



Annual Offsite Dose to Individuals from Gaseous Effluent Releases from the U.S. EPR for Bell Bend Nuclear Power Plant

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## **APPENDIX D: LOCAL DAIRY FARM REGISTRATIONS**

The Bureau of Animal Health and Diagnostic Services (BAHDS) of the Pennsylvania Department of Agriculture was contacted for a list of dairy farms in Luzerne and Columbia counties. These two counties comprise the entire 5 mile region of interest around BBNPP. Table D-1 shows the data that was provided in response to the request. The correspondences with the Bureau of Animal Health and Diagnostic Services are copied in this appendix, below.

No new milk animal locations were identified within 5 miles of BBNPP as a result of the BAHDS list.



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**Table D-1: Dairy Farms in Luzerne and Columbia Counties, Pennsylvania**

DAIRY ANIMALS IN COLUMBIA AND LUZERNE COUNTIES, PENNSYLVANIA

The spreadsheet below was received from the PA Bureau of Animal Health and Diagnostic Services (Joyce McLaughlin) on 8-31-2011.

Original spreadsheet filename = "Columbia and Luzerne dairy farms.xlsx"

No changes have been made to the spreadsheet other than adding this header information, and adding the "AREVA Comments" column on the right.

Note: "Prem" stands for "Premise" where dairy animals are located.

Note: Joyce McLaughlin (see above) said via email that registry on this list is optional on the part of the farmer.

Also, only milking (lactating) cows are cataloged. No meat animals, and no goats.

Prem Name	Prem Address Line 1	PremCity	County	Lactating Cattle Count	AREVA Comments
GOTTA GRO FARM	9 THUNDERBIRD RD	STILLWATER	COLUMBIA	30	more than 5 miles away
BEILER, JONAS M & BERTHA	970 SCHULTZ RD	BLOOMSBURG	COLUMBIA	36	more than 5 miles away
D J BOWMAN FARM (BOWMAN, DONALD J)	452A WHITES CHURCH RD	BLOOMSBURG	COLUMBIA	50	more than 5 miles away
DENT, NELSON M	153 DAIRY RD	BERWICK	COLUMBIA	40	On list as Dent (WNW, 4.0 miles)
FISHER, DANIEL S & MARY K	47 JERSEYTOWN RD	BLOOMSBURG	COLUMBIA	42	more than 5 miles away
FISHER, BENUEL E & ELSIE S	428A Washingtonville Rd	BLOOMSBURG	COLUMBIA	28	more than 5 miles away
HEMSARTH, BRUCE A & BRENDA S	112 HEMSARTH RD	MILLVILLE	COLUMBIA	120	more than 5 miles away
HESS, WILLIAM F	572 LOWER RAVEN CREEK RD	STILLWATER	COLUMBIA	96	more than 5 miles away
JURBALA, JANICE	1933 STATE ROUTE 254	ORANGEVILLE	COLUMBIA	86	more than 5 miles away
KARCHNER, DONALD S & DERWOOD N	660 HETLERVILLE RD	NESCOPECK	COLUMBIA	28	more than 5 miles away
LYONS DEN DAIRY	128 EYERSGROVE RD	MILLVILLE	COLUMBIA	0	more than 5 miles away
EHST, NATHAN S & JULIA	529 MOUNT ZION RD	CATAWISSA	COLUMBIA	70	more than 5 miles away
ROHRER, MELVIN R & BEULAH M	2120 HOLLOW RD	CATAWISSA	COLUMBIA	53	more than 5 miles away
ROBBINS FARM	423 ROBBINS RD	BLOOMSBURG	COLUMBIA	266	more than 5 miles away
RYMAN, KENNETH W JR & STEPHANIE A	24 ZENITH RD	NESCOPECK	COLUMBIA	49	more than 5 miles away
SHUMAN, DUANE E & BETTY J	222B MOUNTAIN PINK RD	BLOOMSBURG	COLUMBIA	27	more than 5 miles away



