radio System within the Blue Mountain-Kittatinny Ridge Important Bird Area (BA)* which addresses impacts to migratory birds as a result of three cellular towers proposed in Berks County, Pennsylvania. The following comments are provided pursuant to the Migratory Bird Treaty Act (MBTA, 16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755, as amended) and the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended; 16 U.S.C. 668-668d).

Assessment of Risks to Migratory Birds including Bald and Golden Eagles

The Service is the principal Federal agency charged with protecting and enhancing populations and habitat of migratory bird species. The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the MBTA has no provision for authorizing incidental take, the Service recognizes that some birds may be killed even if all reasonable measures to avoid take are implemented.

The BA was well-written and thoroughly addressed the need for the project, the logistical challenges to the Service's recommendations, and the impacts to migratory birds as a result of the project's location within a major migratory bird flyway. The attention to detail was incredibly helpful to determine the scope of the proposed project. However, since the BA illustrates the potential for avian mortality from collisions with the cell towers as well as from habitat destruction within the project boundaries, we would like to offer the following comments and concerns.

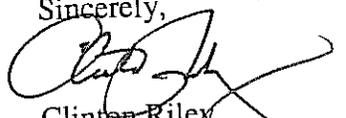
Seasonal restrictions - Currently, there are no planned seasonal restrictions on construction at any of the three proposed sites even though there are sensitive species breeding in the area, including forest interior bird species whose populations are in decline. The basis for this decision is due to the surrounding habitat being available and also due to construction occurring

during the day whereas the songbirds migrate at night. During construction, breeding habitat is more likely to be impacted than migration movement. Therefore, where disturbance is necessary, we suggest clearing natural or semi-natural habitats (*e.g.*, forests, woodlots, shrubby areas) between September 1 and March 31, which is outside the nesting season for most native bird species and is also consistent with the current project schedule. Without undertaking specific analysis of breeding species and their respective nesting seasons on the project site, implementation of this seasonal restriction will avoid take of most breeding birds, their nests, and their young (*i.e.*, eggs, hatchlings, fledglings) that may have already established themselves on the project site. Alternatively, you could use the breeding seasons of the species compiled in Tables 2 and 6 to determine the most appropriate dates to avoid clearing habitat when these sensitive species would be breeding in the area.

Monitoring – The siting and construction of new towers creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. Most massive bird kills occur as the birds become attracted to and confused by clouds that are illuminated by tall lighted structures such as the proposed towers. As illustrated in the BA, the degree of the effects from the additional lights, the concentrated locality of raptor activity and the slope soaring features is unrepresented in the literature. Therefore, we suggest implementing a monitoring plan during construction and operations to document bird mortality and to implement future best management practices as they are developed. We ask that you report these incidents in the Service's Bird Fatality/Injury Reporting Program. The program is Web-based, and can be accessed over the Internet using a Microsoft Internet Explorer Web browser. Please see the attached enclosure for reporting directions. In addition to using the reporting system, please contact our office if the fatality is a federally listed species or an eagle.

Please contact Jennifer Siani of my staff at 814-234-4090 if you have any questions or require further assistance.

Sincerely,



Clinton Riley
Field Office Supervisor

U.S. Fish and Wildlife Service Bird Fatality/Injury Reporting Program Filer Instructions

The U.S. Fish and Wildlife Service (USFWS) Bird Fatality/Injury Reporting Program (Bird Report program) was designed by the USFWS and released in 2003. The program is Web-based, and can be accessed over the Internet using a Microsoft Internet Explorer Web browser.

The Bird Report program was designed, with significant industry input and feedback, to provide a user-friendly, easily-accessed, method of allowing members of the electric utility industry to voluntarily report bird mortalities and injuries resulting from electrocutions or collisions with electrical utility equipment. Collecting information about the locations and circumstances under which birds are killed or injured on power equipment serves the primary purpose of determining how to prevent future bird interactions. The database is intended for use by utilities to see which structures and equipment are hazardous to birds, and under what conditions. Further, reporting whether and what type of retrofit measures were in place at the time of an electrocution or collision will provide feedback about the effectiveness of existing retrofitting techniques and equipment. This will enhance the effectiveness of future retrofitting actions on existing equipment, and improve the configuration design for new equipment.

The goal of this program is to provide a clearinghouse of useful information for the electric utility industry to mitigate the impact of power equipment in the loss of birds. Preventing bird-caused outages is not just a conservation concern for the Service, it is also an economic and public relations concern for utilities.

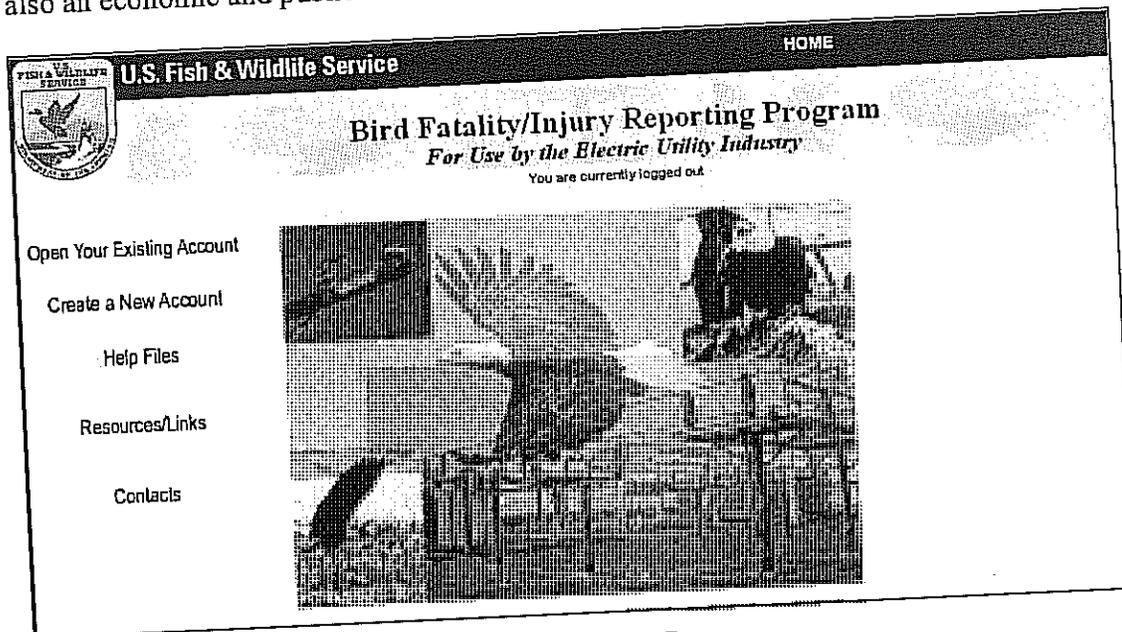


Figure 1: Bird Fatality/Injury Reporting Program Home Page

Access to the Bird Report program is free to any member of the electric utility industry, and because the program is Web-based, no special software is required. To access the program, a utility needs a PC, an Internet connection, an e-mail address, the Microsoft Internet Explorer Web browser, and an account with the system.

The program is account-based to ensure that the information it contains is secure, and to protect your privacy and the information you enter in the system. Accounts must be set up by the USFWS. Please contact your regional USFWS Office of Law Enforcement representative for more information. The remainder of this document will outline the elements of a filer account and explain how to use the Bird Report program to file bird fatality/injury incident reports and retrieve data from the system. For more general information about the USFWS Bird Fatality/Injury Report program, please see the "Frequently Asked Questions" section in Appendix A.

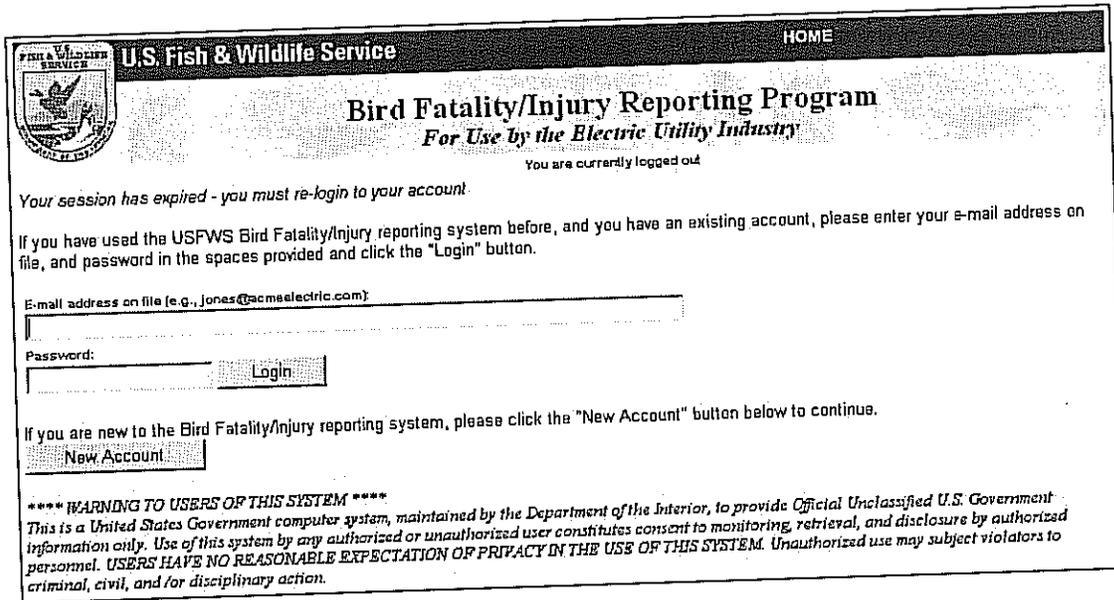
Accessing Your Filer Account

After you have established an account in the Bird Fatality/Injury Reporting Program, you will be required to log into that account each time you need to file a new report, retrieve an existing report, or access most of the system features. Follow these steps to access your account:

1. Navigate your Microsoft Internet Explorer web browser to the Bird Report home page at <https://birdreport.fws.gov>.
2. Click the "Open Your Existing Account" option.
3. On the Bird Report login page, enter your complete e-mail address (e.g., jones@acmeelectric.com). Note that this is the e-mail address saved as your primary point of contact for the account.
4. Enter your password, and click the button labeled "Login".

Please keep in mind that you are only granted five (5) unsuccessful attempts to access your account. Upon the fifth unsuccessful attempt, your session will be locked and you will not be able to access your account for 20 minutes. Also note that upon successful login, the system will automatically log you out after 20-minutes of inactivity.

You may log into your account at any time and from any location. There is no limit to the number of times you may successfully login, nor is there a limit to the number of login sessions you may open (i.e., you may have more than one person from your organization logged into the account at one time).



U.S. Fish & Wildlife Service HOME

Bird Fatality/Injury Reporting Program

For Use by the Electric Utility Industry

You are currently logged out

Your session has expired - you must re-login to your account.

If you have used the USFWS Bird Fatality/Injury reporting system before, and you have an existing account, please enter your e-mail address on file, and password in the spaces provided and click the "Login" button.

E-mail address on file (e.g., Jones@acmeelectric.com)

Password: _____

If you are new to the Bird Fatality/Injury reporting system, please click the "New Account" button below to continue.

****** WARNING TO USERS OF THIS SYSTEM ******
 This is a United States Government computer system, maintained by the Department of the Interior, to provide Official Unclassified U.S. Government information only. Use of this system by any authorized or unauthorized user constitutes consent to monitoring, retrieval, and disclosure by authorized personnel. USERS HAVE NO REASONABLE EXPECTATION OF PRIVACY IN THE USE OF THIS SYSTEM. Unauthorized use may subject violators to criminal, civil, and/or disciplinary action.

Figure 2: The Login Page

Features Included with your Filer Account

You must have a filer account in the Bird Injury/Fatality Reporting Program to report a bird injury/fatality incident, and this is the primary task you will execute from your account. You may also use your account to perform administrative tasks such as updating your contact information and changing your password. In addition, you will use your account to access previously-submitted incident reports, perform data queries, and generate a variety of system reports. The steps to follow to fill out, and submit, an injury/fatality incident report are summarized in the next section. Other key components of a Bird Report filer account are described here.

Editing Your Account Information

To maintain an active account in the Bird Report program you must include four key data elements:

- Company/Organization Name
- Primary Point of Contact – This is the individual in your organization who will serve as the point of contact for your account; however, anyone you may grant access to your account for anyone else in your organization and you also have the option of identifying others in your organization as the point of contact for a specific incident report.
- E-mail Address – This is the e-mail address for your point of contact, and this e-mail address must be used to log into your account.
- Telephone Number

Your account also has an optional field to include a secondary e-mail address. The Bird Report program includes some automated features for e-mail correspondence, which will always be sent to your primary e-mail address and a secondary e-mail address if you include one.

All of these data elements will be set up at the time that your account is initially established. You may modify any element, at any time, by logging into the main account page (Figure 3), and clicking the "Edit Your Account Information" menu option.

Figure 3: Filer Account Page

Changing Your Password

As mentioned in the "Accessing Your Filer Account" section above, you must enter a valid e-mail address and password to log into your account. The e-mail address you will use to login is the same one that you include for your primary point of contact for the account. If you change that e-mail address, the new e-mail address will be used to log into your account. The password you use to access your account will be created by you, and must meet the following criteria:

- Length: Between 8 and 20 characters.
- Include at least one lower case letter (a-z).
- Include at least one upper case letter (A-Z).
- Include at least one number (0-9).
- Do not include any spaces.

Your password is encrypted in the Bird Report database and will only be known by you, or anyone else you share it with. At a minimum, the program will require that you

change your password every 90 days, but you may change any other time if you choose. A password expiration status message will always be displayed at the top of the account page. Once you have reached 90 days, the program will prompt you to change your password before continuing. If you want to change your password any other time, simply click the "Change Your Password" menu option on the main account page.

View a Previously-Submitted Report

You may access any of your previously-submitted bird fatality/injury incident reports at any time, by logging into your account and clicking the "View a Previously-Submitted Report" menu option on the main account page.

View Your Filing History

You may access a summary of your complete filing history at any time by logging into your account and choosing the "View Your Filing History" menu option on the main account page. The filing history page also provides hyperlinks so that you may open the complete summary of any report in the list. In addition, the program offers you the option to export your filing history to a Microsoft Excel spreadsheet that you may download, and use as you deem appropriate.

View Alerts

The Bird Report program provides an interface to allow your USFWS point of contact to review, and comment, on your reports. If your USFWS point of contact does include comments on a specific report, the report will be flagged with an "alert", and you may access the report, with the annotations by the USFWS point of contact by logging into your account and clicking the "View Alerts" menu option.

View Your Pending Reports

When you first create a bird fatality/injury incident report, the report is assigned a confirmation/tracking number, and is set to a status of "Pending" until you have made a final determination in regards to whether retrofit measures will be necessary. If you make that determination at the time that you initially submit the report, you may change the status of the report. Otherwise, the status will remain "Pending" until you go back into the report and update that status.

Your account includes a feature which keeps track of all of your "Pending" reports, and you may access that list by logging into your account and choosing the "View Your Pending Reports" menu option. Each report listed includes a hyperlink that allows you to open the report, to either review it, or make edits. Once you have finalized your retrofit measure determination, you may update the status report, thus removing it from your "Pending" reports list.

Queries/Reports

The Bird Report program includes a number of built-in queries and reports that allow you to access and analyze all data you have entered into the system. Access to some system-wide stats is also provided in this module. To access the queries/reports option, log into

your account and click the "Queries/Reports" menu option. For more detail on this topic, see the section titled "On-line Querying and Reporting Capabilities" below.

Filing a New Bird Fatality/Injury Report

This section summarizes how to fill out, and submit, a new bird fatality/injury report. The on-line form is designed to be as user-friendly as possible, but do not hesitate to contact your USFWS point of contact if you have any questions as you fill out the form.

The entire report is completed on one screen, which is broken into seven (7) logical segments, each of which is described below. Please also note that a hardcopy version of the blank form is available in Adobe PDF format, which you may download from the site, print off, and use in the field (Figure 4). The hardcopy form matches the on-line form and may be used by field personnel who may encounter impacted birds to document all pertinent observations. Information from the hardcopy form can then be typed into the Bird Report program in the office.

Point of Contact

The Point of Contact section includes two required fields to document the name of your company/organization and the name of an individual within your company who will serve as a point of contact for the report. By default, these fields will be pre-filled with information from your account. You may edit the fields for an individual report.

U.S. Fish and Wildlife Service Bird Fatality/Injury Report	
Click here to download a blank hard-copy version of this form - for use in field reporting (Adobe PDF format)	
Click here to display instructions	
POINT OF CONTACT	
Name of Individual Filing Report*: Joe Filer	Name of Company/Organization: ACME Electric (Test Account)
FATALITY/INJURY DETAILS	
Date Bird was Discovered* (format: MM/DD/YYYY) <input type="text"/>	
Type of Bird Involved*: <input type="radio"/> Bald Eagle <input type="radio"/> Raven <input type="radio"/> Crow <input type="radio"/> Magpie <input type="radio"/> Owl <input type="radio"/> Raptor <input type="radio"/> Osprey <input type="radio"/> Great Blue Heron <input type="radio"/> Gull Species <input type="radio"/> Vulture <input type="radio"/> Other	
What condition was the bird found in?*: <input type="radio"/> Alive <input type="radio"/> Dead	
Describe any visible injuries to the bird: <input type="text"/>	
Disposition of Bird: <input type="radio"/> Recovered <input type="radio"/> Not Recovered	
Apparent Cause of Fatality/Injury* (select more than one by holding down the "Ctrl" key and clicking each choice):	
<input type="checkbox"/> Collision with line <input type="checkbox"/> Electrocution <input type="checkbox"/> Other <input type="checkbox"/> Probable collision	<input type="text" value="Select one..."/>
Was this incident associated with an outage*? <input type="text" value="Select one..."/>	

Figure 4: The Report Interface – Point of Contact and Fatality/Injury Details

Fatality/Injury Details

This section should be used to provide general information about the incident including when the bird was discovered, the type of bird involved, and the apparent cause of the injury/fatality. Note that some of the data fields expand, prompting you for more information, depending on your selection. For example, the selection of a general bird type, such as "Raptor", will expand the screen so that you may identify the type of raptor found. In addition, if you document that the bird was found alive, or that you recovered the bird (dead or alive), you will be prompted to provide more information about the fate of the bird.

In terms of indicating the apparent cause of the fatality/injury, a list of general causes is provided, and you should select the best options (you may select more than one), based on your observations in the field. This section also provides you an opportunity to indicate if the incident was associated with an outage, and details about the outage.

Location Where Bird Was Found

This section includes data fields to indicate the location where you found the bird. In addition to fields to identify the state, city, community, county, etc., you may also include detailed information such as the circuit, pole (if applicable) and other nearby landmarks.

LOCATION WHERE BIRD WAS FOUND

State*:

Nearest town or community*:

OR, enter name:

Circuit Num: Circuit Name: Op. Area ID:

Pole number (if applicable):

GPS Coordinates:

Nearest road or landmark (please be as specific as possible, e.g., milepost number or direction for nearest crossroad):

Figure 5: The Report Interface - Location of Bird

Configuration Details

Use this section to describe the configuration of equipment that may have been involved with the incident. The purpose of this section is to collect information about the types of configuration most commonly involved in bird injury/fatality incidents and perhaps identify trends that can be remedied with proven corrective actions. Required data fields in this section include indicating whether a transmission line was involved, and the associated configuration type (phase, pole structure, substation, etc.).

If you suspect that the incident was the result of an electrocution, you also have the option of identifying associated pole equipment.

CONFIGURATION DETAILS

Select the configuration that most closely matches the one involved in this fatality/injury*:
 Select one... [dropdown]

Is this a transmission line*?:
 Select one... [dropdown]

If electrocution, select all equipment on the pole (select more than one by holding down the "Ctrl" key and clicking each choice):

- Arrestor(s)
- Capacitor(s)
- Cutout(s)
- Exposed Energized Jumper Wires
- Grounded Guy Wire(s)
- Grounded Metal Bracket(s)

Enter voltage, in kV: [input] kV

Did ground wire or neutral contribute to the electrocution? Yes No

Was neutral involved? Yes No

If there was a cross-arm, what was the length? [input]

If pole or equipment on pole is suspected cause, where was bird found in relation to pole or equipment?
 select one... [dropdown]

Figure 6: The Report Interface - Configuration Details

Environmental Conditions

Collecting information about environmental conditions that may contribute to bird fatality/injury incidents might also prove to be useful in identifying methods for mitigating these types of incidents. The Environmental Conditions section provides several optional data fields that may be completed based on your observations in the field. Questions about the surrounding environment, food sources nearby, and nests in the vicinity may prove useful in evaluating high risk areas in your network.

ENVIRONMENTAL CONDITIONS

Surrounding environment (select more than one by holding down the "Ctrl" key and clicking each choice):

- Desert
- Forest
- Grassland/Tundra
- Rural
- Urban

Weather conditions (select all that apply, if known):

- Clear
- Fog
- Wind
- Snowing
- Raining

Approximate time of day, if known:
 Select one... [dropdown]

Food source(s) nearby (select all that apply):

- Cannery
- Dumpster
- Landfill
- Fish processing plant/fish cleaning station
- Person feeding
- Prey
- Restaurant/Cafe
- Salmon Stream
- Other food source
- Cancel/Clear Selections

Nest nearby/involved?: [input]

Nest remarks (*See retrofit options below. Note that bird nest retrofit actions may require coordination/permitting from FWS):
 [text area]

Figure 7: The Report Interface - Environmental Conditions

Existing Protection / Retrofit Measures

This section cuts to the chase of the greatest value this program may offer in terms of mitigating bird injuries/fatalities. The ultimate goal of this program is to collect, and

analyze, information needed assess the effectiveness of a variety of raptor protection and retrofit measures already available, or currently under study. This section is divided into two subsections focused first on identifying whether the structure involved in the incident already has existing protection in place, and second providing space for you to indicate whether you plan to implement retrofit measures on the structure.

You should note that not all bird electrocutions or collisions require retrofits to power poles or lines. Conversely, retrofitting only the pole that caused the electrocution may not always be sufficient, because similarly configured poles in the same area may be just as hazardous and attractive to birds as the pole that caused the death or injury. The best approach is to implement a regular maintenance and appropriate retrofitting schedule in accordance with a comprehensive Avian Protection Plan.

This section allows you the opportunity to weigh the need for additional retrofit measures, and then document changes you make. You have the option of filling out this information at the time you submit your report, or you may return to this report later to document your final retrofit actions (you even have the option of including photo images of changes you make – *see below*).

EXISTING PROTECTION / RETROFIT MEASURES	
Existing raptor protection on structure? <input type="radio"/> Yes <input type="radio"/> No	
Describe planned retrofit measures - include date of completion (please note - you may return to this form and edit this section at a later time):	
<div style="border: 1px solid black; height: 40px;"></div>	
Status of this Report:	<input type="text" value="Pending"/> (You may edit this field later)
Completion Date of Retrofits:	<input type="text"/> (You may enter/edit this field later)
Total Cost of Retrofits: \$	<input type="text"/> (You may enter/edit this field later)

Figure 8: The Report Interface - Retrofit Measures

Additional Information and Photographs

The last section of your report provides a free text block in which you may include any other information you deem relevant. This is a catch-all block, and you may return to the report anytime after initial submittal to add information.

ADDITIONAL INFORMATION AND PHOTOGRAPHS	
Additional information (please note - you may return to this form and edit this section at a later time):	
<input type="text"/>	
Attach photographs (you may attach up to three photographs - enter a brief caption, and then click the "Browse" button to attach each photo): Display Instructions for Attaching Photos	
Photograph 1 (.jpg or .gif only)	
Brief caption:	<input type="text"/>
Image file:	<input type="text"/> Browse...
Photograph 2 (.jpg or .gif only)	
Brief caption:	<input type="text"/>
Image file:	<input type="text"/> Browse...
Photograph 3 (.jpg or .gif only)	
Brief caption:	<input type="text"/>
Image file:	<input type="text"/> Browse...

Figure 9: The Report Interface - Additional Information

You also have the option of uploading photo image files to be linked to your report. For your initial submittal, you are limited to just three image files; however, you may return to the report later and upload more image files.

Note that you are limited to only .jpg or .gif image files, and file size restrictions are in place, so please compress your image size as much as possible. Keep in mind that an image resolution of 800X600 pixels, or less, is usually more than sufficient.

What Happens to Your Report After Submittal?

Upon submittal of your report, the record will be entered in the Bird Fatality/Injury Reporting Program database, and a confirmation number will be assigned, which can be used to track the report. You may access this report from your account at any time, and you also have the option of editing key fields (retrofit and additional information) and uploading photo images after initial submittal. In fact, unless you include retrofit measure data in your initial submittal, the status of your report will be set to "pending" until you return to the report and finish this section. Again note that this does not necessarily indicate that a retrofit action is needed as a direct result of the reported incident, but you are required to indicate what your retrofit measure decision was, and the basis for that decision.

Ultimately, the information on bird electrocutions and collisions will be used by the Service primarily to work with the electric industry towards elimination of bird interactions on power equipment. The data will also be available for use as appropriate by Service biologists and others for biological research, management and other purposes. Of course, you may access the information from your reports at any time for use you deem appropriate. In a section below you will see that the program offers a number of on-line querying/reporting capabilities that you may find useful for tracking and internal/external reporting.

On-line Querying and Reporting Capabilities

The Bird Report program provides a variety of on-line querying and reporting tools that allow you to access and analyze the data you have entered for all of your bird fatality/injury incident reports. In addition to any complete individual report you have entered and a summary of your full filing history mentioned earlier, you may also access a variety of standard summary reports, or generate custom reports using the on-line dynamic query builder. As an added benefit, the program provides you with the ability to export all of the standard system reports to a Microsoft Excel spreadsheet that you may download from the site.

<p>Welcome to the U.S. Fish and Wildlife Service Bird Fatality/Injury Reporting Program</p> <p><i>Note: Your current password will expire in 72 day(s)</i></p> <p>The Queries/Reports feature is designed to allow you to query information from the USFWS Bird Fatality/Injury Reporting Program database. You have the options of viewing your complete reporting history, building dynamic queries/reports based on data you have entered in the system, and viewing system-wide statistics from the program database. Choose any of the options below by clicking on the appropriate link.</p> <p> SHOW MY COMPLETE REPORT HISTORY BUILD USER-DEFINED QUERIES/REPORTS VIEW SYSTEM-WIDE STATS </p> <p><i>Note: This feature will query only your data in the USFWS Bird Fatality/Injury Reporting Program. For system-wide data, choose the "View System-wide Stats" option. To continue, choose one of the standard options provided, or build your query below based on any combination of the fields provided. Fields with red labels must be filled in, but all other search fields are optional. At a minimum, you must choose the "All Incident Reports" option, or enter a date range to limit your search to a specific timeframe.</i></p> <hr/> <p>Option 1: View a list of PENDING reports: <input type="button" value="Standard Report 1 - Pending Reports"/></p> <hr/> <p>Option 2: Generate a report summary by location: <input type="button" value="Standard Report 2 - Summary by Location"/></p> <hr/> <p>Option 3: Generate a report summary by year: <input type="button" value="Standard Report 3 - Summary by Year"/></p> <hr/> <p>Option 4: Generate a report summary by bird type: <input type="button" value="Standard Report 4 - Summary by Species"/></p> <hr/> <p>Option 5: Build your own report based on any of the following:</p> <p>All Incident Reports: <input checked="" type="checkbox"/> OR</p> <p>All Incident Reports Between: <input type="text"/> AND <input type="text"/></p> <p>Bird Type: <input type="text" value="Select one - Or, leave blank for all types..."/></p> <p>Cause of Injury/Fatality: <input type="text" value="Select one - Or, leave blank to show all causes..."/></p> <p>Type of Equipment Involved: <input type="text" value="Select one - Or, leave blank for all types..."/></p> <p>Pole Type Involved: <input type="text" value="Select one - Or, leave blank for all types..."/></p> <p style="text-align: center;"><input type="button" value="Submit Your Query"/></p>	<p>FILE A NEW REPORT</p> <p>ACCOUNT - HOME</p> <p>EDIT YOUR ACCOUNT INFORMATION</p> <p>CHANGE YOUR PASSWORD</p> <p>*** VIEW ALERTS ***</p> <p>VIEW A PREVIOUSLY SUBMITTED REPORT</p> <p>VIEW YOUR PENDING REPORTS</p> <p>VIEW YOUR FILING HISTORY</p> <p>FREQUENTLY ASKED QUESTIONS</p> <p>QUERIES/REPORTS</p> <p>LOGOUT</p>
---	--

Figure 100: Queries and Reports

Standard reports available in the program include the following:

- Your complete report history
- All pending incident reports
- A summary of incidents broken down by location

- A summary of incidents by year
- A summary of incidents by species

In addition, you have the option of building your own report based user-defined filters such as date range, bird species, cause of injury/fatality, configuration type, and type of equipment involved.

The queries/reports described above provide summaries of data pulled only from reports you have entered into the program. The Queries/Reports module also includes a “View System-wide Stats” component that allows you to run general data summaries from all reports entered in the program by all users. These reports includes total incidents reported over the last five years, numbers and types of birds reported, and the causes of injuries/fatalities (electrocutions/collisions) reported over the last 5 years.

Appendix A

U.S. Fish and Wildlife Service Bird Fatality/Injury Reporting Program Frequently Asked Questions

1. Q: Do I have to report?

A: There is not a legislative or regulatory requirement for electric utilities to report bird electrocutions or collisions with power equipment to the U.S. Fish and Wildlife Service (Service). Reporting of bird mortalities and injuries is generally done on a voluntary basis, unless a court order or formal agreement requires reporting. It should be noted that concealment of violations of Federal law may create additional liability for the individual and/or company who conceals them. Additionally, failure to report undermines the relationship between industry and the Service, and will affect our ability to cooperatively address the issue of unauthorized take of migratory birds.

In Region 7 (Alaska), where utilities have been voluntarily reporting bird deaths and injuries since 2000, faxed or emailed reports can no longer be accepted. The new Web-based reporting system will serve as the exclusive method by which electric utilities will report bird interactions with their power equipment.

2. Q: Why should I report?

A: Reporting bird electrocutions and collisions to the Fish and Wildlife Service serves several purposes. It provides the Service an opportunity to recover dead and injured birds. Reporting the location of an injured bird allows for the bird to be recovered and transferred to an appropriate facility for treatment. Dead birds, particularly eagles, can be salvaged for distribution to interested and qualified Natives for religious purposes, or for other permitted uses.

Collecting information about the locations and circumstances under which birds are killed or injured on power equipment serves the primary purpose of determining how to prevent future bird interactions. The database is intended for use by utilities to see which structures and equipment are hazardous to birds, and under what conditions. Further, reporting whether and what type of retrofit measures were in place at the time of an electrocution or collision will provide feedback about the effectiveness of existing retrofitting techniques and equipment. This will enhance the effectiveness of future retrofitting actions on existing equipment, and improve the configuration design for new equipment.

Preventing bird-caused outages is not just a conservation concern for the Service, it is also an economic and public relations concern for utilities.

3. Q: Do I report all birds or just eagles?

A: All birds should be reported if they are injured or killed on power equipment, not just eagles. Though eagles are more sought after for salvage purposes, and consequently will be recovered by the Service whenever possible, virtually all birds, including waterfowl (except state game birds and pigeons) are protected by the federal Migratory Bird Treaty Act. The mission of the Service includes protection of all migratory birds. Further, collecting information about all bird-caused outages into a centralized database will facilitate the prevention of future electrocutions.

4. Q: If I voluntarily report aren't I setting myself up for prosecution?

A: The Migratory Bird Treaty Act (16 U.S.C. 703-712) prohibits the taking, killing, possession, sale transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the Act has no provision for allowing unauthorized take, it is understood that some birds may be killed even if all reasonable measures to avoid it are implemented. The Service's Office of Law Enforcement carries out its mission to protect migratory birds not only through investigations and enforcement, but also through fostering relationships with individuals and industries who proactively seek to eliminate their impacts on migratory birds. While it is not possible under the Act to absolve individuals or companies from liability if they follow approved conservation guidelines, enforcement will be focused, as it has been in the past, on those individuals or companies that take migratory birds with disregard for their actions and the law, and where no valid conservation measures have been properly applied.

Voluntarily reporting bird electrocutions will not "set up" a utility for prosecution. On the contrary, utility companies who consistently and accurately report bird interactions with their equipment and take the appropriate action to address the hazardous equipment effectively reduce their exposure to legal sanctions. In short, if communication and willingness to cooperatively resolve issues is high, the likelihood of negative consequences resulting from the take will be low.

5. Q: What do I do with bird carcasses?

A: In most USFWS regions, every reasonable effort will be made to salvage eagle carcasses in particular, and other carcasses as necessary. If it is not practical for a Service employee to recover an eagle carcass, as with electrocutions in remote locations, the Service requests the eagle carcass be recovered and turned over to the nearest Service office (and that disposition be noted on the mortality report). Other bird carcasses usually do not need to be salvaged, unless requested by the Service on a case-by-case basis. Generally, if a non-eagle is electrocuted in a populated area, it is better to collect and properly dispose of the bird than leave it lay.

Utility employees who recover bird carcasses and promptly turn them over to the Service will NOT be prosecuted for unlawful possession of migratory birds. Verbal authorization from a Service employee can be obtained but is not required prior to recovering a dead bird (Disposition needs to be noted on the reporting form). However, if a utility wishes to obtain a salvage permit prior to recovering dead or injured migratory birds and eagles,

they can apply and will likely receive a salvage permit in most Regions, including Region 7 (Alaska). A salvage permit does come with conditions, including an annual reporting requirement.

6. Q: What do I do when encountering injured birds?

A: *Injured birds should be reported to the nearest Service office as soon as possible to provide the best chance for treatment and recovery. If a permitted bird rehabilitator is nearby, the rehabilitator can recover the bird directly for treatment. The utility will still need to report the bird injury to the Service Website, and indicate in the disposition field to who the bird was transferred.*

If an injured bird is encountered by a utility employee and it is not practical to have a bird rehabilitator or a Service employee recover the bird, the Service requests the bird be recovered and transferred promptly for treatment. Again, utility employees will NOT be prosecuted for unlawful possession of a migratory bird if they pick up an injured bird and transfer it to a permitted rehabilitator or Service employee or office (disposition needs to be noted on the reporting form). Verbal authorization from a Service employee can be obtained but is not required prior to recovering an injured bird.

7. Q: Are there diseases I can catch from handling carcasses?

A: *Though the chance of catching an avian-borne disease is extremely rare, the chance does exist. Birds should ALWAYS be handled with rubber gloves. Dead birds recovered for the Service should be frozen as soon as possible and remain frozen until transferred.*

8. Q: If a bird is electrocuted do we always have to retrofit the pole?

A: *Not all bird electrocutions or collisions require retrofits to power poles or lines. Conversely, retrofitting only the pole that caused the electrocution may not always be sufficient, because similarly configured poles in the same area may be just as hazardous and attractive to birds as the pole that caused the death or injury. The best approach is to implement a regular maintenance and appropriate retrofitting schedule in accordance with a comprehensive Avian Protection Plan.*

9. Q: If we can't tell that a bird is electrocuted will the USFWS perform a necropsy to determine the cause of death?

A: *In most USFWS regions, there are a few facilities that have the ability to perform a thorough necropsy to help confirm the cause of death. In some cases the entry and exit wounds can also be identified to help determine the mechanism of the electrocution injury. This helps specifically identify the hazardous equipment, and determine an appropriate retrofit action, if applicable.*

For bird fatalities in Alaska, the SeaLife Center in Seward is willing to receive frozen birds and perform a necropsy for a fee. The fee is the responsibility of the electric utility. While the Service does have the capability to perform necropsies, this is only done in criminal cases at the Forensic Lab in Ashland, Oregon.

10. Q: Who will have access to this information?

B: The information will be used by the Service and by the electric utility industry to work towards elimination of bird electrocutions and collisions. It is intended to facilitate a collaborative, cooperative approach to this widespread problem. As with most information collected by a government agency, the information is available for public review through appropriate requests.

11. Q: What will the Fish and Wildlife Service do with this information?

A: The information on bird electrocutions and collisions will be used by the Service primarily to work with the electric industry towards elimination of bird interactions on power equipment. The data will also be available for use as appropriate by Service biologists and others for biological research, management and other purposes.

October 24, 2012

Ms. Jennifer Siani, PhD
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State College, PA 16801
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Jennifer_Siani@fws.gov

**Subject: Biological Assessment for Migratory Birds
Berks County Public Safety Radio System
Albany, Bethel and Exit 19/Blue Mountain Facility Sites
EBI Project No. 61115089**

Dear Ms. Siani:

Attached please find the October 16, 2012 Biological Assessment (BA) prepared by EBI Consulting (EBI) for the above-referenced proposed telecommunication installations. The purpose of this BA was to identify the environmental setting which exists within the Berks County portion of the Blue Mountain – Kittatinny Ridge Important Bird Area, and specifically to evaluate the potential effects of three proposed telecommunication towers on migratory bird resources within this area.

EBI, on behalf of the County of Berks, Pennsylvania respectfully requests your review of the attached BA and comment with respect to the potential effects of the proposed towers on migratory birds. Please note that consultation with your office under Section 7 of the Endangered Species Act (ESA) for these towers has already been completed. Further, per the conversation between your office and Mr. Aaron Goldschmidt of the Federal Communications Commission (FCC), we greatly appreciate your commitment to review and provide comment in no more than 30 days from receipt of this BA.

Please note this BA will also be provided to the FCC as a part of their review of the proposed installations under the National Environmental Policy Act (NEPA).

EBI is an independent contractor, not an employee of Berks County, and its compensation was not based on the findings or recommendations made in the BA or on the closing of any business transaction or an award of any regulatory approval EBI declares that, to the best of our professional knowledge and belief, we meet the definitions of “qualified biologist” as defined under federal regulation. We have the

specific qualifications based on education, training, and experience to assess the biological resources, nature, history, and setting of the Subject Property.

Thank you very much for your assistance in this important and time-sensitive matter. We look forward to hearing from you and please do not hesitate to contact us should you have any questions.

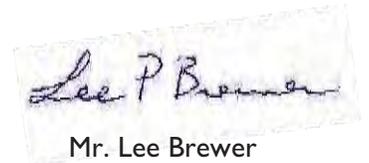
Respectfully submitted,



Mr. Richard Bolton
Author/ Natural Resource Biologist



Mr. Christopher W. Baird
Reviewer/Technical Director, NEPA
Direct# (617) 715-1846



Mr. Lee Brewer
Program Manager

Attachment

BIOLOGICAL ASSESSMENT

FOR THE

BERKS COUNTY PUBLIC SAFETY RADIO SYSTEM

WITHIN THE BLUE MOUNTAIN – KITTATINNY RIDGE IMPORTANT BIRD AREA

BERKS COUNTY, PENNSYLVANIA

PREPARED BY:

EBI CONSULTING
21 B STREET
BURLINGTON, MA 01803

ON BEHALF OF:

COUNTY OF BERKS DEPARTMENT OF EMERGENCY SERVICES
633 COURT STREET
REDDING, PENNSYLVANIA 19603

SUBMITTED TO:

FEDERAL COMMUNICATIONS COMMISSION
445 12TH STREET SW,
WASHINGTON, D.C. 20554

OCTOBER 16, 2012



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Project Information

Project: Berks County Public Safety Radio System
Blue Mountain – Kittatinny Ridge, Important Bird Area #51
Three Proposed Telecommunications Tower Sites in Berks County, PA:
- Albany
- Bethel
- Exit 19 / Blue Mountain

Project Location: Pennsylvania Important Bird Area # 51 within Berks County
Albany Site: 40° 35' 48.8" N / 75° 56' 1.6" W
Bethel Site: 40° 30' 51.6" N / 76° 19' 40.4" W
Exit 19/Blue Mountain Site: 40° 31' 52.1" N / 76° 12' 0.8" W

Lead Federal Agency: Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Applicant: County of Berks Department of Emergency Services
2561 Bernville Road
Reading, PA 19605

Authorized Agent: EBI Consulting
21 B Street,
Burlington, MA 01803
Contact: Lee Brewer
Phone: 717-428-0401 (Ext. 1203)
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Introduction

In accordance with a Federal Communication Commission (FCC) mandate, the County of Berks in the Commonwealth of Pennsylvania (herein, Berks County) is improving their current public safety radio system and complying with a federal mandate regarding “narrowbanding.” The FCC’s narrowbanding mandate requires that all public safety mobile radio systems operating in the 150-512 MHz radio bands must cease operating using 25 kHz efficiency technology and begin using at least 12.5 kHz efficiency technology or be abandoned. Berks County proposes to complete these improvements before the FCC’s imposed deadline of January 1, 2013, when non-narrow banded systems are required to be shut down.

To facilitate the FCC’s narrowbanding requirement, Berks County is constructing a new public safety radio network comprised of a total of 23 separate installation sites, including 20 sites located throughout Berks County, and an additional three sites located just over the Berks County line in adjacent counties. Of the 23 sites, 8 are collocations on existing infrastructure, while the remaining 15 sites have required the construction of new tower facilities. Further, in order to ensure countywide coverage, the proposed improved public safety radio system relies upon three tower facilities along the Blue Mountain-Kittatinny Ridge (BM-KR) to provide service to the northernmost portion of Berks County. Specifically, the three proposed tower sites, which are identified as the ‘Albany,’ ‘Bethel,’ and ‘Exit 19 / Blue Mountain’ sites, are to be located along the BM-KR. These three sites have also been identified as being located within a designated Important Bird Area (IBA).

Pyramid Network Services, on behalf of Berks County, contracted EBI Consulting (EBI) to conduct this Biological Assessment (BA) specifically to evaluate the potential effects of these three tower sites on migratory birds. In preparation of this BA, Mr. Richard Bolton coordinated with the Pennsylvania Audubon Society and the Hawk Mountain Sanctuary, and conducted supplemental research for the preparation of this BA. Both the Pennsylvania Audubon Society and Hawk Mountain Sanctuary provided research material, technical data and field observation records at the request of Berks County. This BA was prepared by Mr. Bolton and provides a concise and detailed description of the existing conditions and an evaluation of potential impacts resultant from the proposed towers to avian resources within the IBA.

The telecommunications facilities within the IBA which Berks County proposes to install and operate are summarized in Table I.

TABLE I

SITE NAME	TOWN	COORDINATES	FACILITY FOOTPRINT*	TOWER HEIGHT
Albany	Albany Township	40°35'48.8" N / 75°56'1.6" W	0.3 acres	199 ft
Bethel	Bethel Township	40°30'51.6" N / 76°19'40.4" W	0.3 acres	250 ft
Exit 19 / Blue Mountain	Wayne Township	40°31'52.1" N / 76°12'0.8" W	0.3 acres	300 ft

*Includes access road and facility.

Environmental Setting

The BM-KR is the geophysical divider between the Great Valley and Appalachian Mountain / Blue Mountain physiographic sections and stretches approximately 185 miles from Franklin County in southern Pennsylvania to Northampton County in eastern Pennsylvania. The National Audubon Society and its Pennsylvania chapter have designated the BM-KR as a migratory bird flyway of global importance. The Pennsylvania Natural Heritage Program (PA NHP) recognizes the BM-KR as an IBA. The BM-KR is important to migratory birds in two primary ways: (i) the ridge is a migratory corridor for numerous migratory bird species, and (ii) the ridge is a high quality rare habitat for forest interior bird species. The location and boundaries of the BM-KR IBA within Berks County is shown in Figure 1 (Appendix A). It is important to note that each proposed tower location is a separate and complete telecommunications facility onto itself. However, for the purposes of discussing the proposed Public Safety Radio System across a landscape level resource (i.e. the BM-KR), this BA looks at the three aforementioned sites from a combined perspective.