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STOLTZFUS, JOHN Z & FANNIE S	855 SCHULTZ RD	BLOOMSBURG	COLUMBIA	30	more than 5 miles away
STOLTZFUS, SAMUEL E & FANNIE S	115 BLUE JAY RD	MILLVILLE	COLUMBIA	25	more than 5 miles away
STOLTZFUS, BENUEL F	301 DANVILLE RD	BLOOMSBURG	COLUMBIA	35	more than 5 miles away
STOLTZFUS, STEPHEN S	853 SCHULTZ RD	BLOOMSBURG	COLUMBIA	25	more than 5 miles away
TUNAITIS, JAMES E	607 SHICKSHINNY RD	STILLWATER	COLUMBIA	14	more than 5 miles away
VERBYLA, LUKE & BONNIE	4502 RED ROCK RD	BENTON	COLUMBIA	76	more than 5 miles away
BUBBLING SPRING FARM	700 MILL GROVE RD	CATAWISSA	COLUMBIA	55	more than 5 miles away
KEENEY FARMS	31 PIED PIPER RD	BENTON	COLUMBIA	0	more than 5 miles away
WISE, JAY E SR	72 PIED PIPER RD	BENTON	COLUMBIA	90	more than 5 miles away
ZAGINAYLO, JOHN III & LAUNE	125 KACHINKA HOLLOW RD	BERWICK	COLUMBIA	35	more than 5 miles away
ZANOLINE, ANTHONY	1088 HETLERVILLE RD	NESCOPECK	COLUMBIA	50	more than 5 miles away
STOLTZFUS, JACOB F & FANNIE S	339 PHILLIPS RD	BLOOMSBURG	COLUMBIA	29	more than 5 miles away
FAIHOPITY FARMS (BROYAN, LINDA)	492 CEMETERY RD	BERWICK	COLUMBIA		more than 5 miles away
HERTZLER, JOHN S	169 DUG RD	BLOOMSBURG	COLUMBIA	30	more than 5 miles away
BEILER, SAMUEL S	1245 MILLERTOWN RD	MILLVILLE	COLUMBIA	40	more than 5 miles away
GREENWOOD ACRES	75 PATS LOWER RD	ORANGEVILLE	COLUMBIA		more than 5 miles away
HERTZLER, EMANUEL	137 DUG RD	BLOOMSBURG	COLUMBIA	29	more than 5 miles away
SMOKER, AMOS K OR KATIE S	273 ANTS HILL RD	BLOOMSBURG	COLUMBIA		more than 5 miles away
LAPP, AARON B. OR RACHEL Z.	405 WASHINGTONVILLE RD	BLOOMSBURG	COLUMBIA		more than 5 miles away
STEVENS, ERIC A	713 ZANERS BRIDGE RD	STILLWATER	COLUMBIA	27	more than 5 miles away
BEILER, LEVI S & ARIE F	108 TAYLOR RD	MILLVILLE	COLUMBIA	25	more than 5 miles away
BARCHIK, ROBERT	192 BAKER HILL RD	HUNTINGTON MILLS	LUZERNE	54	more than 5 miles away
BERGER, TIMOTHY B & MARLA J	4172 N MARKET ST	BERWICK	LUZERNE	0	If this is Berger Farm (SSW, 0.74 miles), already have it. If not, Berger Farm is closer. Plus - zero cows.
BLOSS, BARRY W	4128 ST MARY'S RD	WAPWALLOPEN	LUZERNE	40	On list as Bloss - more than 5 miles away
BRONSON, HALE JAMES & RICHARD W	1116 SWAMP RD	HUNLOCK CREEK	LUZERNE	50	more than 5 miles away
DANILOWICZ, EDWARD &	45 ACADEMY ST	STILLWATER	LUZERNE	60	more than 5 miles away

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JEAN					
DORAN, JAMES J	141 E SAINT MARYS RD	WILKES BARRE	LUZERNE	70	more than 5 miles away
DRASHER, KEVIN C	133 W CHERRY ST	NESCOPECK	LUZERNE	58	On list as Drasher (S, 3.0 miles)
HARRISON, GERALD J	609 BLOOMINGDALE RD	SHICKSHINNY	LUZERNE	50	more than 5 miles away
FOREST HEIGHTS FARM	678 FOLLIES RD	DALLAS	LUZERNE	74	more than 5 miles away
MICHAEL, KURT A & HOLLY M	36 FIRE HALL RD	SHICKSHINNY	LUZERNE	15	more than 5 miles away
PSZENICZNY, FRANK	91 RIDGE RD	BENTON	LUZERNE	106	more than 5 miles away
RINEHIMER, SCOTT	7983 BLUE RIDGE TRAIL	WAPWALLOPEN	LUZERNE	64	more than 5 miles away
VERBYLA, MARK & GAIL	212 MOORETOWN RD	SWEET VALLEY	LUZERNE	66	more than 5 miles away
YOST, CHARLES J & DAVID	8204 BLUE RIDGE TRAIL	WAPWALLOPEN	LUZERNE	32	more than 5 miles away
ZANOLINI DAIRY FARM	815 CEDAR HEAD RD	SUGARLOAF	LUZERNE	100	more than 5 miles away
DOHL, LARRY R & DORETHEA	308 OLD TIOGA TPKE	BENTON	LUZERNE	46	more than 5 miles away
HILLSIDE FARMS INC	71 HILLSIDE RD	SHAVERTOWN	LUZERNE	60	more than 5 miles away