The BM-KR as a Migration Corridor

The BM-KR is part of the inland flight line along the Atlantic Flyway. The Atlantic Flyway is a migratory corridor for birds which stretches from the Caribbean and Gulf Coast to the Canadian Maritimes and follows the Atlantic Coast and the Appalachian Mountains. The United States Fish and Wildlife Service (USFWS) has divided the United States into Bird Conservation Regions (BCR), which are the basic units within which all bird conservation efforts are planned and evaluated nationally. The Atlantic Flyway and BCRs in the vicinity of the BM-KR are shown in Figure 2 (Appendix A). The BM-KR is a migration corridor for migrants traveling to and from the following BCRs (as depicted on Figure 2): the Piedmont (29); Appalachian Mountains (28); Atlantic Northern Forests (14); Lower Great lakes / St. Lawrence Plain (13); and Boreal Hardwood Transition (12).

In general terms, with several noted exceptions, most small song birds (e.g. wood warblers, thrushes, verios, flycatchers and sparrows) are nocturnal migrants and most raptors (birds of prey and vultures) are diurnal migrants. Song birds, for the most part, prefer to travel under the cover of darkness presumably to reduce the chance of predation and to rest/forage in habitats similar to their preferred breeding habitat during the day as almost all of these species are day feeders. Hence the vast forest cover of the BM-KR is excellent day time resting/foraging habitat for small song birds headed to northern forested regions.

Raptors, exclusive of owls, for the most part prefer to travel during the day in part to take advantage of thermals and other soaring features. The BM-KR is a topographic feature which creates an area for static soaring during both spring and fall migrations. Static soaring occurs on localized atmospheric updrafts created by wind passing over the ridge (slope soaring) and different heating of the forests on the ridge and the agricultural lands on either side of the ridge (thermal soaring). Hence migratory concentrations of raptors along the BM-KR are common. A prevailing southern wind creates slope soaring opportunities during the spring migration and a prevailing northwest wind creates slope soaring opportunities during the fall migration. Steep slopes perpendicular to these prevailing winds create the strongest updrafts and are identified relative to each proposed tower location in Figure 3 (Appendix A). Thermal soaring features are identified relative to each proposed tower location in Figure 4 (Appendix A).

USFWS research / radar studies have found that 95% of all bird migration takes place below 10,000 feet above mean sea level (AMSL), and that the bulk of that takes place below 3,000 feet AMSL (USFWS 1998). On average, the BM-KR raises the ground elevation by 800-1,000 feet AMSL when cresting the ridge. This rise in AMSL has a corresponding effect on the local ceiling of migrating birds. The favored night traveling altitude of migrating small song birds is believed to be between 500 and 1,000 feet above ground surface (USFWS 1998). Night migrating song birds return to their preferred terrestrial habitats (forest, grassland etc.) to forage and rest every day. Therefore, night migrants have daily dawn descent and evening take-off periods, coinciding with twilight hours, when all of the night migrants are below (0-500 feet above ground surface) the preferred migration altitude. Estimates suggest that 90% of raptors migrating over the BM-KR do so within 2,625 feet (800 meters) of the surface, with the bulk of these – the 25th to 75th percentiles – migrating within 985 feet (300 meters) of the surface during the peak fall migration months of September and October (personal e-mail communication with Hawk Mountain Sanctuary, 2012).

The BM-KR IBA as a landscape feature is largely infrequently broken forest; however there are existing communications towers throughout the BM-KR IBA. Existing registered antenna structures are shown in Figure 5. There are 11 existing registered towers within the Berks/Schuylkill County portion of the IBA. Five of those towers require lighting under Federal Aviation Administration (FAA) regulations, and one of the lighted towers is also a guyed structure. Additionally, there are also numerous un-registered communications towers within the Berks/Schuylkill County portion of the BM-KR IBA. Most towers under 200 feet in height above ground surface are not registered. This study identified 9 unregistered towers within the Berks/Schuylkill County portion of the BM-KR IBA.

Bird Species Which Use the BM-KR

The Migratory Bird Treaty Act (MBTA) protects most birds on the North American continent, including treaty signatories Canada and Mexico, regardless of whether they actually migrate. A list of species protected by the MBTA is found in Title 50, Part 10, of the Code of Federal Regulations. Within the United States, the USFWS is charged with enforcement of the MBTA. Through an amendment to the Fish and Wildlife Conservation Act, the USFWS is mandated to provide lists of non-game migratory birds that, without additional conservation actions, are likely to become candidates for listing under the

Endangered Species Act. In an effort to carry out this mandate, the USFWS published Birds of Conservation Concern in 2008. The overall goal of this report is to accurately identify the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent the USFWS's highest conservation priorities. This report evaluates regional conservation units known as BCRs. The USFWS Division of Migratory Bird Management has listed species of conservation concern in each BCR.

Table 2 lists the USFWS birds of conservation concern which are likely to use the BM-KR as a migratory corridor and the above-referenced BCRs during migration / breeding (see Figure 2).

TABLE 2

Bird Species of Conservation Concern	Bird Conservation Region (BCR)				
	Piedmont	Appalachian Mountains	Atlantic Northern Forests	Great Lakes / St. Lawrence Plain	Boreal Hardwood Transition
Pied-billed Grebe			X	X	X
Horned Grebe			X	X	X
American Bittern			X	X	X
Least Bittern			X	X	
Black-crowned Night-Heron				X	
Bald Eagle	X	X	X	X	X
Peregrine Falcon	X	X	X	X	X
Short-eared Owl	X			X	
Whip-poor-will	X	X			
Yellow Rail			X		X
Loggerhead Shrike	X	X			
Red-headed Woodpecker		X		X	X
Brown-headed Nuthatch	X				
Olive-sided Flycatcher		X	X		X
Bewick's Wren (<i>bewickii</i> ssp.)	X	X			
Sedge Wren	X	X			
Bicknell's Thrush			X		
Wood Thrush	X	X	X	X	X
Golden-winged Warbler		X		X	X
Canada Warbler		X	X	X	X
Blue-winged Warbler	X	X	X	X	
Cerulean Warbler	X	X		X	
Bay-breasted Warbler			X		
Prairie Warbler	X	X			
Swainson's Warbler	X	X			
Kentucky Warbler	X	X			

Bird Species of Conservation Concern	Bird Conservation Region (BCR)				
	Piedmont	Appalachian Mountains	Atlantic Northern Forests	Great Lakes / St. Lawrence Plain	Boreal Hardwood Transition
Worm-eating Warbler		X			
Louisiana Waterthrush		X			
Rusty Blackbird	X	X	X		X
Black-billed Cuckoo					X
Nelson's Sharp-tailed Sparrow			X		
Henslow's Sparrow	X	X		X	
Bachman's Sparrow	X				
Red Crossbill (S. Appalachian pop.)		X			

The BM-KR is used by a variety of different birds seasonally. Table 3 provides a list of bird species, compiled by the Pennsylvania Audubon Society which have been observed during official bird counts or by an Audubon ornithologist in the BM-KR and indicates what season or seasons each species is known to use the area.

TABLE 3

Species	Seasonal Status	Species	Seasonal Status
Snow Goose	M	Swainson's Hawk	FM
Brant	FM	Red-tailed Hawk	YR
Canada Goose	YR	Rough-legged Hawk	M
Mute Swan	W	Golden Eagle	M
Tundra Swan	M	American Kestrel	M
Wood Duck	B	Merlin	M
American Black Duck	M	Peregrine Falcon	M
Mallard	YR	American Coot	FM
Northern Pintail	W	Sandhill Crane	FM
Green-winged Teal	SM	Killdeer	M
Ring-necked Duck	SM	Spotted Sandpiper	M
Lesser Scaup	FM	Solitary Sandpiper	SM
Long-tailed Duck	SM	Greater Yellowlegs	M
Hooded Merganser	SM	American Woodcock	B
Common Merganser	M	Ring-billed Gull	M, W
Ring-necked Pheasant	YR	Herring Gull	M, W
Ruffed Grouse	YR	Great Black-backed Gull	FM
<i>M = Migrant (Spring and Fall); FM = Fall Migrant; YR = Year Round; W = Winter; B = Breeding; SM = Spring Migrant</i>			
<i>* Species not protected under the MBTA.</i>			
Wild Turkey	YR	Caspian Tern	M
Red-throated Loon	FM	Rock Pigeon*	YR
Common Loon	M	Mourning Dove	YR
Double-crested Cormorant	M	Yellow-billed Cuckoo	B

Species	Seasonal Status	Species	Seasonal Status
American Bittern	SM	Black-billed Cuckoo	B
Great Blue Heron	B	Eastern Screech-Owl	YR
Great Egret	M	Great Horned Owl	YR
Green Heron	M	Barred Owl	YR
Black Vulture	YR	Long-eared Owl	W
Turkey Vulture	YR	Northern Saw-whet Owl	M
Osprey	M	Common Nighthawk	M
Mississippi Kite	SM	Eastern Whip-poor-will	B
Bald Eagle	M	Chimney Swift	B
Northern Harrier	M	Ruby-throated Hummingbird	B
Sharp-shinned Hawk	YR	Anna's Hummingbird	W
Cooper's Hawk	YR	Rufous Hummingbird	W
Northern Goshawk	M	Belted Kingfisher	YR
Red-shouldered Hawk	M	Red-headed Woodpecker	M
Broad-winged Hawk	B	Red-bellied Woodpecker	YR
Yellow-bellied Sapsucker	W	Eastern Bluebird	YR
Downy Woodpecker	YR	Veery	B
Hairy Woodpecker	YR	Gray-cheeked Thrush	M
Northern Flicker	YR	Swainson's Thrush	M
Pileated Woodpecker	YR	Hermit Thrush	YR
Olive-sided Flycatcher	M	Wood Thrush	B
Eastern Wood-Pewee	B	American Robin	YR
Yellow-bellied Flycatcher	M	Gray Catbird	B
Acadian Flycatcher	B	Northern Mockingbird	YR
Alder Flycatcher	SM	Brown Thrasher	B
Willow Flycatcher	SM	European Starling*	YR
Least Flycatcher	M	American Pipit	M
Eastern Phoebe	B	Cedar Waxwing	YR
Say's Phoebe	W	Snow Bunting	FM
Great Crested Flycatcher	B	Ovenbird	B
Eastern Kingbird	B	Worm-eating Warbler	B
Northern Shrike	W	Louisiana Waterthrush	B
White-eyed Vireo	B	Northern Waterthrush	SM
Yellow-throated Vireo	B	Blue-winged Warbler	B
Blue-headed Vireo	B	Golden-winged Warbler	M
Warbling Vireo	B	Black-and-white Warbler	B
Philadelphia Vireo	M	Prothonotary Warbler	M
Red-eyed Vireo	B	Tennessee Warbler	M
Blue Jay	YR	Orange-crowned Warbler	M
American Crow	YR	Nashville Warbler	M
<i>M = Migrant (Spring and Fall); FM = Fall Migrant; YR = Year Round; W = Winter; B = Breeding; SM = Spring Migrant</i>			
<i>* Species not protected under the MBTA.</i>			
Fish Crow	YR	Connecticut Warbler	FM
Common Raven	YR	Mourning Warbler	M
Horned Lark	M, W	Kentucky Warbler	B
Northern Rough-winged Swallow	M	Common Yellowthroat	B
Purple Martin	B	Hooded Warbler	B

Species	Seasonal Status	Species	Seasonal Status
Tree Swallow	B	American Redstart	B
Bank Swallow	M	Cape May Warbler	M
Barn Swallow	B	Cerulean Warbler	B
Cliff Swallow	M	Northern Parula	B
Carolina/Black-capped Chickadee	YR	Magnolia Warbler	M
Tufted Titmouse	YR	Bay-breasted Warbler	M
Red-breasted Nuthatch	YR	Blackburnian Warbler	M
White-breasted Nuthatch	YR	Yellow Warbler	B
Brown Creeper	M, W	Chestnut-sided Warbler	B
Carolina Wren	YR	Blackpoll Warbler	M
House Wren	B	Black-throated Blue Warbler	B
Winter Wren	YR	Palm Warbler	M
Blue-gray Gnatcatcher	B	Pine Warbler	B
Golden-crowned Kinglet	M, W	Yellow-rumped Warbler	M
Ruby-crowned Kinglet	M, W	Yellow-throated Warbler	FM
Prairie Warbler	B	Black-throated Green Warbler	B
Canada Warbler	B	Wilson's Warbler	M
Yellow-breasted Chat	B	Eastern Towhee	YR
American Tree Sparrow	M, W	Chipping Sparrow	B
Clay-colored Sparrow	FM	Field Sparrow	YR
Savannah Sparrow	M	Grasshopper Sparrow	M
Fox Sparrow	M, W	Song Sparrow	YR
Lincoln's Sparrow	M	Swamp Sparrow	M
White-throated Sparrow	M, W	White-crowned Sparrow	M
Dark-eyed Junco	M, W	Scarlet Tanager	B
Northern Cardinal	YR	Rose-breasted Grosbeak	B
Blue Grosbeak	SM	Indigo Bunting	B
Bobolink	M	Red-winged Blackbird	M
Eastern Meadowlark	M	Rusty Blackbird	M
Common Grackle	B	Brown-headed Cowbird	B
Orchard Oriole	B	Baltimore Oriole	B
Pine Grosbeak	FM	Purple Finch	M, W
House Finch	YR	Red Crossbill	W
White-winged Crossbill	W	Common Redpoll	W
Pine Siskin	M, W	American Goldfinch	YR
Evening Grosbeak	M	House Sparrow*	YR

M = Migrant (Spring and Fall); FM = Fall Migrant; YR = Year Round; W = Winter; B = Breeding; SM = Spring Migrant
* Species not protected under the MBTA.

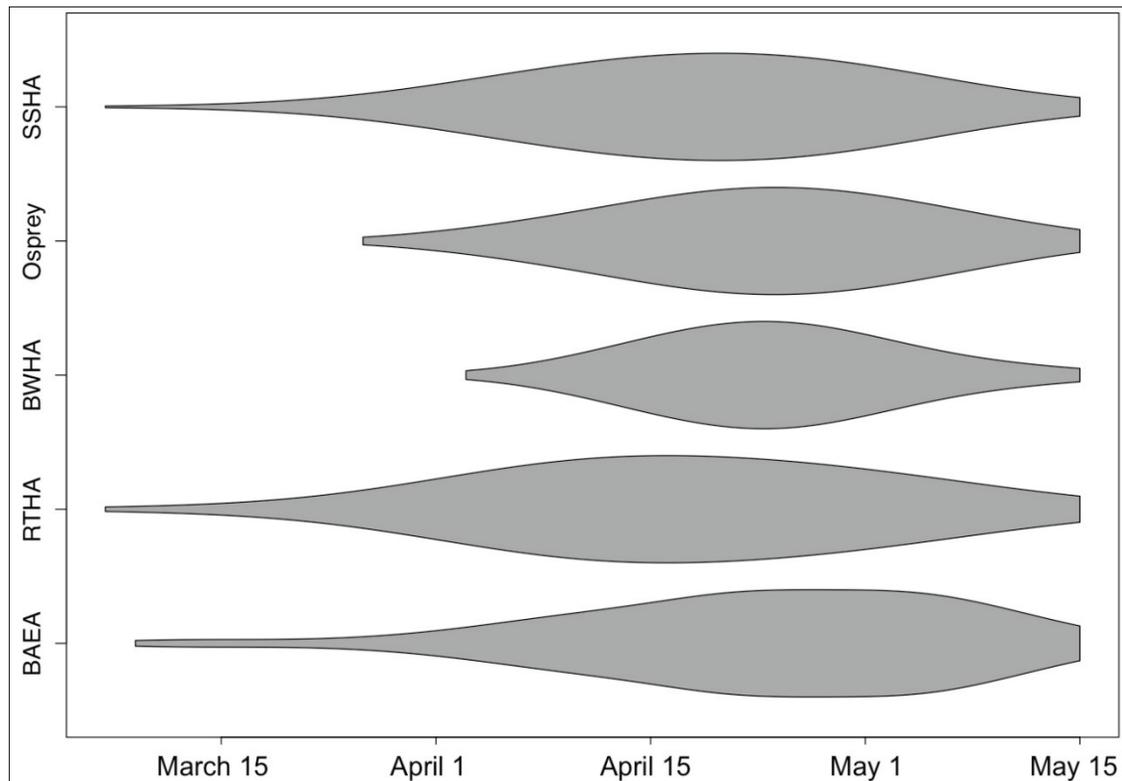
Fall raptor migration takes place from August 15th through December annually. The peak migration periods for each raptor species routinely observed during the fall migration are provided in Table 4. Peak migration periods can represent upwards of 75% of the total number of migrating individuals for a certain species. For other species however, 50% of the number of individuals may trickle by Hawk Mountain in lower numbers over a few months.

TABLE 4

Raptor Species	Peak Fall Migration Period*	Average # of birds/ fall migration	Record one day peak
Osprey	September 15 - 30	401	187
Bald Eagle	September 1 - 14	81	48
Northern Harrier	October 15 - 31	226	36
Sharp-shinned Hawk	September 15 - October 14	4,367	2,475
Cooper's Hawk	October 1 - 14	385	204
Goshawk	November 15 - 30	47	64
Red-shouldered Hawk	October 15 - 31	268	148
Broad-winged Hawk	September 1 -30	8,085	21,448
Red-tailed Hawk	October 15 - November 14	3,277	1,144
Rough-legged Hawk	November 1- 14 and December 1- 14	9	7
Golden Eagle	November 1- 14	61	31
American Kestrel	September 1 - 30	400	168
Merlin	October 1 - 14	59	49
Peregrine Falcon	October 1 - 14	29	31
Black Vulture	Not Available	270	85
Turkey Vulture	Not Available	59	300
<i>* Based on 60 years of data</i>			

The timing of raptor spring migration for selected species as observed by Hawk Mountain Sanctuary is provided in Table 5. All of the species which regularly migrate past Hawk Mountain in the fall are also likely to use the BM-KR for spring migration.

TABLE 5



SSHA = Sharp Shinned Hawk, BWHA = Broad Winged Hawk, RTHA = Red Tailed Hawk, BAEA = Bald Eagle

Forest Interior Breeding Habitat

The BM-KR is a nearly contiguous corridor of forested habitat. The extensive, lightly fragmented forest habitat which exists on the ridge provides song bird breeding habitat – specifically forest interiors. Forest interior habitat is described as any area of forested cover that has 300 feet of forested buffer from another cover type (Jones, McCann and McConville 2000). Forest interior habitat is critical to several species of neotropical migrants whose populations have been identified as birds of conservation concern by the USFWS. Within the BM-KR, many large blocks of forested habitat are considered core habitat and provide forest interior breeding season habitat required to support several species of conservation concern. The forest interior blocks associated with the BM-KR are measured in square miles. These large blocks are core habitats and support higher nesting densities, and by proximity, improve the quality of smaller nearby blocks. Forest interior blocks within the Berks County section of the BM-KR IBA are shown in Figure 6 (Appendix A).

The following species have been documented breeding in the Berks-Schuylkill County portion of the Kittatinny Ridge by Pennsylvania Audubon Society and are dependent upon forest interior habitat. Some of these species may be found in smaller forests, but may not be as productive in such habitats. These species include: Broad-winged Hawk, Acadian Flycatcher, Veery, Hermit Thrush, Wood Thrush, Ovenbird, Worm-eating Warbler, Louisiana Waterthrush, Kentucky Warbler, Hooded Warbler,

Cerulean Warbler, Black-throated Blue Warbler, Black-throated Green Warbler, Canada Warbler and Scarlet Tanager. Table 6 lists the Birds of Conservation Concern which are considered reliant on forest interior breeding habitat.

TABLE 6:

Bird Species of Conservation Concern	Piedmont	Appalachian Mountains
Whip-poor-will	X	X
Wood Thrush*	X	X
Cerulean Warbler*	X	X
Swainson's Warbler	X	X
Worm-eating Warbler*		X
Kentucky Warbler*	X	X
Louisiana Waterthrush*		X
<i>*Observed by Pennsylvania Audubon Society breeding within the BM-KR.</i>		

Tower Siting and Design

Discussion of Tower Site Selection and Design

The following discussion regarding the site selection process is an excerpt from an April 2012 'Alternatives Analysis' report prepared by L.R. Kimball & Associates on behalf of the Berks County Department of Emergency Services.

Within a countywide public safety system, each remote site must provide two distinct end products in order to function as an effective component within the overall design: coverage and connectivity. A site that is unable to provide this critical combination is not considered a viable candidate. The sum of the combined coverage from all of the system's sites is specified to provide usable radio coverage to not less than 95% of the entire physical landmass of Berks County. Each site utilizes a unique combination of frequency band specific antennas which transmit or receive wireless radio signals. The primary Berks County system, being in the 700 MHz band, generally affords a coverage area within a six to eight mile radius, located immediately around any given site. This coverage provides the actual means to communicate for the first responders operating within that specific area. Simultaneously, licensed microwave frequencies provide the point to point connectivity which ties the constellation of remote sites together into a single radio system. Microwave paths require unobstructed lines of sight to provide the connecting link between any two remote sites. This connectivity also provides a certain level of redundancy, enabling the radio system to retain functionality even if forced to overcome the loss of an individual site within a microwave connected loop.

Please refer to Appendix D for copies of the aforementioned 'Alternatives Analysis' report, as well as a 'Candidate Site Summaries for Blue Mountain' report, for further details regarding the process through which potential tower locations were evaluated.

Discussion of USFWS Interim Recommended Guidelines

The USFWS has issued interim recommended guidelines for communications tower siting, construction, operations, and decommissioning. These recommendations and a discussion of each (*in italic font*) as they pertain to these proposed towers are as follows:

- I. Any company/applicant/licensee proposing to construct a new communications tower should be strongly encouraged to collocate the communications equipment on an existing communication tower or other structure (e.g., billboard, water tower, or building mount). Depending on tower load factors, from 6 to 10 providers may collocate on an existing tower.

The closest existing towers do not allow for collocation for one or more of the following reasons:

- *The equipment which would be mounted on the tower exceeds the structural load allowed for that tower;*

- *The vertical elevations required for operating the proposed equipment are already occupied or are non-existent (the towers are too short); and/or*
- *The proposed and existing telecommunications equipment are incompatible because they operate on the same band range of radio frequencies and would interfere with each other's operation.*
- *The feasibility of replacing existing, nearby, third party-owned towers with new, larger towers to accommodate collocations was also considered by Berks County. However, in consideration of the demolition costs for an existing tower, the relative increase in size of the replacement tower required to accommodate the collocation (which would have increased the cost for the tower and the threat to migratory birds), and the lease costs associated with collocating on the third party-owned tower, the overall costs to Berks County taxpayers and additional threat to migratory birds were ultimately deemed too high.*

2. If collocation is not feasible, and a new tower or towers are to be constructed, communications service providers should be strongly encouraged to construct towers no more than 199 feet above ground level (AGL), using construction techniques which do not require guy wires (e.g., use a lattice structure, monopole, etc.). Such towers should be unlighted if Federal Aviation Administration regulations permit.

All three proposed towers (Albany, Bethel, and Exit 19 / Blue Mountain) are self-supporting lattice structures with no guyed wires required. Two of the proposed towers (Bethel and Exit 19 / Blue Mountain) are required to exceed 199 feet (250 and 300 feet, respectively) to facilitate the necessary line-of-sight operational requirements for microwave dish equipment to be used, to provide vertical space for the mounting of system antennas, and to elevate those antennas to the heights necessary for designed system performance. The remaining proposed tower site (Albany) will be 195 feet high. A 4-foot lightning rod will also be affixed to the tops of all three towers.

3. If constructing multiple towers, providers should consider the cumulative impacts of all of those towers to migratory birds and threatened and endangered species as well as the impacts of each individual tower.

This BA addresses the potential impact to migratory birds resultant from both the cumulative impacts of all three proposed towers to the BM-KR and each tower individually.

4. If at all possible, new towers should be sited within existing "antenna farms" (clusters of towers). Towers should not be sited in or near wetlands, other known bird concentration areas (e.g., state or Federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fog, mist, and low ceilings.

All three proposed towers are located within an Important Bird Area (IBA #51) associated with the BM-KR. The BM-KR is recognized as an important migratory flight line along the Atlantic Flyway because this

physical landscape feature attracts concentrated numbers of migrating birds. The BM-KR is prone to a high incidence of fog, mist, and low ceilings. The FCC has no set definition of a “tower farm;” however, the authors of this BA acknowledge that the proposed towers were specifically sited adjacent to existing towers to share utility resources and possibly minimize other types of impacts although not specifically targeting or attempting to create tower farms.

The proposed Albany facility is approximately 200 feet southeast from the nearest communications facility, which consists of a 90-foot tall self-supporting steel lattice tower which is not guyed, nor lighted. The next closest facilities are miles away. Forest impacts are further limited due to the ability to share the existing access road and utility pathway leading to the site.

The proposed Bethel facility is approximately 260 feet northeast of a 170-foot tall unlighted, guyed tower; 175 feet southeast of a 180-foot tall unlighted, guyed tower; 0.44 miles southeast of a 188-foot tall unlighted, guyed tower; and 0.81-mile east of a 90-foot tall unlighted, un-guyed tower. Forest impacts are further limited due to the ability to share the existing access road and utility pathway leading to the area of the site. The existing road and utilities end approximately 275’ away from the proposed site.

The Exit 19 / Blue Mountain facility is approximately 315 feet northeast of a 180-foot tall unlighted, un-guyed tower; 0.23-miles southwest of a 260-foot tall lighted, guyed tower; 0.48-miles northeast of a 330-foot tall lighted, un-guyed tower; and 0.71-miles northeast from a 100-foot tall unlighted, guyed tower (to be removed following the construction of the proposed Berks County tower). Forest impacts are further limited due to the ability to share the existing access road and utility pathway leading to the site.

5. If taller (>199 feet AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless otherwise required by the FAA, only white (preferable) or red strobe lights should be used at night, and these should be the minimum number, minimum intensity, and minimum number of flashes per minute (longest duration between flashes) allowable by the FAA. The use of solid red or pulsating red warning lights at night should be avoided. Current research indicates that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights. Red strobe lights have not yet been studied.

The proposed Albany tower is 195 feet tall (199 feet including lightening rod) and requires no lighting. The proposed Bethel and Exit 19 / Blue Mountain towers are 250 feet and 300 feet tall respectively (254 and 304 feet with lightening rods), and require lighting. The FAA has determined that both of these towers require a medium intensity dual (white and red) lighting system consistent with FAA Advisory circular 70/7460-1 Change 2, Obstruction Marking and Lighting, a medium intensity dual system – Chapters 4, 8(M-Dual), and 12. This system consists of a flashing white beacon (top) during daylight and twilight hours, and a red flashing beacon (top) and solid red lights halfway down the tower during nighttime hours. The lighting proposed for these two towers is the minimum package authorized by the FAA for deployment at these sites. As of the writing of this document, the County continues to investigate the possible use of flashing L-810 (mid-level) lamps, but is having difficulty sourcing these lights commercially. Also, per an October, 2012 email communication from Federal Aviation Administration National Program Manager,

Obstruction Evaluation Sheri Edgett-Baron, at present the FAA Has not been able to finalize the technical specifications for such a lighting package.

6. Tower designs using guy wires for support which are proposed to be located in known raptor or waterbird concentration areas or daily movement routes, or in major diurnal migratory bird movement routes or stopover sites, should have daytime visual markers on the wires to prevent collisions by these diurnally moving species.

For guidance on markers, see *Avian Power Line Interaction Committee (APLIC). 1994. Mitigating Bird Collisions with Power Lines: The State of the Art in 1994. Edison Electric Institute, Washington, D.C., 78 pp.*, *Avian Power Line Interaction Committee (APLIC). 1996. Suggested Practices for Raptor Protection on Power Lines. Edison Electric Institute/Raptor Research Foundation, Washington, D.C., 128 pp.* *Avian Power Line Interaction Committee (APLIC). 2006. Mitigating Bird Collisions with Power Lines: The State of the Art in 2006. Edison Electric Institute, Washington, D.C., 207 pp* (available online as a PDF). Copies can be obtained via the Internet at <http://www.aplic.org/>, or by calling 1-800-334-5453.

None of the three proposed towers (Albany, Bethel, Exit 19 / Blue Mountain) require guy wires. Further, the proposed Exit 19 / Blue Mountain tower will replace both an existing 120-foot un-guyed tower currently in the same location, and a 100-foot guyed tower currently located 0.71 miles southwest of the proposed Exit 19 / Blue Mountain site. Equipment currently mounted on the existing towers to be demolished, will be relocated to the proposed Exit 19 / Blue Mountain tower upon completion. The result will be a net removal of one guyed tower.

7. Towers and support facilities should be sited, designed and constructed so as to avoid or minimize habitat loss within and adjacent to the tower “footprint.” However, a larger tower footprint is preferable to the use of guy wires in construction. Road access and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance, and to reduce above ground obstacles to birds in flight.

All three proposed sites are located very close to an existing road. The Exit 19 / Blue Mountain site is located immediately adjacent to an existing access road, and the Albany site leverages an existing access road to the top of the mountain which requires only a very short driveway off that road (approx. 100 feet). The Bethel site is within 85 feet of an existing public road but grading and property lines require access from another end of the parcel resulting in a new driveway approximately 250 feet in length across a parcel that is already surrounded by residential lots. The Albany and Bethel sites require the clearing of undisturbed natural land; however, they are self-supporting, un-guyed towers and thus do not require additional clearing of ground space for guy wires and associated anchors. The proposed Exit 19 / Blue Mountain site reuses an existing access road and facility. The proposed Exit 19 / Blue Mountain improvement expands the facility by approximately 6,400 square feet into undisturbed natural land. The proposed Exit 19 / Blue Mountain facility will have a 0.1-acre impact on a 563-acre forest interior block. The proposed Albany site will have 0.3-acre impact on a 22.84-square mile (14,618-acre) forest interior block. The proposed Bethel facility is within a residential area and will not have direct impacts on any forest interior block. All forest interior block impacts result from the creation of new edge habitat by expanding existing non forested areas.

8. If significant numbers of breeding, feeding, or roosting birds are known to habitually use the proposed tower construction area, relocation to an alternate site should be recommended. If this is not an option, seasonal restrictions on construction may be advisable in order to avoid disturbance during periods of high bird activity.

The towers are located atop a ridge which is within an important migration flyway and corridor of extensive, lightly fragmented forest. Spring migration takes place from April 1st through June 1st. The breeding season takes place from June 1st through August 15th. The majority of fall migration takes place from August 15th through October 31st. No seasonal restrictions regarding the construction of these towers are planned for because: (a) excluding construction to seasons outside of migration and breeding is not consistent with the time sensitive objectives of the project (i.e. FCC mandated deadlines and avoidance of interruptions to public safety radio coverage); (b) the surrounding suitable habitats (square miles) are vast enough to buffer the temporary impacts associated with construction (tenths of acres); and (c) construction will take place mainly during daylight hours and small song bird migration takes place primarily during twilight. Although the condition does not exist as a result of schedule design, the current project schedule reflects the construction of these sites taking place between October and April during the least impactful season.

9. In order to reduce the number of towers needed in the future, providers should be encouraged to design new towers structurally and electrically to accommodate the applicant/licensee's antennas and comparable antennas for at least two additional users (minimum of three users for each tower structure), unless this design would require the addition of lights or guy wires to an otherwise unlighted and/or un-guyed tower.

All three proposed towers are designed to support multiple collocations; however, information regarding the total space available for future collocators is currently undetermined as it is dependent upon the engineering requirements of such collocations. At present, antennas currently mounted on two existing towers are proposed to be moved to the Exit 19 / Blue Mountain tower upon completion. These towers, which are currently located (i) in the location of the proposed Exit 19 / Blue Mountain tower site, and (ii) approximately 0.71 miles southwest from the proposed Exit 19 / Blue Mountain tower site. Each of these towers will be removed, resulting in a net removal of one tower.

10. Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site.

The proposed security lighting for on-ground facilities is low output lighting (5 and 30 watt lights) and motion sensor activated. This will minimize the use of lighting as the facility will be rarely lighted. Final design plans will make every effort to down shield facility lighting.

11. If a tower is constructed or proposed for construction, Service personnel or researchers from the Communication Tower Working Group should be allowed access to the site to evaluate bird use, conduct dead-bird searches, to place net catchments below the towers but above the ground, and to place radar, Global Positioning System, infrared, thermal imagery, and acoustical monitoring equipment as necessary to assess and verify bird movements and to gain information on the impacts of various tower sizes, configurations, and lighting systems.

Service and research personnel associated with the Communication Tower Working Group will be allowed access to the tower sites in order to study the effects of the proposed tower with regard to migratory birds. Activities that are not inconsistent with the intended purpose of the sites (public safety radio) will be permitted.

12. Towers no longer in use or determined to be obsolete should be removed within 12 months of cessation of use.

This project involves the proposed construction of new towers. Impact analysis does not apply to this criterion.

Potential Effects

The BM-KR coincides with the northern border of Berks County, Pennsylvania, and particularly the towns of Bethel, Upper Tulpehocken, Upper Bern, Tilden, Windsor and Albany (from west to east). Three of the tower locations proposed by the County of Berks Public Safety Radio System Project are within IBA #51 along the BM-KR, as identified by the Pennsylvania Natural Heritage Program (PA NHP). Because these three proposed towers occur within an IBA as designated by PA NHP, direct and indirect impacts to migratory bird habitat are specifically being addressed in depth relative to the migratory corridor and breeding habitat functions of the BM-KR.

Direct and Indirect Effects of Individual Facilities

Albany

The physical foot print of the proposed Albany facility would permanently convert approximately 0.3 acres of forest interior buffer to non-forested cover. Consequently 0.3 acres of forest interior habitat would be lost as a result of the proposed project. The existing forest interior block which would be impacted is approximately 22.84 square miles in size. The proposed Albany facility is located near the ridge on a south facing slope adjacent to a spring migrating slope soaring feature, as shown in Figure 3. The proposed 195-foot tower (199 feet including lightning rod) is taller than the surrounding trees and extends into the updraft zone of a prevailing south wind. This tower will present a new hazard to spring migrating birds which ride southerly updrafts at this locality along the BM-KR. There were no thermal soaring features identified within one mile of the proposed Albany facility so impact analysis for thermal soaring features does not apply to the site. The proposed tower height extends approximately 100 - 120 feet above the level of any forest canopy height which could exist in the vicinity of the tower during the tower's lifetime. This range is within the twilight migratory flight altitude, but not within the night travel altitude range of night migrating small song birds in addition to raptors and other day migrants. However, the proposed tower would not be lighted and would not become an attractant or false navigation feature to passing night migrants.

Bethel

The physical foot print of the proposed Bethel facility would permanently convert approximately 0.3 acres of forest to non-forested cover. No impacts to forest interior or forest interior buffer would

result because the site is located between residential lots. The proposed Bethel facility is located adjacent to an 8.81-square mile forest interior block. The proposed Bethel facility is located near the ridge on a south-facing slope adjacent to a spring migrating slope soaring feature, as shown in Figure 3. The proposed 250-foot tower (254 feet including lightening rod) is taller than the surrounding trees and extends into the updraft zone of a prevailing south wind. This tower will present a new hazard to spring migrating birds which ride southerly updrafts at this locality along the BM-KR. There were no thermal soaring features identified within one mile of the proposed Bethel facility so impact analysis for thermal soaring features does not apply to the site. The proposed tower height extends approximately 150 - 170 feet above the level of any forest canopy height which could exist in the vicinity of the tower during the tower's lifetime. This range is within the twilight migratory flight altitude, but not within the night travel altitude range, of night migrating small song birds in addition to raptors and other day migrants. The proposed tower will require a medium intensity dual (white and red) lighting system consistent with FAA Advisory circular 70/7460-1 Change 2, Obstruction Marking and Lighting, a medium intensity dual system – Chapters 4, 8(M-Dual), and 12. This system consists of a flashing white beacon (top) during daylight and twilight hours, and a red flashing beacon (top) and solid red lights halfway down the tower during nighttime hours. The lighting proposed for this tower is the minimum package authorized by the FAA for deployment at this site. As such, only the top-mounted white light will be in operation during daylight and twilight hours, the time when night migrating song birds are most active at low altitudes. White lights have been shown to be least attractive to birds. The top-mounted red flashing light and mid-tower steady red light will only be in operation during nighttime hours, when the birds are migrating. As such, while red lights have been shown to be more attractive to night migrating song birds, their use will be limited only to portions of the day when the majority of migrant traffic is above 500 feet, and avoiding portions of the day when migrant traffic is at low / near tower altitudes.

Exit 19 / Blue Mountain

The proposed location of the Exit 19 / Blue Mountain tower is on land currently owned by the Pennsylvania Game Commission. The physical footprint of the proposed Exit 19/Blue Mountain facility would permanently convert approximately 0.1 acres of forest to non-forested cover. Consequently 0.1 acres of forest interior habitat would be lost as a result of the proposed project. The existing forest interior block which would be impacted is approximately 0.88 square miles in size. The proposed Exit 19/Blue Mountain facility is located on the ridge within a plateau section of the BM-KR and is not associated with a slope soaring feature, as shown in Figure 3. Therefore, impacts associated with slope soaring features do not apply to the site. There is a thermal soaring feature associated with managed / cleared game lands approximately ½-mile north of the proposed tower site. This tower will present a new hazard to birds which ride thermal updrafts at this locality along the BM-KR. The proposed tower height extends approximately 200-220 feet above the level of any forest canopy height which could exist in the vicinity of the tower during the tower's lifetime. This range is within the preferred migratory flight altitude of night migrating small song birds in addition to raptors and other day migrants. The proposed tower will require a medium intensity dual lighting (white and red) system consistent with FAA Advisory circular 70/7460-1 Change 2, Obstruction Marking and Lighting, a medium intensity dual system – Chapters 4, 8(M-Dual), and 12. This system consists of a flashing white beacon (top) during daylight and twilight hours, and a red flashing beacon (top) and solid red lights halfway down the tower during nighttime hours. The lighting proposed for this tower is the minimum package authorized by the FAA for deployment at this site. As such, only the top-mounted white light will be in operation during

daylight and twilight hours, the time when night migrating song birds are most active at low altitudes. White lights have been shown to be least attractive to birds. The top-mounted red flashing light and mid-tower steady red light will only be in operation during nighttime hours, when the birds are migrating. As such, while red lights have been shown to be more attractive to night migrating song birds, their use will be limited only to portions of the day when the majority of migrant traffic is above 500 feet, and avoiding portions of the day when migrant traffic is at low / near tower altitudes.

Cumulative Effects

This part of the document assesses the potential combined or cumulative impacts of adding all three proposed towers into the spatial arrangement of towers which already occur in the Berks / Schuylkill County portion of the BM-KR IBA from the context of a concentrated migratory bird corridor and forest interior habitat core.

There is no formal or official definition of an “antenna farm” or “tower cluster” provided by the FCC, FAA, or USFWS. However, the authors of this BA recognize the intent of siting communications towers with respect to migrating birds, nocturnal birds in particular, is to minimize the navigational attractiveness of towers to migrant flocks. Grouped towers, with less lighting, take up less of the night sky and let migrant flocks obey natural navigational cues. This result is preferential to intermittently spaced, individual, well lighted towers, which act as repetitive chances for attraction and navigational miscues along a migratory corridor.

Albany

The proposed Albany facility is approximately 200 feet southeast from the nearest communications tower facility. This facility consists of a 90-foot tall self-supporting steel lattice tower which is not guyed and is not lighted. The next closest facilities are over 2 miles away. Since neither the proposed tower nor the existing nearby tower will be/are lighted, impacts of this tower group on nocturnal migrants are minimal.

This tower group is near a southerly wind-driven slope soaring feature. Nearly all of the published studies on the subject of migratory bird impacts from communications towers center around the effects of lighting on night migrants. No published study specifically addresses the effects of communications towers positioned near concentrated static soaring features on diurnal migrants. The qualities surrounding soaring features are markedly different from night migration and remain unidentified. A cautious presumption is that diurnal migrating birds – especially those that soar – fly during the day when lighting, cloud ceilings, and fog are not problematic even in inclement weather. Diurnal migrating raptors are renowned for their eyesight. Therefore, is it possible that these groups might not be particularly impacted by the presence of communications towers when migrating, as they are aware of their surroundings. Hunting raptors have been recorded flying into guy wires supposedly because their focus is on ground level prey and not flight level structures (U. and H. Kingery, 1999). The proposed tower will not be guyed and the existing tower is not guyed thereby avoiding impacts resulting from guy wires.

While the cumulative impact of the proposed Albany and existing tower may amount to a reduction in quality of the spring migration corridor for raptor and other bird species which soar in this locality of the BM-KR IBA, the degree of the impact is highly speculative, and not likely to be significant.

Bethel

The proposed Bethel facility positions a lighted tower within close proximity (300 feet) of two unlighted, guyed towers. This tower group is near a southerly, wind-driven, slope soaring feature. No published study specifically addresses the effects of communications towers positioned near concentrated static

soaring features on diurnal migrants. A cautious presumption is that diurnal migrating birds – especially those that soar – fly during the day when lighting, cloud ceilings, and fog are not problematic even in inclement weather. Diurnal migrating raptors are renowned for their eyesight. Therefore, is it possible that these groups might not be particularly impacted by the presence of communications towers when migrating, as they are aware of their surroundings. The proposed tower is not guyed; however, the two nearby towers are guyed. The proposed tower avoids daytime guy wire impacts. The addition of the Bethel tower may reduce the quality of spring migrating soaring in this locality.

The addition of a lighted tower, an attractant to nocturnal migrants, in close proximity to existing unlighted, guyed towers, which published studies and other observations have shown to have more severe impacts, presents a more complex situation for nocturnal migrants and possibly additive impacts beyond the existing unlighted tower group. The addition of the Bethel tower has the potential for attracting nocturnal migrants into a more hazardous group containing guyed towers, even though the proposed tower would be minimally lighted with only a white flashing light on top (250 feet) during daylight and twilight hours. The proposed tower will be lighted with a red flashing light on top (250 feet) and solid red light halfway up the tower during the night, peak migration hours. Solid red lights have been shown to be most attractive to migrating birds. The height of the solid red light (~126 feet) is consistent with the vicinity of guy wires from a 180-foot tall tower, located approximately 175 feet away, and guy wires from a 170-foot tall tower, located approximately 260 feet away. The only factor which minimizes the attractive solid red light / guy cable hazard combination is that this zone exists beneath 200 feet above ground surface which is 300 feet lower than the preferred migration altitude for most night migrating species.

As a result, the cumulative impact of the proposed Bethel tower within the group of existing towers possesses a higher potential for more notable impacts on the quality of the corridor for night migrating song birds as compared to any other bird group which uses the IBA.

Exit 19 / Blue Mountain

The proposed Exit 19 / Blue Mountain facility is a repurposed or expanded site in that an existing 120-foot tower is currently located at the site of the proposed tower. The proposed installation calls for the removal and replacement of the existing 120-foot tall un-guyed, unlighted tower, with a proposed 300-foot tall, un-guyed, lighted tower. Further, a 100-foot guyed tower located approximately 0.71 miles to the southwest will also be demolished and the antennas/equipment from it will be relocated to the proposed 300-foot tall tower. The result is a net reduction in the number of towers and the net removal of one guyed tower. The near tower group, which consists only of the proposed 300-foot tall, un-guyed, lighted tower and an existing 180-foot tall, un-guyed, un-lighted tower located approximately 315 feet to the southwest, presents a new strike hazard to migratory birds because a lighted tower and un-lighted tower are in such close proximity. However, the actual bird strike hazard of this tower group is minimized because neither of the towers have guy wires and the lighted tower is below 500 feet thereby avoiding a zone of increased migration activity and bird strike potential. A far tower group, consisting of the 300-foot tall proposed tower and a 260-foot tall, guyed, lighted tower approximately ¼-mile to the east of the proposed tower, create a more complex situation respective of red light attraction (on both towers), and migratory navigation miscues. Published research trends indicate that this new red light alignment in the night's sky has the potential to reduce the quality of the migratory

corridor, however the degree of this potential impact is unknowable at this time. The new 300-foot tower lighting would be lighted with a top-mounted white light during daylight and twilight hours which minimizes the attractiveness of the tower, and tower group, when migrating song birds are known to use low altitudes and terrestrial habitats. The tower group of the 300-foot lighted tower and 180-foot tower are anticipated to be minimal because both towers are un-guyed and minimally attractive during periods when migrating song birds are known to use low altitudes and terrestrial habitats.