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Correspondence with BAHDS:

From: McLaughlin, Joyce [jomclaughl@pa.gov]  
Sent: Thursday, August 25, 2011 2:27 PM  
To: CUMMING Edward (EP/PE)  
Subject: RE: Request for dairy animal locations  
Attachments: Columbia and Luzerne dairy farms.xlsx

Good Afternoon Mr. Cummings,

Only the herds that participate voluntarily in the BAHDS regulatory programs are only the list. No not every dairy herd would be on the list (i.e. raw milk herds). Yes, included in the information is the number of lactating cows on the farm. see the attachment.

Thank you.

Joyce A. McLaughlin I Clerical Support  
Bureau of Animal Health and Diagnostic Services  
Pennsylvania Department of Agriculture  
2301 North Cameron Street I Harrisburg, PA 17110  
v 717.783.6677 x223 I F 717.787.1868  
www.agriculture.state.pa.us

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From: CUMMING Edward (AREVA) [mailto:Edward.Cumming@areva.com]  
Sent: Thursday, August 25, 2011 2:20 PM  
To: McLaughlin, Joyce  
Subject: RE: Request for dairy animal locations

Thanks very much for the document. I sent that off this morning, with my check.

I have a couple questions regarding the information that will be provided:

1. Are all dairy cattle herds regulated, or is it something that is voluntary on the part of the herd owner? In other words, will ALL dairy herds be on the list?
2. Is there a size of "herd" that does not need to be, or does not get, registered? For example, will a person that keeps two cows end up on the list?



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Thanks again for any information you can provide.

Ed Cumming

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From: McLaughlin, Joyce [mailto:jomclaughl@pa.gov]  
Sent: Wednesday, August 24, 2011 1:58 PM  
To: CUMMING Edward (EP/PE)  
Subject: RE: Request for dairy animal locations

Good Morning Mr. Ed Cumming,

Thank you for contacting the Bureau of Animal Health and Diagnostic Services (BAHDS).

BAHDS maintains a list of dairy cattle herds regulated in the Commonwealth of Pennsylvania for a fee. The information included on the list is the name, mailing address, county, and number of lactating cows on the dairy cattle farm. BAHDS does not maintain regulatory programs for dairy goat herds. Information on dairy goat herds is not available through BAHDS.

The fees are calculated with a data processing set-up charge of \$75 plus an additional charge of 5¢ per name on the list. There are 54 dairy cattle herds registered in Columbia and Luzerne Counties in Pennsylvania. Fees are calculated at 5¢ per name, would equal \$2.70 plus a \$75 application fee equals a total fee in the amount of \$77.70. Please reference the attached document.

Please mail the attached document plus the appropriate fee to the Bureau of Administrative Services, Pennsylvania Department of Agriculture (PDA), 2301 North Cameron Street, Harrisburg, PA 17110. PDA does not accept credit card transactions at this time. Checks or money orders should be made payable to the Commonwealth of Pennsylvania.

Thank you.

Joyce A. McLaughlin I Clerical Support  
Bureau of Animal Health and Diagnostic Services  
Pennsylvania Department of Agriculture  
2301 North Cameron Street I Harrisburg, PA 17110  
v 717.783.6677 x223 I F 717.787.1868  
www.agriculture.state.pa.us

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From: CUMMING Edward (AREVA) [mailto:Edward.Cumming@areva.com]



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Sent: Wednesday, August 24, 2011 10:43 AM

To: McLaughlin, Joyce

Subject: Request for dairy animal locations

Dear Ms. McLaughlin,

Per our discussion on the phone yesterday, I would like to request a listing of dairy animal locations (addresses) in Luzerne and Columbia counties. If you have such information, I am interested in both dairy cows and goats. (In case my terminology is not quite right, I'm really interested in cows and goats that provide milk to families or the public.) Any additional information on the size of the farm (number of cows or goats) would also be of interest, if available.

I understand that you will email me a quote, and then I will send you a check for the required amount. If you have any questions, please feel free to email me or to call me at either of the below numbers.

Thanks very much.