This tower group is not associated with any static soaring features but is approximately ½-mile west of a thermal soaring feature and approximately 0.25 miles southwest of a 260-foot tall guyed, lighted tower. The proposed 300-foot tall un-guyed tower is approximately twice the distance west of the static soaring feature as an existing 260-foot tall guyed tower. Therefore the affect of the proposed tower is anticipated to be minimal. A cautious presumption is that diurnal migrating birds – especially those that soar – fly during the day when lighting, cloud ceilings, and fog are not problematic even in inclement weather. Diurnal migrating raptors are renowned for their eyesight. Therefore, these groups might not be particularly impacted by the presence of communications towers when migrating and aware of their surroundings.

Determination of Effect

The significance of the small song bird migrants of the BM-KR should not be understated. This group is composed of the species groups (e.g. wood warblers, verios, thrushes flycatchers and sparrows) which studies have been shown to suffer the highest mortality from the effects of communications towers (Land Protection Partners, 2005) and are also comprised of many neotropical migrant species which are dependent upon forest interior habitats. As such, the welfare of these species populations is disproportionately dependent on the presence of forest interior habitat for breeding (Pennsylvania Audubon, 2010) and presumably as a suitable migratory corridor. This portion of the BM-KR corridor already has multiple communications towers throughout and the proposed project (i.e. three new towers) would result in a net addition of one more tower (i.e. two existing towers will also be removed) to the corridor. With respect to nocturnal migrants, two more lighted towers would be added to their flight map, though the trend indicated by published studies shows these towers are of less attraction because red light exposure at altitudes above 500 feet is minimized and by avoiding the use of guys on new towers.

The proposed project would add two lighted towers (Bethel and Exit 19 / Blue Mountain) to a recognized small song bird migration corridor, which will result in some impacts to the quality of the BM-KR as a continuous wildlife corridor. The current body of research on this topic clearly points to reduced quality but is unable to quantify or measure the level of the potential impact. The small body of published research on this topic maintains a trend that avian mortality impacts rise with increased tower heights, the use of guy wires, and lighting arrangements which feature red solid, red flashing, white solid and white flashing lights, in order of most to least attractive to nocturnal migrants. With respect to tower heights and use of guy wires, the 199-foot, 250-foot, and 300-foot heights of the proposed un-guyed towers avoid more severe bird mortality impacts associated with towers greater than 500 feet. With respect to lighting arrangements, the potential for impacts exists at the Bethel tower group because a new lighted attractant, even a minimal one, is situated within a tower group with existing guy

wire hazards. The degree of impacts resulting from adding lights to both tower groups is unknowable, however trends suggest a reduction in the quality of the nocturnal migratory corridor. Fewer impacts are anticipated by adding a lighted tower at Exit 19/ Blue Mountain because lighting and tower group hazards are at a minimum.

The Albany tower is adjacent to a slope soaring feature and is possibly a concentrated locality of raptor activity. The effects of these combined conditions is not known and is unrepresented in the literature. The proposed project will likely have some, though a presently unknowable, degree of impact to the migratory bird qualities of the BM-KR IBA.

Efforts to avoid and minimize the potential for impacts to migratory birds while maintaining the coverage and connectivity objectives of the proposed project were considered during siting of individual communications facilities and design of towers. The BM-KR IBA is a landscape scale feature which spans tens of square miles across the entire northern portion of Berks County, and achieving the objectives of the proposed public safety communications system project will require some impacts within the IBA as evidenced by the April, 2012 Alternates Analysis provided to the FCC.

The forest interior habitat impacts associated with the proposed project total 0.7 acres across a portion of the BM-KR where the average forest interior size is 9.87 square miles (6,317.7 acres). The direct, indirect, and cumulative impacts to forest interior habitat resulting from the proposed project will likely have no adverse effect on the quality of the BM-KR as a core forest interior breeding habitat.

References

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FIGURES

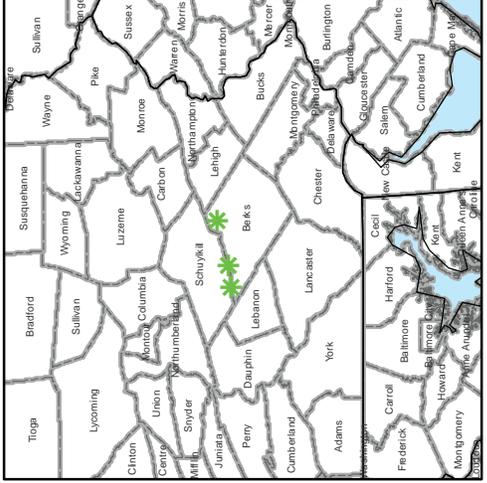
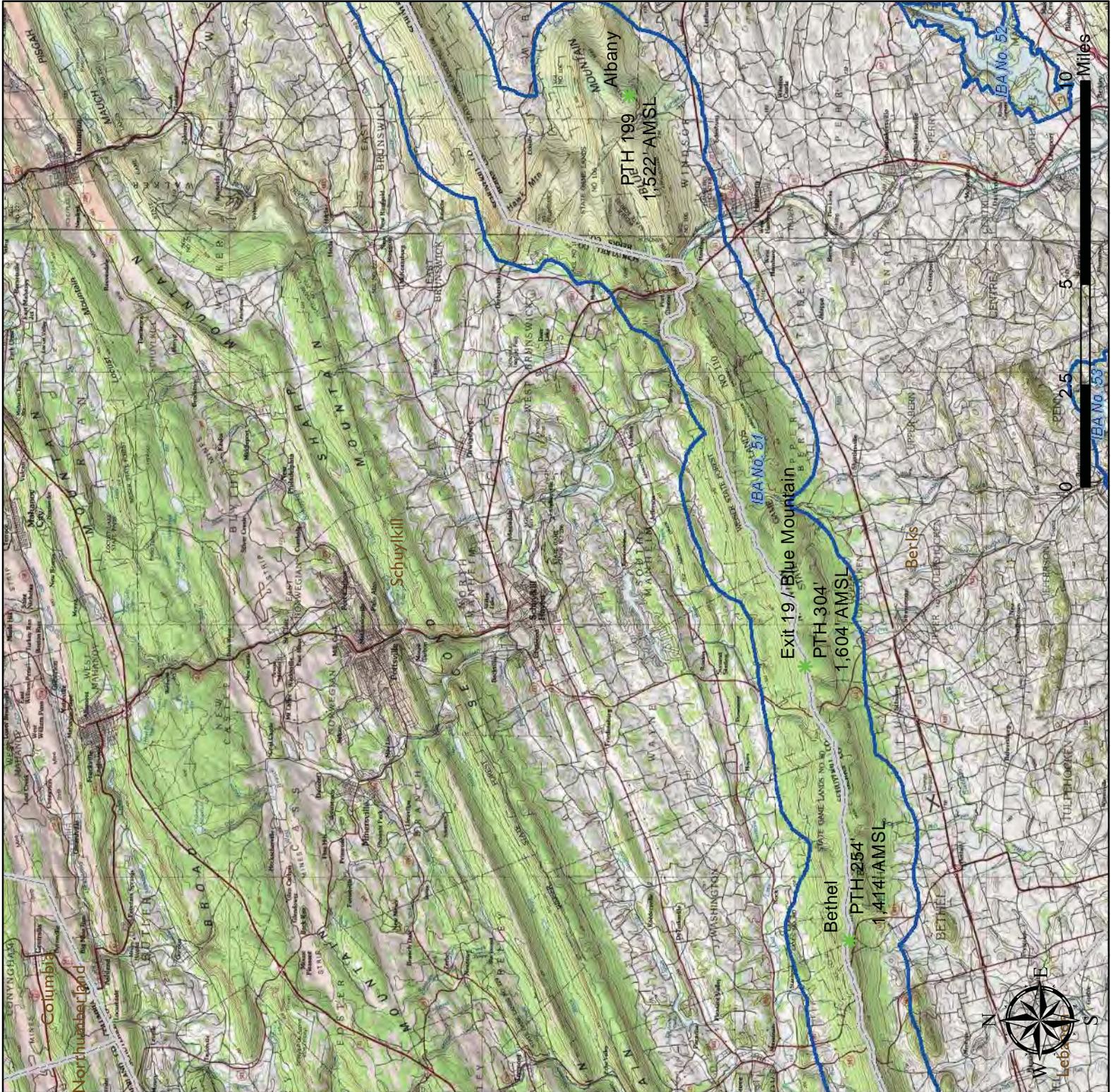
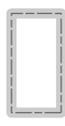


Figure 1
IBA Location Map

Legend

-  Proposed Blue Mtn Kittatinny Ridge Tower Sites
-  IBA
-  County Boundary

Notes:
 PTH - Proposed Tower Height
 AMSL - Above Mean Sea level

**MULTIPLE ADDRESSES
 BERKS COUNTY
 PENNSYLVANIA**



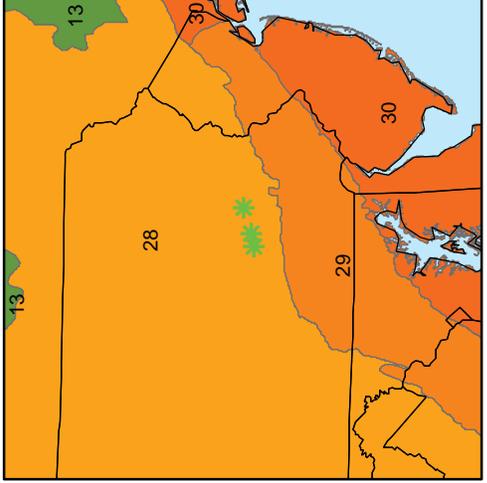
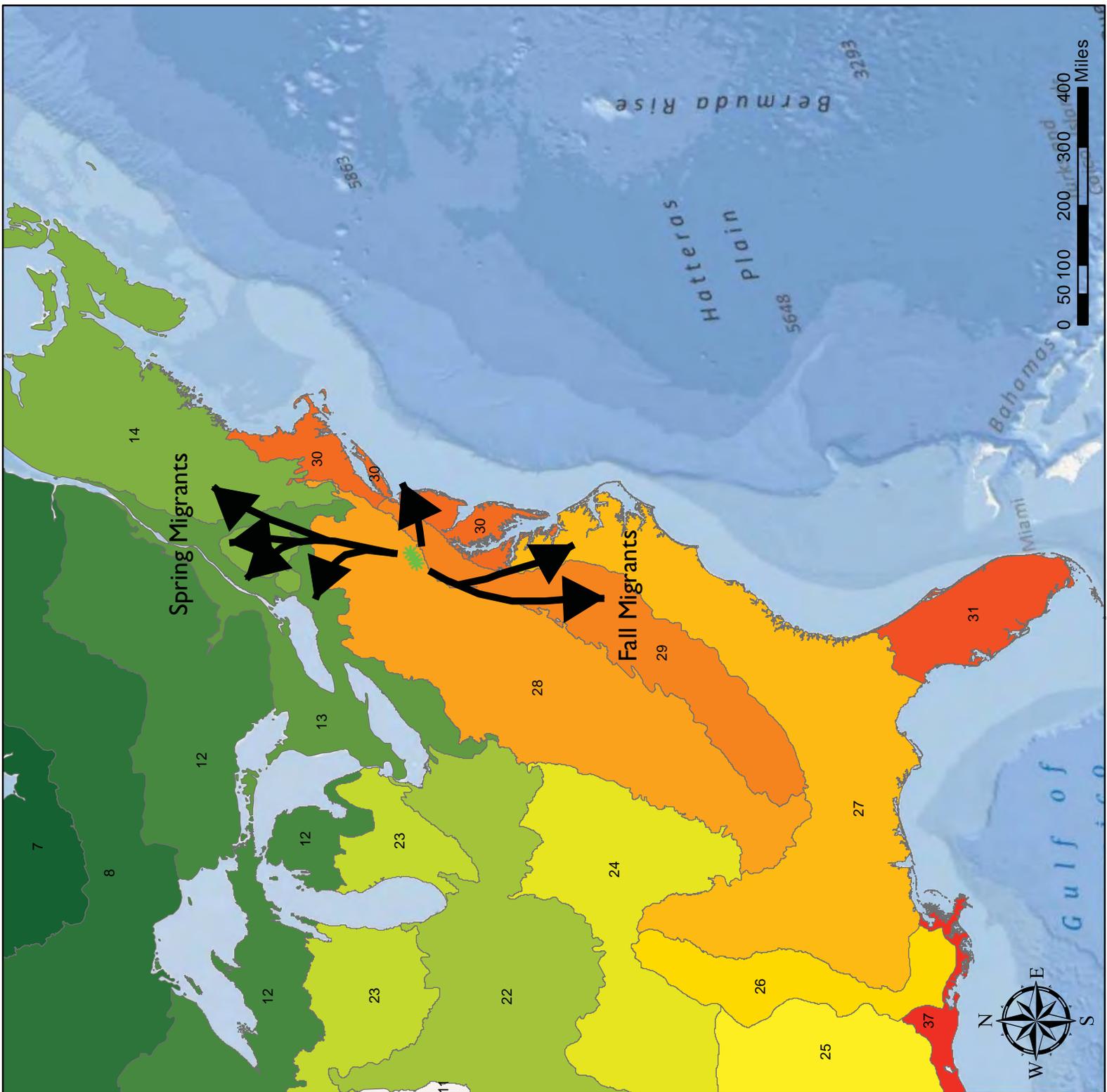


Figure 2
Bird Species
Conservation Regions

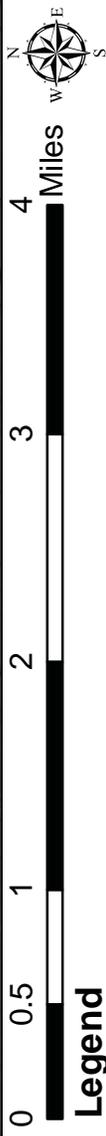
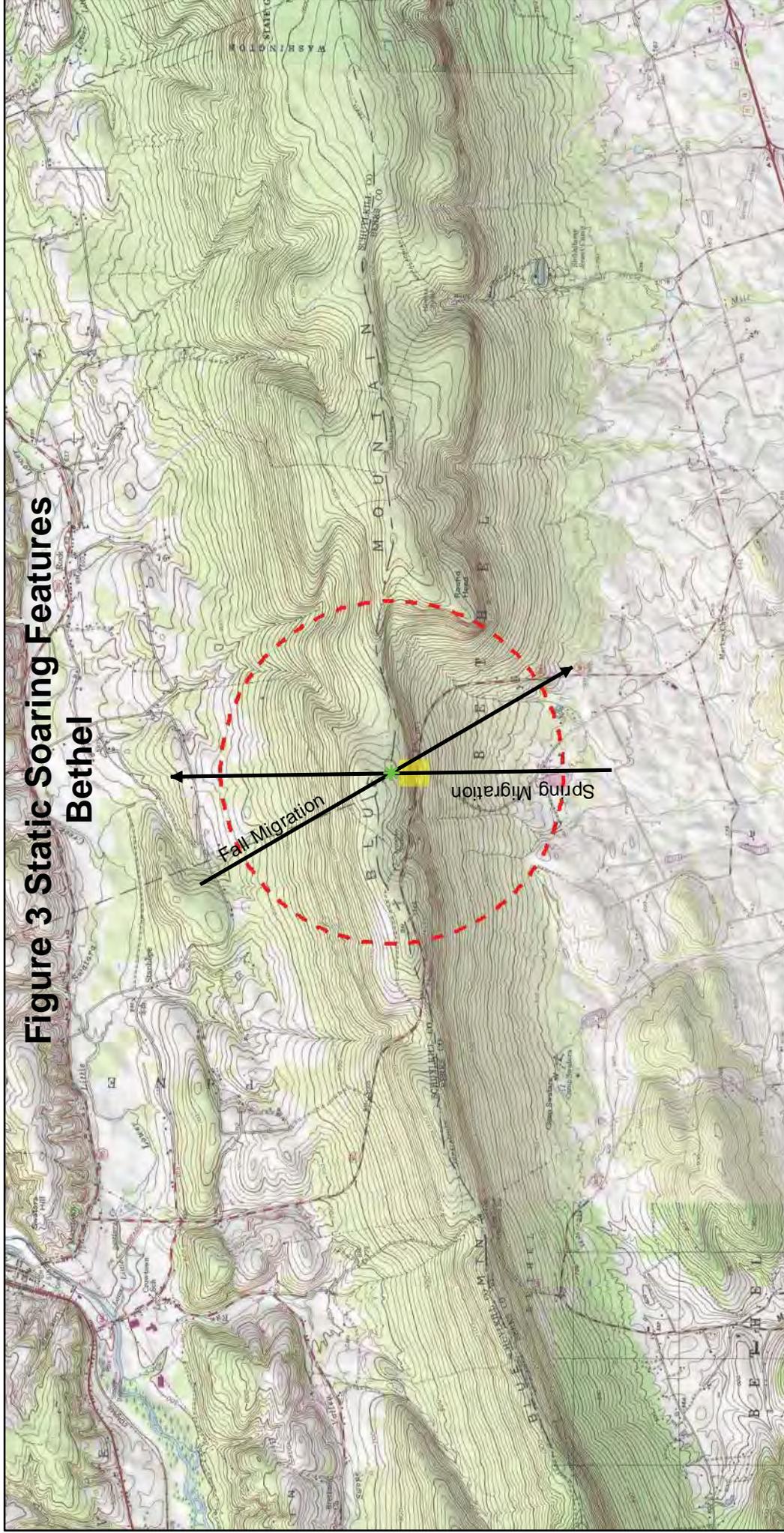
Proposed Blue Mtn
 Kittatinny Ridge
 Tower Sites

* * * *

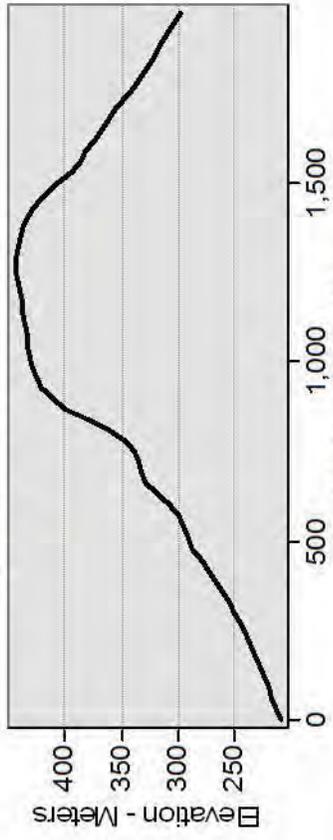
▲ Spring & Fall Migration

BCR number	Color
7	Dark Green
8	Medium Green
12	Light Green
13	Yellow-Green
14	Yellow
22	Light Yellow
23	Yellow-Green
24	Yellow
25	Light Yellow
26	Yellow
27	Orange
28	Light Orange
29	Orange
30	Dark Orange
31	Red-Orange
37	Red

**Figure 3 Static Soaring Features
Bethel**



Spring - South Wind



Spring Migration Elevation Profile

Legend

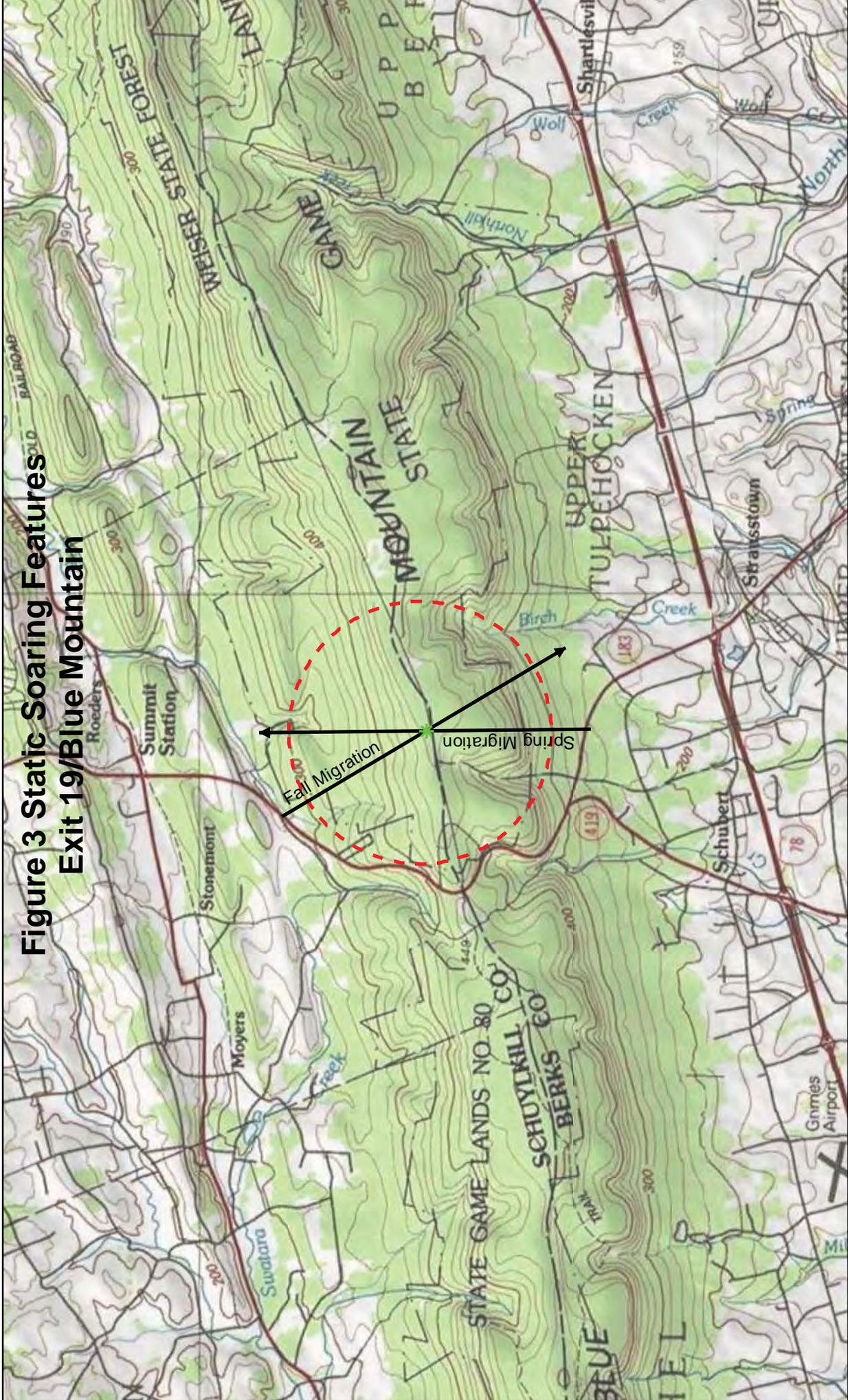
- * Proposed Bethel Site
- Migration Wind Direction
- Static Soaring Features
- 1 Mile Radius

Project #
61115089

Created By:
EBI GIS
Date: 8/24/2012

Source: Selected data from USGS, Bing,
PA Natural Heritage Program & EBI.

**Figure 3 Static Soaring Features
Exit 19/Blue Mountain**



Legend

- * Proposed Exit 19 / Mountain Site
- Migration Wind Direction
- 1 Mile Radius

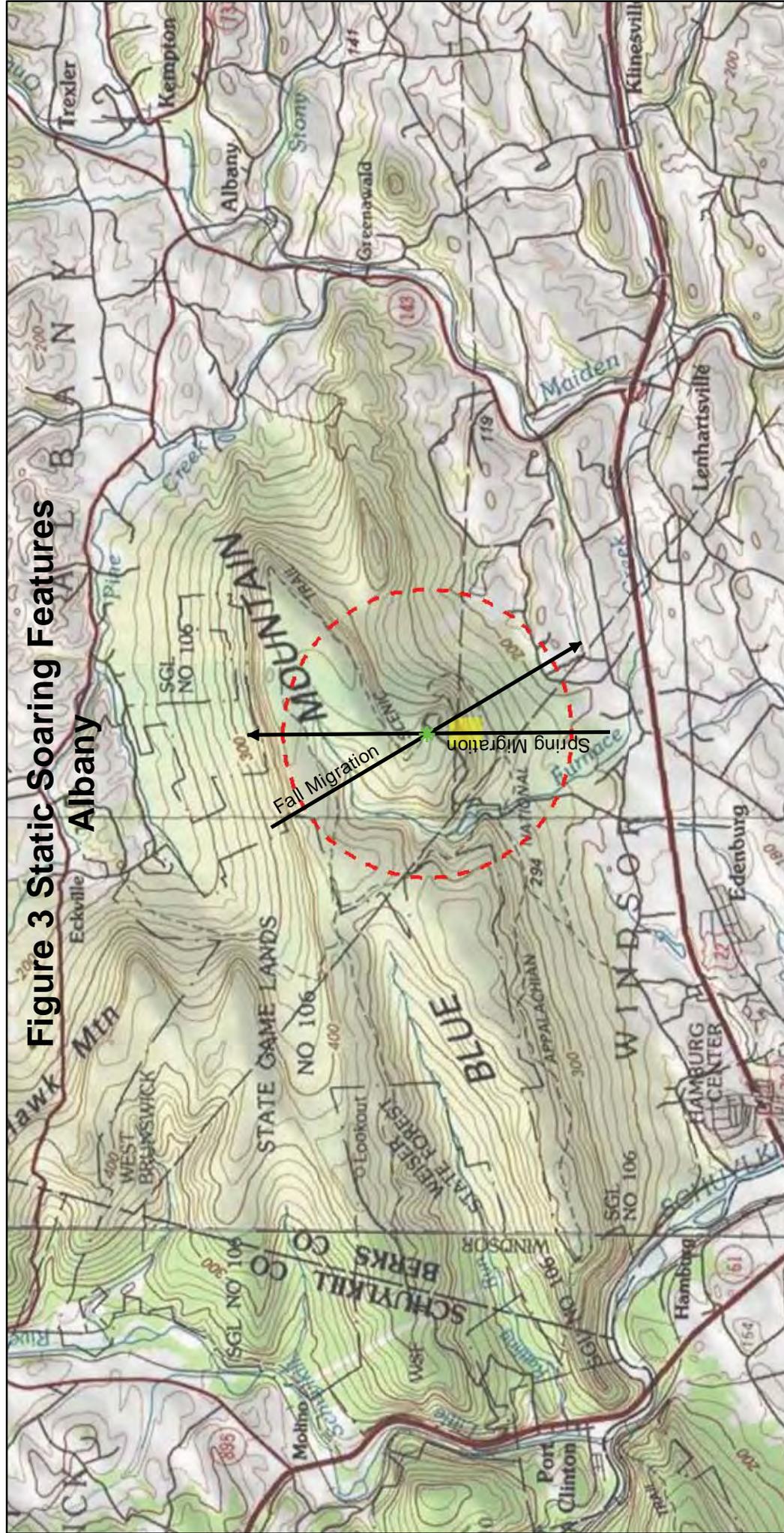
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61115089

Created By:
EBI GIS
Date: 8/24/2012

Source: Selected data from USGS, Bing,
PA Natural Heritage Program & EBI.

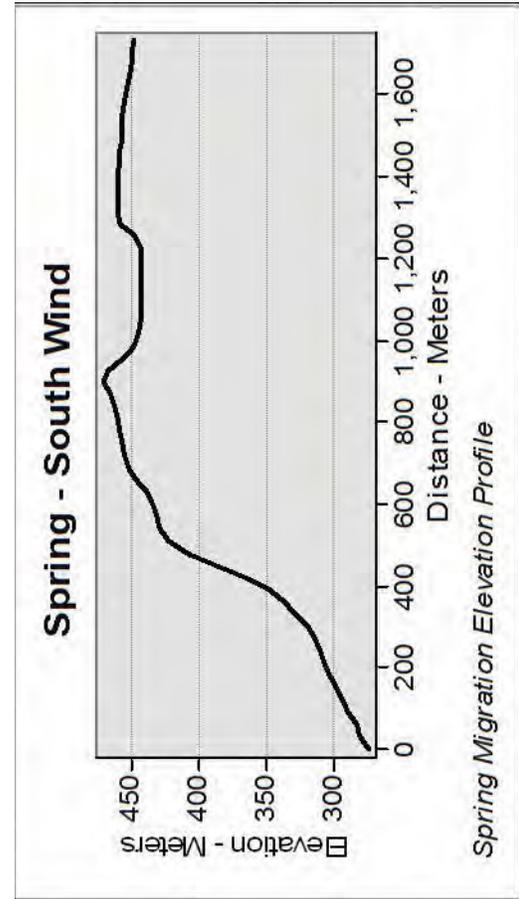
Figure 3 Static Soaring Features

Albany



Legend

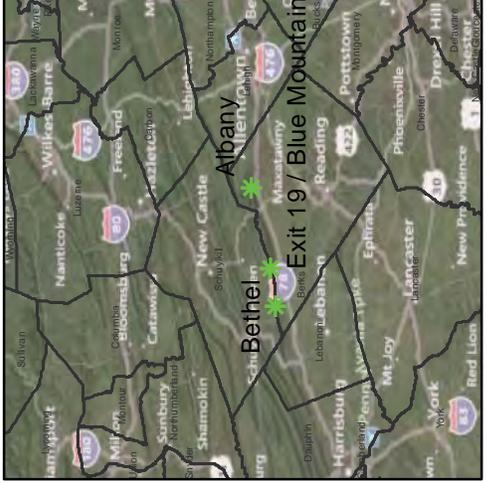
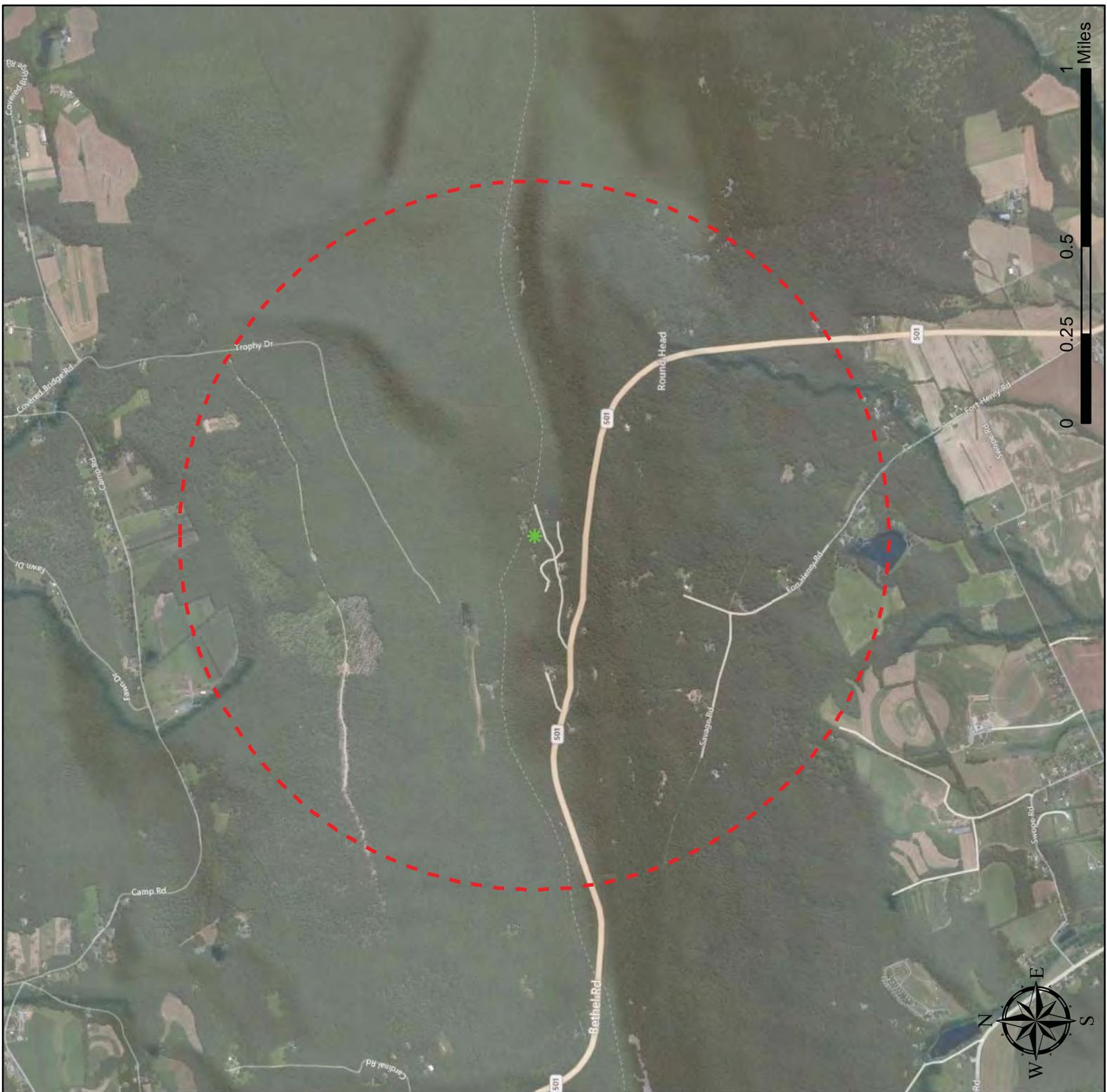
- * Proposed Albany Site
- Migration Wind Direction
- Static Soaring Features
- 1 Mile Radius



Project #
61115089

Created By:
EBI GIS
Date: 8/24/2012

Source: Selected data from USGS, Bing,
PA Natural Heritage Program & EBI.



**Figure 4 Thermal Soaring
Bethel Site**

Legend

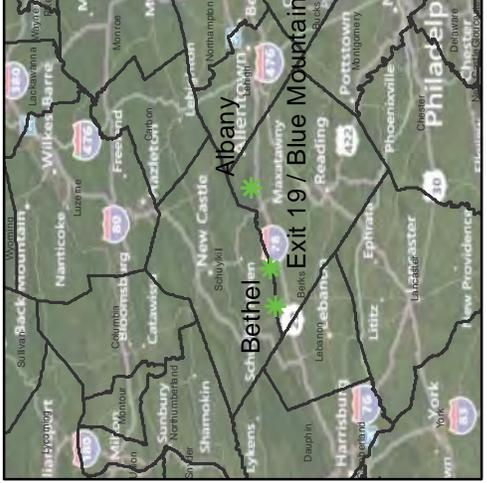
- ★ Proposed Bethel Site
- Thermal Soaring Feature
- 1 Mile Radius



Source: Selected data from USGS, Bing,
PA Natural Heritage Program & EBI.

Project #
61115089

Created By:
EBI GIS
Date: 8/21/2012



**Figure 4 Thermal Soaring
Exit 19 / Blue Mountain**

Legend

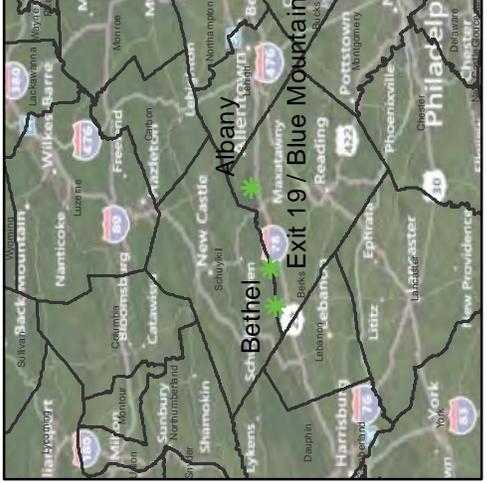
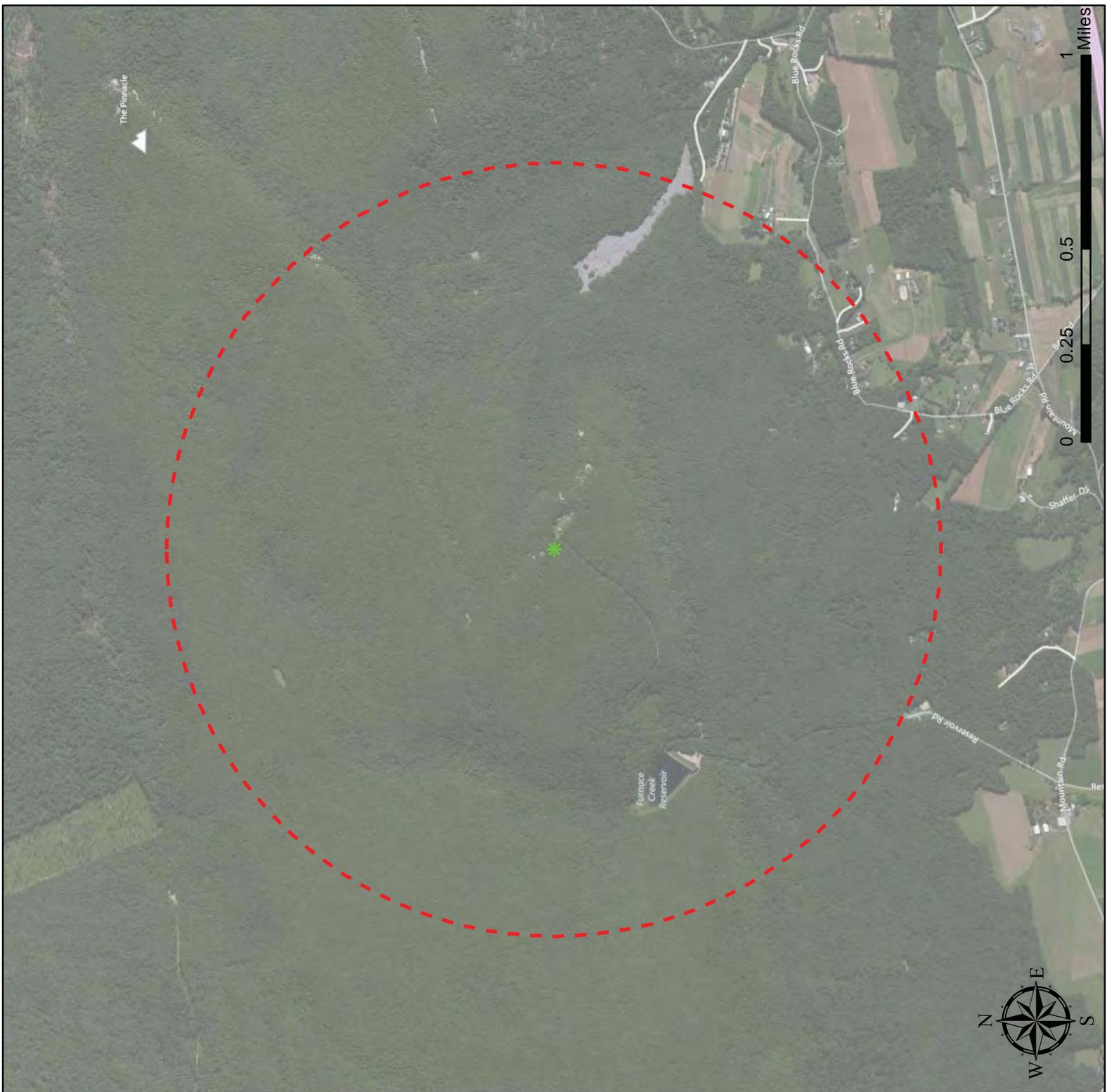
- * Proposed Exit 19
Blue Mountain Site
- Thermal Soaring Feature
- 1 Mile Radius



Source: Selected data from USGS, Bing,
PA Natural Heritage Program & EBI.

Project #
61115089

Created By:
EBI GIS
Date: 10/24/2012

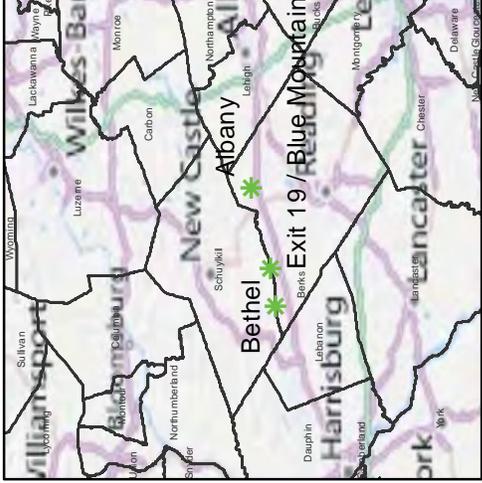


**Figure 4 Thermal Soaring
Albany Site**

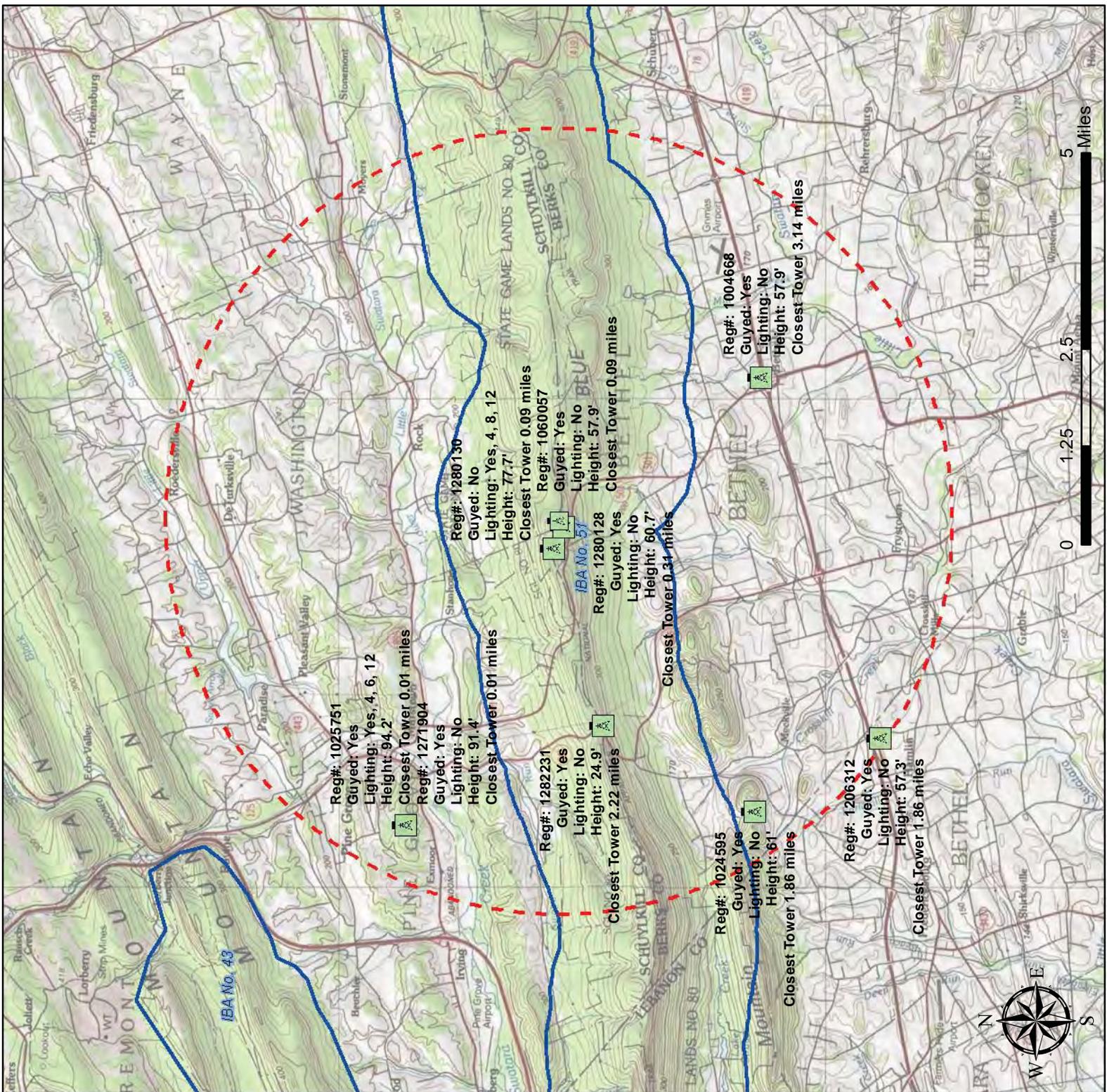
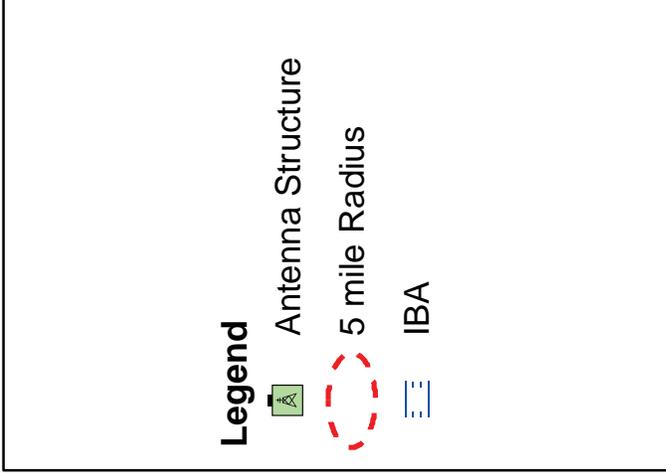
Legend