Ed Cumming





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## **APPENDIX E: DETERMINATION OF RECEPTOR LOCATIONS**

### **E.1 Method for Determining Receptor Locations**

This Appendix documents the nearest residence, garden, and milk animal locations for use in the main body of this calculation, i.e., for ER Sect. 5.4 assessment of doses to individual members of the public due to radioactive gaseous effluent releases from BBNPP. The documentation includes descriptions, latitude/longitude coordinates, and aerial photographs. These locations were determined by several methods. These were:

- SSES 2010 Land Use Census results, transmitted in Reference [E1]. The locations in this report are relevant to SSES, and not necessarily to BBNPP. The report provides the locations of the following:
  - The nearest residence in each of the 16 meteorological sectors with 5-miles of SSES.
  - The nearest garden of greater than 500 sq. ft. producing broadleaf vegetation in each of the 16 meteorological sectors, within 5 miles of SSES. Note that the dose assessment for ER Sect. 5.4 does not limit itself to “broadleaf vegetation”, but considers other edible food crops, as well. Note that only gardens or tilled fields outside of the BBNPP Limit of Disturbance (LOD) [E2] were identified as receptors; some of these gardens are situated inside of the BBNPP property boundary.
  - ALL milk animals (cows and goats) within 5 miles of SSES. Note that in the Introduction to the SSES 2010 Land Use Census (transmitted as above), it is stated that the objective of the census was to catalog “all dairy animals (cows and goats) in each of the 16 meteorological sectors within a 5-mile radius of the Susquehanna SES.” The fact that the census included ALL milk animals within 5 miles, and not just the nearest in each sector, was confirmed in the response to Reference [E1].
- Meat Animals: It was felt that meat animals were not easily identified from aerial photos, so they are conservatively assumed to pasture, for the purposes of dose assessment in ER 5.4, at the “property/site boundary” in each of the 16 meteorological sectors. This approach was affirmed by UNE in Reference [E1]. ArcMap 10.0 was used with the ESRI map (described below) to determine the closest location, in each of the meteorological sectors, on the property boundary (not the Owner Controlled Boundary). This is reasonable, as there is currently no SSES Census record [E1] of meat animals being located within the proposed BBNPP Property Boundary. Additionally, this approach is conservative in some sectors, as many of the sectors are heavily wooded outside the Property Boundary, but meat animals are assumed to pasture there for the purposes of dose assessment. These locations are not discussed further in this Appendix. See Sect. 3 of this document for the specific identification of meat animal locations.
- The base maps used in ESRI ArcMap 10.0 were the best available United States Department of Agriculture Farm Services Agency (USDA FSA) National Agriculture Imagery Program (NAIP) imagery, using 2008 images (for this region), and were used in the visual identification of residences, gardens, and dairy farms. It was also used to document the locations, and to determine the distances, azimuths (relative to the plant vent stack), and latitude/longitude of each location. Distances were measured in ArcMap using the Military Analyst feature with geodesic distances.





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- Google Earth 2010 [E3] and Bing Maps [E4] were used as an additional source to clarify the locations identified in the ArcMap maps. The Bing Maps “Birds eye” view was particularly helpful in providing a very detailed oblique-angle view that allowed the viewer to more precisely determine the nature of a structure observed on the ArcGIS map.
- Several residences within the BBNPP property boundary will be vacated prior to BBNPP fuel load, as identified in References [E5]. The properties identified in this RFI response were marked on the ArcMap map, with the aid of Reference [E6]. Some of these properties were also identified in the SSES 2010 Land Use Census, with latitude/longitude coordinates provided; this also assisted in identifying the to-be-vacated properties.
- For Revision 002 of this document, the nearest residence in the ESE sector was changed since the Revision 001 nearest residence (Naunczek residence) was identified as being vacated prior to BBNPP fuel load [E5]. At the time of the current revision, the GIS system was not available for determining distances. Hence, a distance was scaled off of a large printout of a plant aerial photo [E8] that clearly showed the residences of interest. The distance from the plant vent stack to both of the residences mentioned above was the same, so the original GIS-determined distance in Table 3-2 was retained.

Each resident, garden, and milk animal location identified for use in the ER 5.4 dose assessment has been identified using Bing Maps and/or Google Earth images, below. Note the following regarding the photos in this Appendix:

- All photos are oriented with North at the top.
- All latitude/longitude values are “approximate”, and are given in decimal degrees as “longitude, latitude”. It is possible that the given latitude/longitude coordinates do not agree exactly with those elsewhere in the report, or with those found in the SSES 2010 Land Use Census report. This is due to slight differences in the visual placement of the cursor on the ArcGIS map when determining coordinates. The differences are negligible.
- For residences, the approximate geographic center point of the house was chosen as the point to which distance and sector were measured, and to which coordinates were determined. For gardens, the approximate nearest part of the garden to BBNPP was chosen. For milk animal locations, the approximate geographic center point of the main barn location was used.
- For the layout of the 16 meteorological sectors, and for the determination of azimuth and distance for each receptor location, the center of the BBNPP vent stack was selected as the point of origin. The coordinates, taken via AutoCAD from Reference [E7], are N340042.95, E2405064.07 (state plane coordinates, PA North 3701, NAD 83).