- * Proposed Albany Site
- Thermal Soaring Feature
- 1 Mile Radius



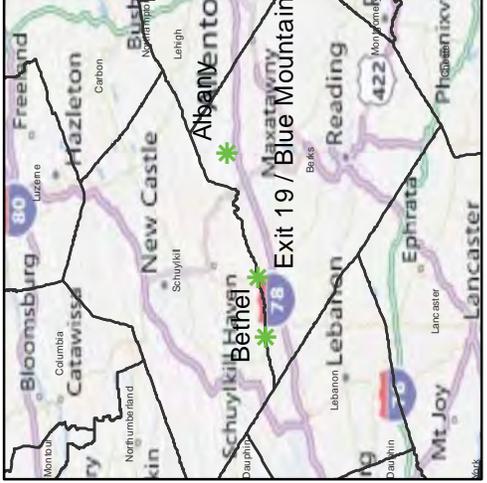


**Figure 5 Existing ASR
Bethel Site**

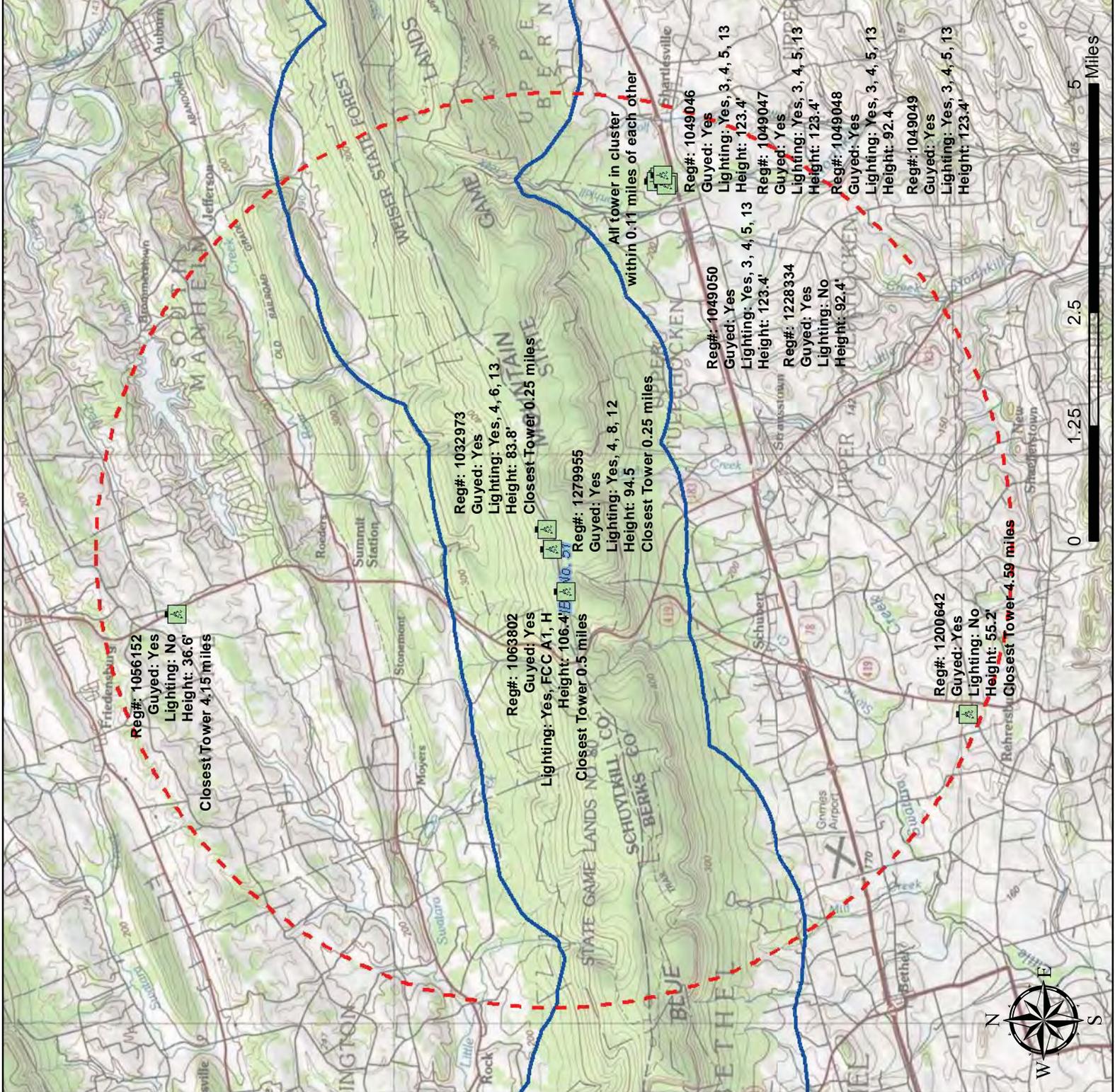
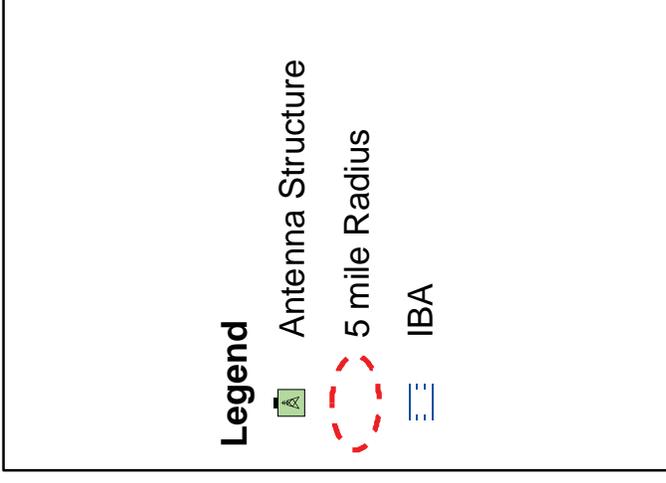


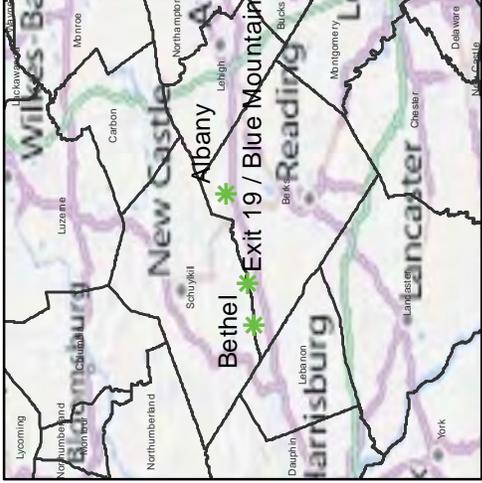
Source: Selected data from USGS, Bing,
PA Natural Heritage Program & EBI.

Project #
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Created By:
EBI GIS
Date: 8/21/2012

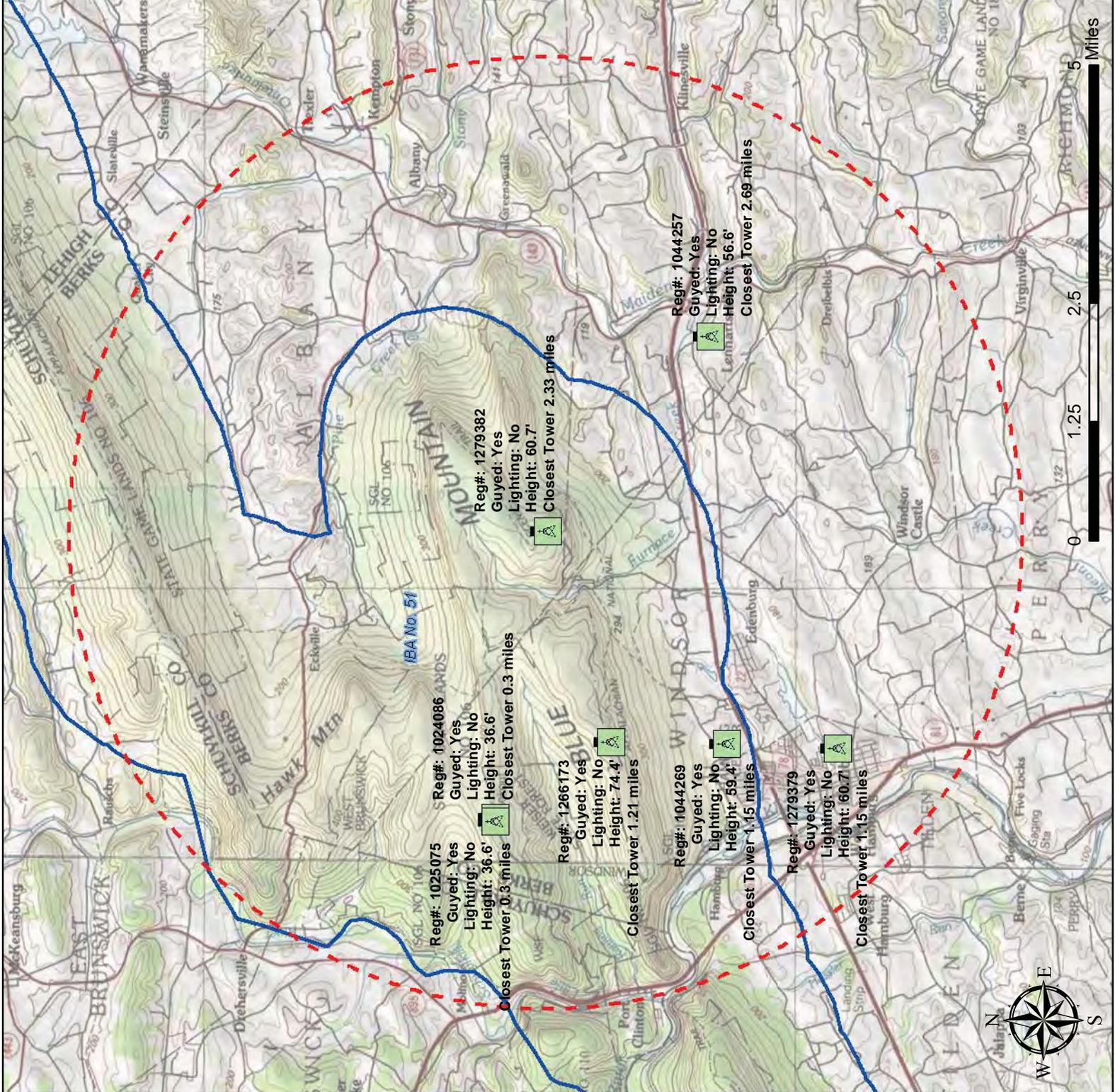
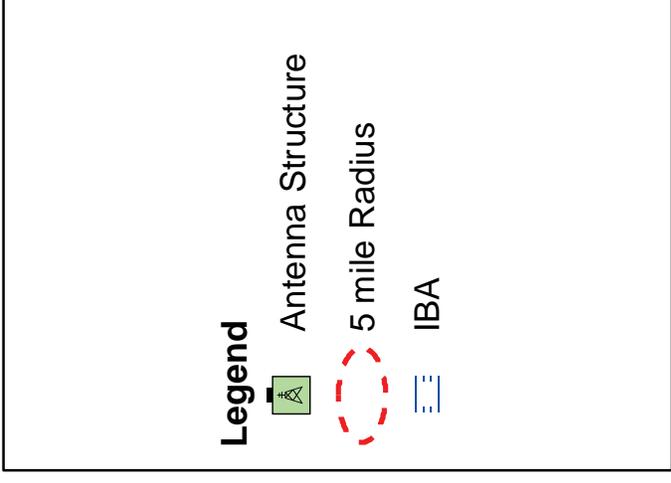


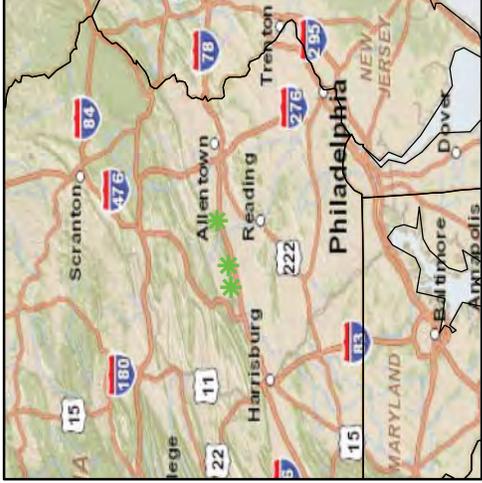
**Figure 5 Existing ASR
Exit 19 / Blue Mountain Site**





**Figure 5 Existing ASR
Albany Site**





**Figure 6
Forest Interior
Block Map**

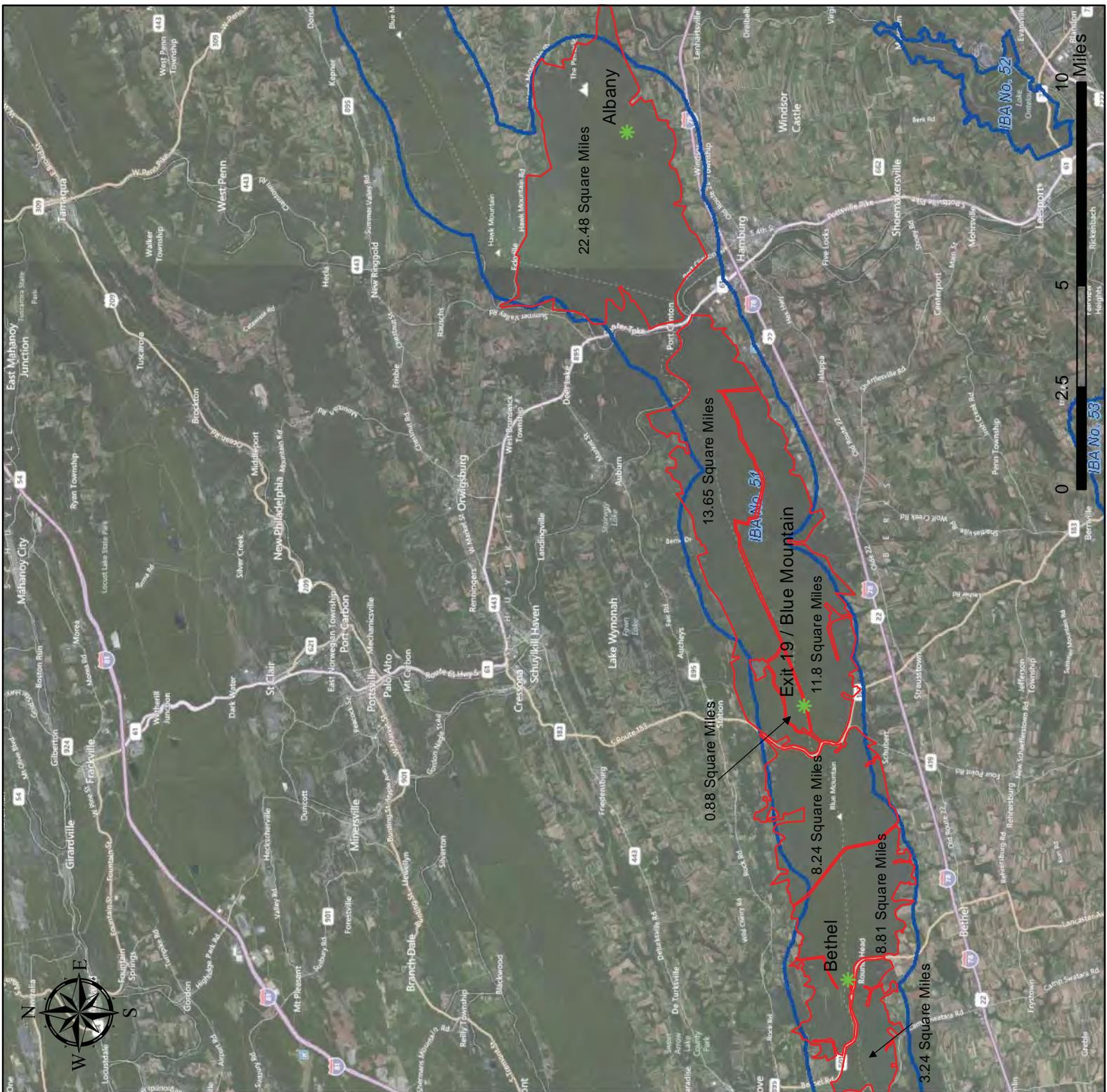
Legend

- Proposed Blue Mtn Kittatinny Ridge Tower Sites *
- IBA ▬▬▬
- Forest Interior Block ▬▬▬



Source: Selected data from USGS, Bing, PA Natural Heritage Program & EBI.

Project # 61115089
Created By: EBI GIS
Date: 8/29/2012



NOTE

The remainder of the Biological Assessment Appendices (as listed below) have been removed in consideration of the report/file size and to avoid duplication. The removed documents can be found in the Appendices of this Environmental Assessment report, as noted below.

Biological Assessment Appendix	Found in EA Appendix
B: Drawings	Appendix A: Site Drawings
C: Photographs	Appendix F: Historic Resource Review Documentation (<i>FCC Form 620</i>)
D: Site Selection Documentation	Appendix C: Site Selection Documentation
E: Qualifications	Appendix I : Qualifications

APPENDIX I
QUALIFICATIONS



Talia C. Gilmore

Project Scientist

6876 Susquehanna Trail South

York, PA 17403

Office: 717.428.0401 x 1218 Mobile: 717.542.6471

SUMMARY OF EXPERIENCE

Ms. Gilmore is a Project Scientist with six years of experience specializing in environmental investigations, site assessments, and NEPA environmental reviews for the telecommunications industry. She has conducted nearly 200 Phase I and Phase II Environmental Site Assessment in accordance with ASTM standards and nearly 700 NEPA site assessments pursuant to the National Environmental Policy Act (NEPA) for the Telecommunications Division of EBI. She has additionally coordinated over 900 tribal consultation projects, primarily for the Mid-Atlantic and Southeast regions.

Ms. Gilmore completed her Bachelor's degree in Wildlife and Fisheries at Frostburg State University and earned her Master's degree in Environmental Science at Towson University. As an undergraduate at Frostburg State University, Ms. Gilmore worked as a research assistant at the University of Maryland Center for Environmental Sciences Appalachian Laboratory organizing and transferring raw data on Black-tailed prairie dogs. During graduate school, she worked closely with the Mid-Atlantic Integrated Assessment Division of the Environmental Protection Agency by researching and presenting information on biological criteria for Maryland's freshwater streams.

RELEVANT PROJECT EXPERIENCE

Environmental Site Assessments: Ms. Gilmore has conducted both ASTM and Client-specific Phase I and Phase II Environmental Site Assessments and prepared Phase I compliance reports for properties throughout the Mid-Atlantic region and adjoining states. These projects have been completed for varying clients including those within the commercial, retail, residential, municipal, agricultural, and telecommunications sectors.

Mobile Telecommunication Sites: In addition to environmental assessments, Ms. Gilmore has prepared NEPA reviews for telecommunications properties throughout the United States and Puerto Rico. These reports ensure compliance with Federal Communications Commission (FCC) requirements under the National Environmental Policy Act (NEPA) and include an analysis of historic properties, wetlands, endangered species habitats, floodplains, and other areas of environmental concern in an attempt to limit potential impact of cellular installations on these sensitive areas.

Wetland Assessments: Ms. Gilmore has also been trained on basic wetland delineations using the U.S. Army Corps of Engineers Wetland Delineation Manual Technical Report Y-87-1. With this training, Ms. Gilmore has been able to assist in identifying features of potential wetlands as defined by the U.S. Army Corps of Engineers and provide guidance on whether a wetland delineation is warranted for proposed telecommunications projects in the Mid-Atlantic region.

EDUCATION

B.S. Wildlife & Fisheries, *Magna cum laude* Frostburg State University, Frostburg, MD

M.S. Environmental Science Towson University, Towson, MD

PROFESSIONAL CERTIFICATIONS

ASTM Phase I Environmental Site Assessments for Commercial Real Estate

TSCA Title II Certification: Asbestos Building Inspector

Basic Wetland Delineation

Denver, CO

Boiling Springs, PA

Frederick, MD



S. Lorraine Norwood, MA, RPA

Program Manager
Office/Mobile: 770.630.5171

SUMMARY OF EXPERIENCE

13 years experience in archaeology and historic preservation, NEPA, telecommunications environmental compliance, client portfolios for Sprint, Verizon, AT&T, Nextel Communications, T-Mobile, Crown Castle, SBA, American Tower and many others.

RELEVANT PROJECT EXPERIENCE

National Environmental Policy Act (NEPA) Reviews

NEPA Manager/Author, NEPA reviews for telecommunications towers in Alabama, Florida, Georgia, North Carolina, and South Carolina including completion of FCC Form 620/621/E-106, with additional cultural resource reports for history and archaeology, tower construction notification system (TCNS) submittal, tribal communications, and assessment for potential wetland-related and flood plain issues.

Georgia Department of Transportation (GDOT)

Project Manager for archaeology and historic structure surveys for GDOT projects: SR 11/US 129 Blairsville, Hall and Forsyth Counties: SR 369, Fulton County: East Point Sidewalk Project, Fulton County: SR 400/ I-85 Connector Ramps, Fayette County: East Fayetteville Bypass, Dawson County: Intersection Improvement: GA 400, and SR 133 Corridor, Albany to Moultrie, GA.

Historic Structure Surveys

Project Manager, Historic Structure Surveys for Columbia County, Georgia; the cities of Albany, Norcross, and Yatesville. Georgia; and Barbour County, Alabama. Author, Centerville, Georgia Attrition Study Mitigation Project.

Authorized Project Reviewer, Manager

Archaeological reconnaissance survey of proposed wind turbine facilities in Comanche County, Oklahoma; 16 miles of turbine lines and 50 turbine locations for cultural resources. Archaeological reconnaissance survey of proposed wind turbine facilities in Ford County, Kansas; 62 miles of turbine lines and approximately 275 turbine locations for cultural resources

National Register Nomination, The Blake House, Arden, North Carolina

Conducted historic and architectural research on a c. 1850 Gothic Revival structure. Completed Nomination Form for the National Register of Historic Places. Form and narrative description accepted by the North Carolina State Historic Preservation Office for submittal to the National Register Board.

Archaeological Surveys – Principal Investigator

Trumann, Arkansas: Archaeological survey of 14-acre site for large retail chain
Tuskegee, Alabama: Historical research and archaeological investigation of Moton Air Field, National Park Service site in advance of the Tuskegee Airmen interpretive site and museum.

EDUCATION

BA ENGLISH AND CREATIVE WRITING

BA ANTHROPOLOGY

MA ARCHAEOLOGY

PROFESSIONAL COURSES

Georgia Department of Transportation: *Environmental Impacts Analysis: Understanding Indirect and Cumulative Effects*-January 2011

National Preservation Institute: *Section 106: An Introduction*-June 2010

Advisory Council on Historic Preservation: *The Section 106 Advanced Seminar*-August 2010

FHWA-NHI-142005 NEPA & Transportation Decisionmaking, Atlanta, Georgia, 2007

Comprehensive NEPA Training, Denver, Colorado, August 2006

Speaker, PCIA National Conference, Nashville, Tennessee, September 2006

PROFESSIONAL REGISTRATIONS

REGISTERED PROFESSIONAL ARCHAEOLOGIST

PUBLICATIONS

DULUTH (A HISTORY OF DULUTH, GA 2011, ARCADIA PUBLISHING)



Richard Bolton

Wetland Scientist

21 B Street

Burlington, MA 01803

Office: 781.418.2329 Mobile: 781.281.6147 Fax: 781.418.2379

SUMMARY OF EXPERIENCE

Mr. Bolton is a Senior Environmental Scientist at EBI Consulting with over ten years of experience conducting watershed, wetland and stream related studies, assessments and management plans. He has managed field teams, conducted field work and prepared numerous wetland delineation reports, impact assessments, permits, mitigation plans and mitigation monitoring reports. He has completed stream restoration training including; Rosgen Levels I & II fluvial geomorphology and the EPA's Watershed Assessment of River Stability and Sediment Supply (WARSS) training. Mr. Bolton routinely works within an interdisciplinary framework to successfully avoid, minimize, and compensate environmental impacts. His expertise includes impact assessment of natural resources for transportation and infrastructure projects, watershed planning, Section 404 and 401 permits, and habitat related aspects of ecosystem rehabilitation and restoration projects.

RELEVANT PROJECT EXPERIENCE

Vermont Agency of Transportation, CIRC-Williston Transportation Project, Environmental Impact Statement (EIS), Chittenden County, Vermont. Mr. Bolton coordinated with the U.S. Army Corps of Engineers (USACE), Environmental Protection Agency (EPA), and Federal Highways Administration (FHWA) technical specialists to assess indirect impacts to wetland functions and services, particularly wetland dependent wildlife species. He worked closely with highway and drainage engineers to avoid impacts at stream crossings and minimize impacts from storm water management BMPs and through roadway median adjustments. The indirect impact analysis included impacts to landscape features including grassland and interior forest habitats, aquatic habitat networks, noise impacts to adjacent habitats based on daily traffic volumes and fragmentation of vernal pool species habitats.

New York State Department of Transportation (NYSDOT), Ecological Services. Mr. Bolton led the field team, assessing wetland mitigation sites throughout Dutchess, Westchester, Rockland, Putnam, Orange, Onondaga and Oswego Counties from 2005-2006. The team conducted vegetation plot monitoring and a delineation of each wetland zone based on plant community and hydrologic indicators. He authored wetland monitoring reports for five mitigation projects for the 2005 monitoring year and eight mitigation projects for the 2006 monitoring year. Mr. Bolton monitored nine NYSDOT wetland mitigation areas in 2007 including conducting wetland remediation studies for two mitigation projects. He has conducted six wetland delineations under the agreement since 2007. Mr. Bolton has authored numerous monitoring reports and is task manager for all wetland monitoring efforts under this contract for the 2008 through 2011 monitoring years.

New Jersey Turnpike Authority, NJ Turnpike Interchange 6 to 9 Widening Program, Burlington, Mercer and Middlesex Counties, NJ. Mr. Bolton coordinated the field review and multiple inspections of over 90 potential vernal pool locations. He field reviewed all impacted certified vernal pools with a NJ DEP Herpetologist, discussed direct and secondary impacts caused by the permitted actions and noted, given the impact, what habitat attributes would be preferred at mitigation sites. The review of vernal habitats and description of impacts was a special condition of the New Jersey Freshwater Wetlands Permit.

Dominion Transmission Inc., Tioga Storage Factory Project, Tioga County, Pennsylvania.

Mr. Bolton conducted preliminary mapping assessments and construction access analysis for a proposed 12 mile pipeline and natural gas storage facility project. He delineated all wetlands and waterways along the corridor and proposed access roads. He completed a field review and jurisdictional determination with the USACE and Pennsylvania Department of Environmental Protection (PA DEP).

Passaic County Planning Department, Molly Ann Brook Watershed Management Plan, Passaic County, New Jersey.

Responsible for the ecological, hydrological and geomorphological aspects of the stream physical assessment and watershed characterization portions of the management plan. He coordinated field studies including USGS Visual Assessment Protocol (VAP), Rosgen Level I stream reach classification, stormwater outfall inventory and stormwater Best Management Practice (BMP) retrofit identification. Mr. Bolton analyzed hydrograph data and calibrated shift adjusted rating curves for intermittent channels and field verification with a USGS Gage. He has characterized the differences in flow and sediment regimes over several tributaries of varying watershed slope and impervious area concentrations using the Watershed Assessment of River Stability and Sediment Supply (WARSSS) methodology developed by the Environmental Protection Agency (EPA) and examining macroinvertebrate and bacteriological trends as they relate to differing urban flow regimes. Mr. Bolton authored parts of the management plan which included recommendations to improve water quality and monitor the performance of implemented BMP retrofits and stream restoration/floodplain reconnection projects.

EDUCATION

B.T., Wildlife Management, State University of New York at Cobleskill, 2000

A.A.S., Fisheries and Wildlife Biology, State University of New York at Cobleskill, 1997

PROFESSIONAL REGISTRATIONS

Rosgen Level II, River Morphology and Applications, 2010

Rosgen Level I, Applied Fluvial Geomorphology, 2004

Watershed Assessment of River Stability and Sediment Supply (WARSS) Training 2008

Maryland DNR Forest Interior Dwelling species (FIDs) Qualified Professional, 2004

PUBLICATIONS

NCHRP Project 25-25, Task68: Implementing Measures to Reduce Highway Impacts on Fragmentation. Mr. Bolton conducted a research review of existing practices and interviewed state transportation agencies to determine how DOTs are implementing and practicing the (mitigation) avoidance, minimization and compensation of impacts to wildlife and wildlife habitats, specifically habitat fragmentation. The research focuses on implemented programs which infuse the principles of habitat connectivity at a landscape scale which are cost efficient and effective in practice at reducing direct and indirect impacts to wildlife and natural habitats. The deliverable is a web-based decision making tool for planners, engineers and other transportation project practitioners so that habitat fragmentation considerations are more easily incorporated at the regional planning, project planning, NEPA/project design and facility operation levels. Mr. Bolton is a co-author of the report and was key staff within the consultant research team.



Lee Brewer

Project Scientist

6876 Susquehanna Trail South
York, PA 17403

Office: 717.428.0401 ext. 1213 Mobile: 717.542.8424

SUMMARY OF EXPERIENCE

Lee Brewer is a Project Scientist with over five years of experience specializing in environmental investigations, site assessments, and National Environmental Policy Act (NEPA) reviews for the telecommunications industry. Mr. Brewer also has experience conducting limited Phase II Investigations involving lead in soil, lead paint, lead in drinking water, and asbestos. These assessments have been performed to evaluate site conditions, potential liabilities, and site remediation costs in order to advise prospective buyers, current operators, and owners of potential and existing environmental concerns.

RELEVANT PROJECT EXPERIENCE

Environmental Site Assessments: Mr. Brewer has conducted over 300 ASTM and Client-specific Phase I and Phase II Environmental Site Assessments and prepared Phase I compliance reports for properties located throughout the Mid-Atlantic, Northeast, Southeast, and Mid-West regions. These properties have included commercial, retail, residential, municipal, agricultural, and telecommunications properties.

NEPA Screening Reports: Mr. Brewer has prepared over 350 NEPA Screening Reports for telecommunications sites throughout the Mid-Atlantic, Northeast, and Southeast regions. Mr. Brewer has also reviewed over 200 NEPA Screening Reports for telecommunications sites throughout the United States. These reports ensure compliance with Federal Communications Commission (FCC) requirements under NEPA and include an analysis of historic properties, wetlands, endangered species habitats, floodplains, and other sensitive areas of environmental concern where there is the potential for impact from the installation of cellular equipment.

EDUCATION

B.A., Environmental Studies, University of Pittsburgh

PROFESSIONAL CERTIFICATIONS

ASTM Phase I Environmental Site Assessments for Commercial Real Estate

EPA/AHERA Certified Asbestos Inspector

Pennsylvania Certified Asbestos Inspector

SUMMARY OF EXPERIENCE

Ms. Derrick has more than 11 years of professional experience specializing in architectural history and Section 106 Compliance. She has conducted and managed surveys on a variety of historic property types including rural, urban, commercial, residential, and industrial sites as well as linear transportation corridors. She has successfully completed project assignments including architectural surveys and eligibility reports for private developers, municipalities, the New Jersey Department of Transportation, and the Federal Communications Commission.

Ms. Derrick's responsibilities at EBI include managing the quality and productivity of the Cultural Resource Management team, providing technical assistance and helping clients navigate the environmental review process to ensure compliance with Federal Communications Commission (FCC) requirements under the National Environmental Policy Act (NEPA) and the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA).

EDUCATION

1995-1997 M.S. Candidate, Historic Preservation, School of the Art Institute

1988-1992 B.S., Psychology, Lawrence University

TELECOMMUNICATIONS PROJECT EXPERIENCE

1 State Home Road, Monroe Township, Middlesex County, New Jersey

This project involves construction of a new wireless telecommunication facility contained inside a proposed faux lookout tower within the boundary of the National Register-eligible New Jersey Training School For Boys Historic District. Ms. Derrick supervised the survey to identify the historic resource and then worked with the State Historic Preservation Office and the project proponent to develop a mitigation plan to address the effects of the proposed project on the historic resource.

5 Hewitt Road, Stockton (Delaware Township), Hunterdon County, New Jersey

This project involved the construction of a monopole adjacent to an eligible rural historic district. Ms. Derrick worked with the project proponent to exhaust all alternatives for re-location of the site further away from the historic district. When no other sites were available Ms. Derrick coordinated the continued consultation between the New Jersey Historic Preservation Office, the Delaware Township Historic Preservation Commission and the project proponent that resulted in a Conditional No Adverse Effect Finding.

24 Conifer Drive, Mendham Township, Morris County, New Jersey

This project involves the construction of a wireless telecommunications facility on a tree-type monopole adjacent to the boundary of the National Register-eligible Brookside Historic District. Ms. Derrick completed historical research, site visits, public meetings and a balloon test in order to assess the effects of the proposed project on historic properties. Ms. Derrick coordinated the negotiations associated with the Memorandum of Agreement process between the local consulting parties, the municipality, New Jersey Historic Preservation Office, the Federal Communications Commission and the project proponent.

PROFESSIONAL EXPERIENCE

July 2008-Present, EBI Consulting

Technical Director – Cultural Resources (see above for details)

April 2007- July 2008, E2 Project Management, Inc.

Division Manager – Cultural Resources Management In her position as Division Manager-Cultural Resources, Ms. Derrick developed a cultural resources compliance program for an engineering and environmental consulting company, marketed the new services, built and maintained client relationships and managed more than 450 wireless telecommunication projects.

January 2001 – February 2007, Richard Grubb & Associates

Architectural Historian/Wireless Telecom Projects Manager Ms. Derrick worked as an architectural historian with Richard Grubb & Associates and then was promoted to a position developing and managing a regulatory compliance program for the wireless telecommunications industry. As an architectural historian, Ms. Derrick was responsible for conducting historical research and field visits, preparing assessments of effect, determinations of National Register eligibility, and surveys of historic architectural resources. As the Wireless Telecom Projects Manager, Ms. Derrick developed and marketed compliance survey products tailored to the wireless telecommunications industry and managed the successful completion of more than 1400 compliance documents for all the major carriers and tower builders.

March 2000 – January 2001, New Jersey Historic Trust

Historic Preservation Specialist Ms. Derrick reviewed grant applications, conducted site visits and prepared presentations for the grant selection committee. Once grantees were awarded, Ms. Derrick reviewed and recommended for approval/denial grantees reimbursement requests.

November 1998 – December 1999, Carol Yetken Landscape Design

Research Assistant Ms. Derrick completed archival research, conducted field survey and condition assessments and completed report writing for historic landscape surveys and historic landscape restoration projects.

May 1997 – November 1998, Pleasant Home Foundation

Assistant Director Ms. Derrick's responsibilities included raising funds for the restoration of the historic home, working with the historic architect to prepare a Preservation Plan and then a Historic Structures Report and to manage the volunteer program.

RELEVANT PROJECT EXPERIENCE

In addition to Ms. Derrick's work at EBI, she has conducted or supervised surveys on a variety of historic property types including rural, urban, commercial, residential, and industrial sites. She has been the principal investigator for numerous research projects in which she conducted field investigations of historic structures and made determinations of eligibility.

2003 Cultural Resources Investigation of the Replacement of NJ Route 70 Bridge over Bispham's Mill Creek (Structure No. 0311-150), Pemberton and Woodland Townships, Burlington County, NJ.

Project included an archaeological survey and intensive-level architectural survey for the replacement of Structure No. 0311-150 over Bispham's Mill Creek. Ms. Derrick served as the principal investigator and completed the survey of historic resources within the Areal of Potential Effects. As a result of the survey, one historic resource was identified – The Rockefeller Memorial Highway (NJ Route 70) Historic District. While the entire length of the Rockefeller Memorial Highway was found to have historical significance, only a 10-mile section was determined eligible for listing. Mitigation measures included the full survey of the historic district and replication of significant design features in the new structure.

2004 Cultural Resources Investigation of the Replacement of the West Brook Road Bridge over the Wanaque Reservoir, Wanaque Borough, Passaic County, NJ.

Project included an archaeological survey and an intensive-level architectural survey for the replacement of the West Brook Road Bridge over the Wanaque Reservoir. Ms. Derrick served as the principal investigator and completed the survey of historic resources within the Area of Potential Effects. As a result of the survey, one historic resource was identified. – The Wanaque Reservoir Historic District. Mitigation measures included full survey of the historic district, HABS/HAER documentation of the existing bridge, and replication of significant design features in the new structure.

2004 Cultural Resources Investigation of the Replacement of Paterson-Hamburg Turnpike Bridge over the Pequannock River, Borough of Butler, Morris County and Borough of Bloomingdale, Passaic County, New Jersey.

Cultural Resources Investigation including alternatives analysis, archaeological survey and intensive-level architectural survey for the replacement of the Paterson-Hamburg Turnpike Bridge over the Pequannock River. Ms. Derrick served as the principal investigator and completed the survey of historic resources within the Area of Potential Effects. The survey included the identification of two potential resources, the White's Paper Mill Historic District and the Paterson-Hamburg Turnpike. Of the two, only the White's Paper Mill was considered to possess enough integrity to warrant listing on the National Register of Historic Places. An assessment of effects on the identified White's Paper Mill Historic District determined that the Paterson-Hamburg Turnpike Bridge was not a contributing element to the historic district.

SUMMARY OF EXPERIENCE

CHRISTOPHER W. BAIRD IS CURRENTLY EBI CONSULTING'S TECHNICAL DIRECTOR OVERSEEING WORK RELATED TO THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA). MR. BAIRD HAS OVER NINE YEARS OF EXPERIENCE IN THE ENVIRONMENTAL INDUSTRY SPECIALIZING IN NEPA, TRIBAL CONSULTATION, ENVIRONMENTAL SITE ASSESSMENTS, AND PROPERTY CONDITION ASSESSMENTS. IN ADDITION, MR. BAIRD HAS EXTENSIVE EXPERIENCE CONDUCTING AND OVERSEEING SUBSURFACE INVESTIGATIONS, PROPERTY CONDITION SURVEYS, AND ASBESTOS, LEAD AND MOLD INSPECTIONS.

RELEVANT PROJECT EXPERIENCE

NEPA ASSESSMENTS: AS EBI CONSULTING'S NEPA TECHNICAL DIRECTOR, MR. BAIRD IS RESPONSIBLE FOR DEVELOPING AND IMPLEMENTING POLICIES AND PROTOCOLS TO ENSURE EBI'S COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS UNDER NEPA. MR. BAIRD RESEARCHES AND INTERPRETS LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS AS THEY PERTAIN TO NEPA, AND ASSISTS CLIENTS BY FACILITATING THE ENVIRONMENTAL REVIEW PROCESS FOR THEIR TELECOMMUNICATIONS TOWER INSTALLATIONS IN ACCORDANCE WITH THE FEDERAL COMMUNICATIONS COMMISSION'S (FCC) REQUIREMENTS UNDER NEPA. MR. BAIRD ALSO ACTS AS A LIAISON BETWEEN CLIENTS AND REGULATORY BODIES AT THE LOCAL, STATE, AND FEDERAL LEVELS, INCLUDING, BUT NOT LIMITED TO, STATE ENVIRONMENTAL DEPARTMENTS, LOCAL AND STATE HISTORIC PRESERVATION COMMISSIONS, AND THE UNITED STATES FISH AND WILDLIFE SERVICE. MR. BAIRD ALSO ACTS AS A PRIMARY LIAISON BETWEEN CLIENTS AND REPRESENTATIVES OF THE SOVEREIGN NATIONS OF FEDERALLY RECOGNIZED NATIVE AMERICAN INDIAN TRIBES, WHEN CONSULTING ON THE PROPOSED CONSTRUCTION OF TELECOMMUNICATIONS INFRASTRUCTURE ON POTENTIALLY CULTURALLY OR HISTORICALLY SENSITIVE PROPERTIES.

ENVIRONMENTAL SITE ASSESSMENTS: IN ADDITION TO OVERSEEING EBI CONSULTING'S NEPA-RELATED WORK, MR. BAIRD HAS CONDUCTED OVER FIVE HUNDRED ENVIRONMENTAL ASSIGNMENTS FOR A WIDE RANGE OF PROPERTIES INCLUDING FILLING STATIONS/BULK STORAGE FACILITIES, AND INDUSTRIAL, COMMERCIAL, AGRICULTURAL, RETAIL, AND RESIDENTIAL PROPERTIES. THESE ASSESSMENTS WERE PERFORMED TO EVALUATE SITE CONDITIONS, POTENTIAL OFF-SITE LIABILITIES, ENVIRONMENTAL CONTROL SYSTEMS, AND SITE REMEDIATION COSTS IN ORDER TO ADVISE PROSPECTIVE BUYERS, OPERATORS, AND OWNERS OF POTENTIAL AND EXISTING ENVIRONMENTAL CONCERNS. MR. BAIRD HAS SUCCESSFULLY COMPLETED ASTM PHASE I SITE ASSESSMENTS FOR VARIOUS NATIONWIDE LENDING INSTITUTIONS THROUGHOUT THE UNITED STATES AND THE MICRONESIAN ISLAND OF GUAM.

SUBSURFACE INVESTIGATIONS: MR. BAIRD HAS ALSO COMPLETED SUBSURFACE INVESTIGATIONS AT COMMERCIAL AND RESIDENTIAL PROPERTIES THROUGHOUT THE UNITED STATES. SUBSURFACE INVESTIGATIONS HAVE INCLUDED THE REMOVAL AND PROPER CLOSURE OF UNDERGROUND STORAGE TANKS, THE INSTALLATION OF SOIL BORINGS AND GROUNDWATER MONITORING WELLS, AND THE SAMPLING OF ENVIRONMENTAL MEDIA.

EDUCATION

B.S. ENVIRONMENTAL SCIENCE, ACADIA UNIVERSITY, NOVA SCOTIA, CANADA

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

OSHA 40-HOUR HAZARDOUS WASTE OPERATIONS (HAZWOPER) CERTIFICATION



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ACOE WETLAND DELINEATION AND MANAGEMENT CERTIFICATION PROGRAM