In addition, the following sources were explored for milk animal information:

- PA Dept. of Agriculture web site, accessed on August 23, 2011 at the following URL:

[http://www.agriculture.state.pa.us/portal/server.pt/gateway/PTARGS\\_0\\_2\\_24476\\_10297\\_0\\_43/AgWebsite/PublicationSearch.aspx?navid=11&parentnavid=0&](http://www.agriculture.state.pa.us/portal/server.pt/gateway/PTARGS_0_2_24476_10297_0_43/AgWebsite/PublicationSearch.aspx?navid=11&parentnavid=0&)

No directly useful information found on milk animals in the BBNPP vicinity.



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Below is a screenshot of the web site:



- “Ag Map” web site search at the following URL:

<http://agmap.psu.edu/Search/index.cfm?mode=adv>

This web site was searched for cow or goat businesses in Columbia and Luzerne Counties, using search words “cow”, “dairy”, “goat”, “milk.” The following bullets summarize the findings:

- Workhorse Farms, 191 Dumphill Rd, Luzerne County, PA. Grass-fed cattle for meat. Just outside the 4-mile circle, in the SW sector.
- Just Right Farm, 3679 Ridge Road, Bloomsburg, PA. Goat herd, but well outside 5-mile distance.
- Vinehurst Dairy Goats, Dallas, Luzerne County, PA. Well outside the 5-mile distance.
- Ever View Farm, 410 Klinger Hill Rd, Benton, Luzerne County, PA. Goat products, cattle, calves. Well outside the 5-mile distance.
- Artistic Acres Farm, 24 Ivey Dr., Bloomsburg, Columbia County, PA. Breeds goats for meat. Well outside the 5-mile distance.
- Violet Acres Farm, PO Box 724, Millville, Columbia County, PA. Sells goats for meat. Well outside the 5-mile distance.



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- Hilltop Farm, 48 Dean Pealer Lane, Benton, Columbia County, PA. Sells goats for meat. Well outside the 5-mile distance.
- Cow-a-Hen Farm, RD #2 Box262, Mifflinburg, PA. Raises and sells, beef, veal, chickens, turkeys, pork, eggs, etc. Well outside 5-mile distance.

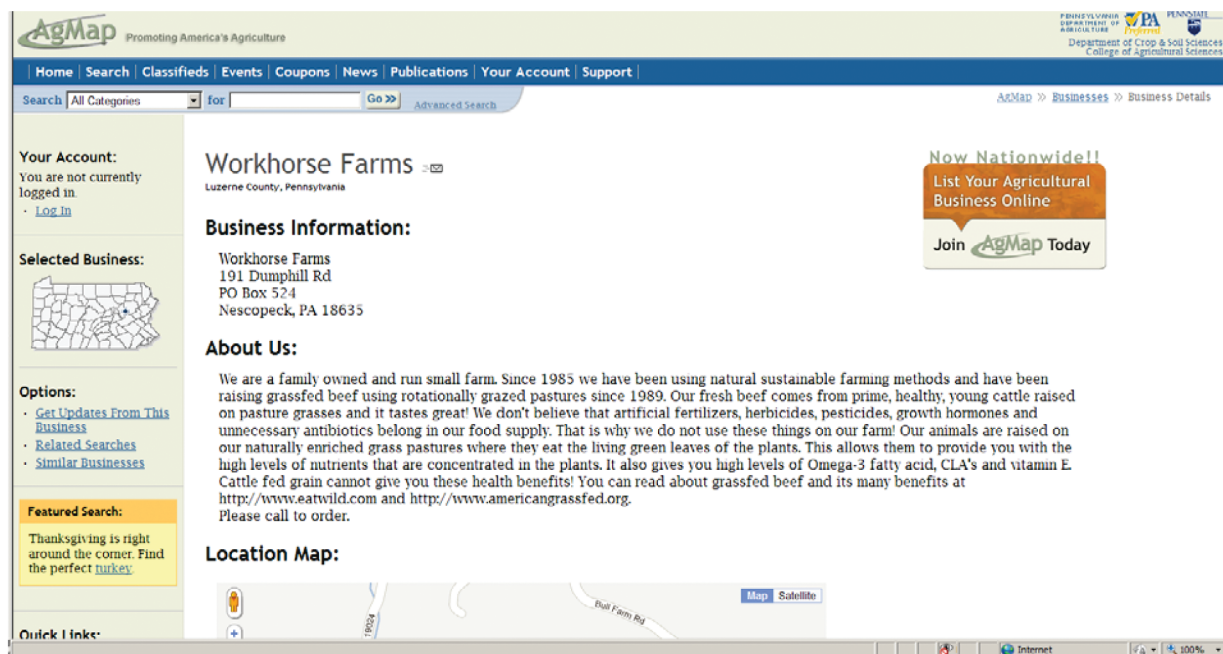
The primary page for conducting the advanced searches is shown below (note that any cut-off text, or any small text in the header for the web page, is not pertinent to the purpose of displaying this web page):

The screenshot displays the AgMap website interface. The top navigation bar includes links for Home, Search, Classifieds, Events, Coupons, News, Publications, Your Account, and Support. The search bar shows a search for 'cow' in 'Businesses'. A yellow banner at the top right says 'Don't forget to pick up a poinsettia for the holidays.' The left sidebar contains sections for 'Your Account' (logged out), 'Selected Businesses' (with a map of Pennsylvania), 'Options' (with a 'Save this search' link), 'Featured Search' (repeating the holiday banner), and 'Quick Links' (About AgMap, Frequently Asked Questions). The main content area shows 'Search Results' for 'cow' in 'Businesses' in 'Luzerne County, PA', with 3 matches found. The results are sorted by 'Relevance'. The first result is '100% Balliet AG Drums, Luzerne County, PA', last updated 08/23/2002, described as a mid-sized grain operation. The second result is '98% Charney Farms, Harding, Luzerne County, PA', last updated 10/08/2006, described as a small family-owned farm.



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The web page for the Workhorse Farms (the only farm identified on this web site that is within 5 miles of BBNPP) is show below (note that any cut-off text, any small text in the header for the web page, or any labels in the truncated map at the bottom of the web page are not pertinent to the purpose of displaying this web page):



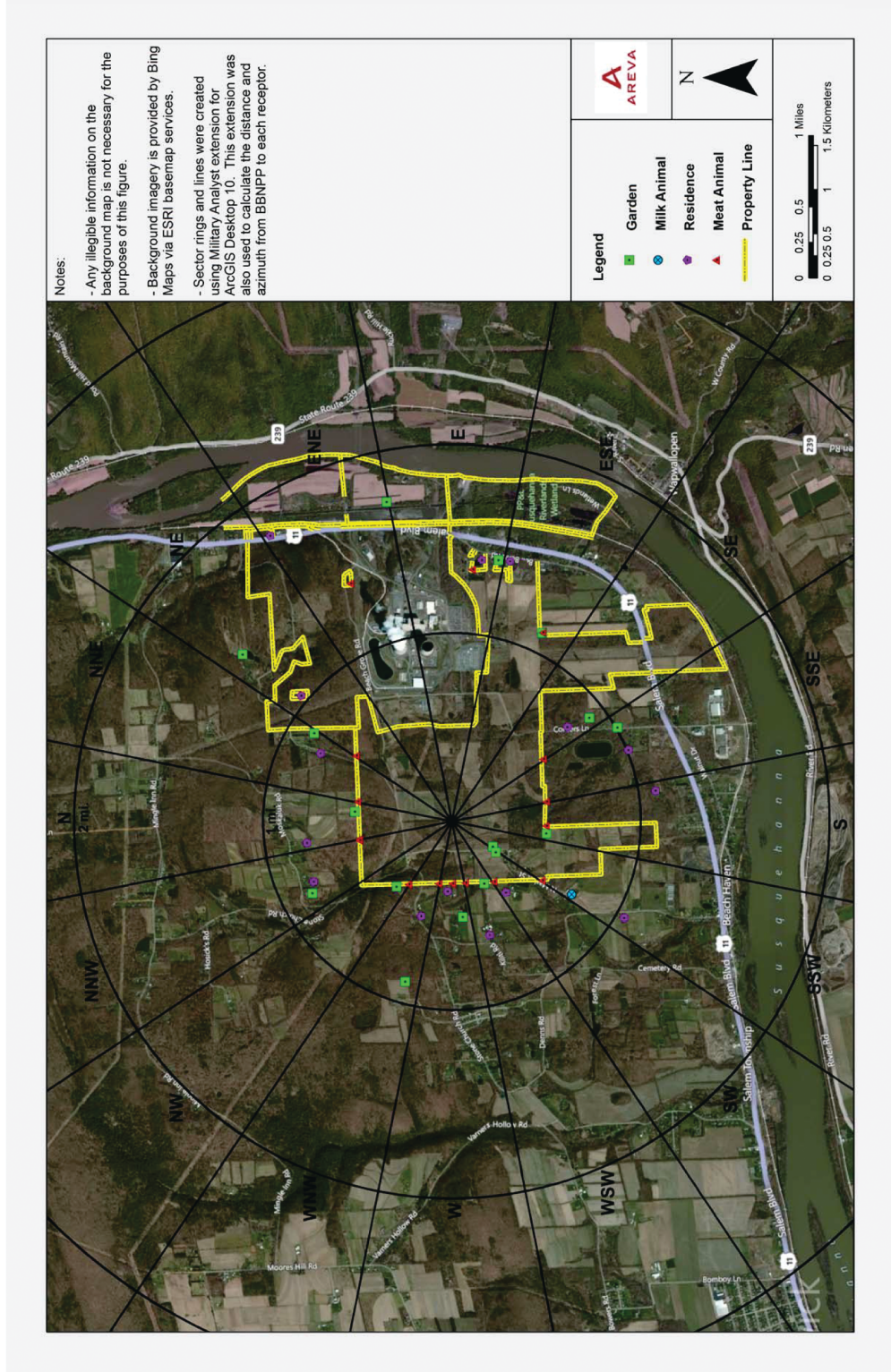
- PA Department of Agriculture, Bureau of Animal Health and Diagnostic Services: A spreadsheet was provided of registered dairy farms in Luzerne and Columbia counties. This information is provided in Appendix D.

It should be noted that the date on the ESRI aerial photo used for the base map and used, in part, to help identify receptor locations, is 2008. The Bing Maps and Google Earth images are not individually dated, but likely are of this vintage or later. This is acceptable for the determination of receptor locations for the ER 5.4 dose analysis due to the conservatisms built into the choices of locations and the dose assessment methodology, but also because a more thorough and up-to-date census will be conducted as part of the pre-operational Radiological Environmental Monitoring Program.

The receptor locations determined through the methods described above are summarized in Table 3-2 of this document, as well as in Figures E-1 and E-2 of this appendix.



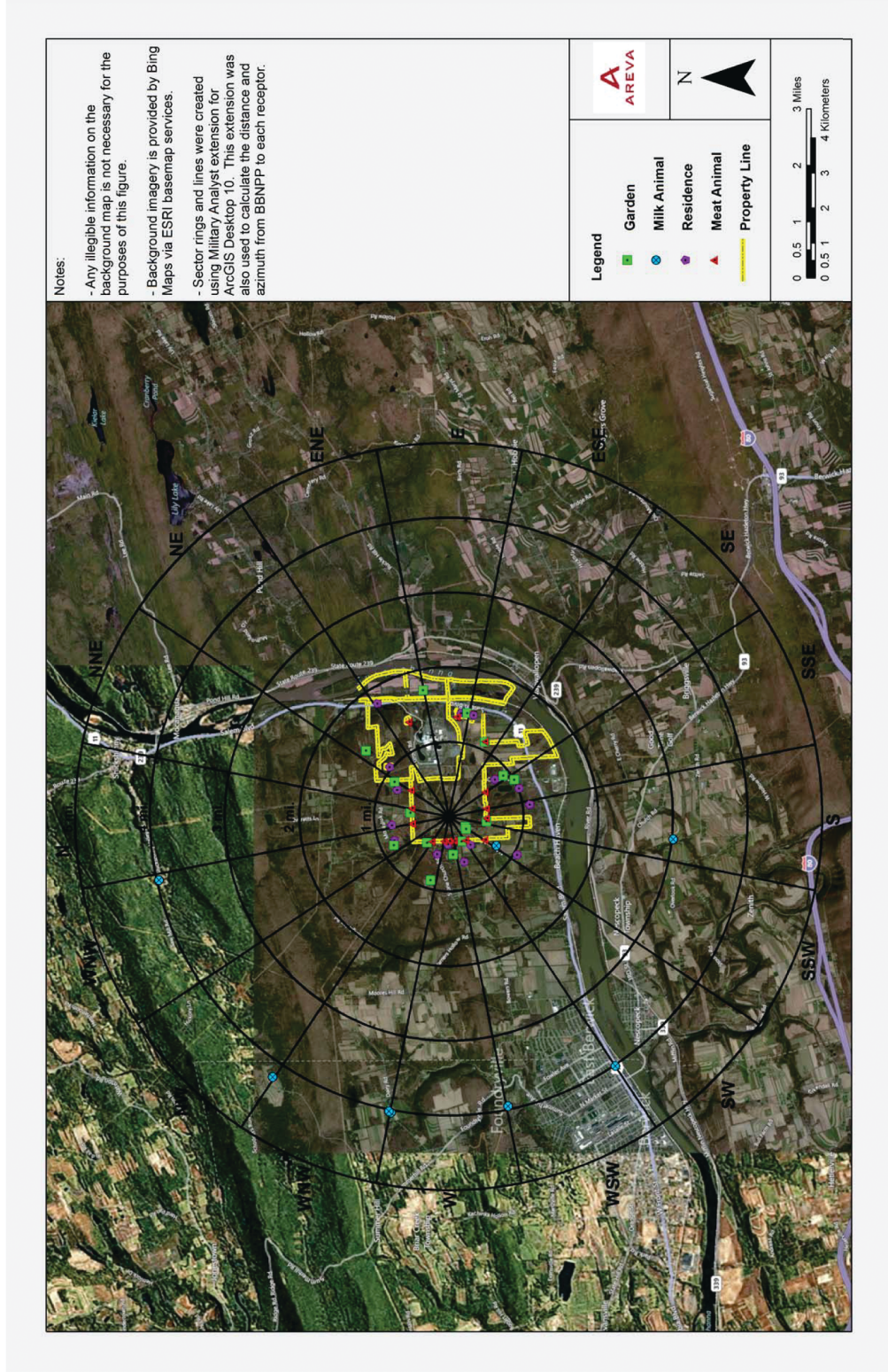
Figure E-1: Receptor Locations from 0 to 2 Miles from BBNPP



Any text in the aerial photograph portion of this figure is not necessary to the purposes of this document.



Figure E-2: Receptor Locations from 0 to 5 Miles from BBNPP



Any text in the aerial photograph portion of this figure is not necessary to the purposes of this document.





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## **E.2 References (Appendix E)**

- E1. AREVA Document Number 38-7011421-000, UniStar RFI #11-022 Rev. 1, "Response to AREVA BBNPP RFI EPR-11-046 (Rev 1), ER Section 2.7, 5.4, and FSAR Section 2.3.5, and 15," dated August 10, 2011.
- E2. AREVA Document Number 38-7011432-002, UniStar RFI #11-067, "Response Revision 2 to AREVA BB RFI EPR-11-105 LOD – ER 2.2, 2.4, 2.5.3, 4.1, 4.2 and 4.3," dated October 11, 2011.
- E3. Google Earth 2010, Google Imagery, 2011, and PA Department of Conservation and Natural Resources – PAMAP/USGS, GeoEye, Map data, 2011, accessed at web site <http://maps.google.com/maps>, access September 2011.
- E4. Bing Maps, Pictometry Bird's Eye, Pictometry International Corp., 2010 and Microsoft Corp., 2011, accessed at web site <http://www.bing.com/maps>, accessed September 2011.
- E5. AREVA Document Number 38-7011395-000, UniStar RFI #11-071, "Response to AREVA BB-RFI-EPR-11-106 FSAR 2.1.2 and ER 2.2, 4.4.1, 5.3.4, and 5.8.1 for BBNPP Cut and Fill," dated Aug. 11, 2011.
- E6. AREVA Document Number 38-7007478-000, UniStar RFI #11-240 "Response to AREVA RFI EPR-1-175 for ER 2.1, 2.2, 3.1, and 4.1 Technical Input for BBNPP Plot Plan Change," dated July 16, 2010.
- E7. AREVA Document Number 38-7008535-000, UniStar RFI #0-271 "Response to Response to AREVA BBNPP RFI EPR-10-561, ER Section ER 2.1, 2.2, 3.1, 3.7, 4.1, 4.2, 4.3, 4.4.1, 4.5, 5.1, 5.3, 5.8, 6.1, and 6.4 for BBNPP Plot Plan Change," dated September 10, 2010.
- E8. AREVA Document Number 38-7005213-001, Normandeau Associates, Inc. to P. Gluckler, "Transmittal Letter, Bell Bend NPP, Proposed Forest Clearing Figures," transmitted June 15, 2010 (Scaled distances from map entitled "Bell Bend Nuclear Power Plant Site 2010 Proposed Forest Clearing").