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November 11, 2010

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**BELL BEND NUCLEAR POWER PLANT
BBNPP PLOT PLAN CHANGE
COLA SUPPLEMENT, PART 3 (ER);
SECTION 2.2 AND RESPONSE TO
ER RAIs LU 3.7-1 & TE 4.3-2 (PARTIAL RESPONSE)
BNP-2010-294 Docket No. 52-039**

- References: 1) BNP-2010-175, T. L. Harpster (PPL Bell Bend, LLC) to U.S. NRC, "July 2010 BBNPP Schedule Update", dated July 16, 2010
- 2) BNP-2010-239, R. R. Sgarro (PPL Bell Bend, LLC) to U.S. NRC, "BBNPP Plot Plan Change COLA Supplement Schedule Update," dated September 22, 2010
- 3) BNP-2010-246, R. R. Sgarro (PPL Bell Bend, LLC) to U.S. NRC, "BBNPP Plot Plan Change Supplement Schedule Update," dated September 28, 2010
- 4) BNP-2010-276, R. R. Sgarro (PPL Bell Bend, LLC) to U.S. NRC, "BBNPP Plot Plan Change COLA Supplement, Part 2 (FSAR); Section 2.1," dated October 28, 2010

In References 1 and 2, PPL Bell Bend, LLC (PPL) provided the NRC with schedule information related to the intended revision of the Bell Bend Nuclear Power Plant (BBNPP) footprint within the existing project boundary which has been characterized as the Plot Plan Change (PPC). As the NRC staff is aware, the plant footprint relocation will result in changes to the Combined License Application (COLA) and potentially to new and previously responded to Requests for Additional Information (RAIs). PPL declassified this docketed schedule information from regulatory commitment status in Reference 3, with an agreement to update the staff via weekly teleconferences as the project moves forward.

PPL has committed to provide the NRC with COLA supplements, consisting of revised COLA Sections and associated RAI responses/revisions, as they are developed. These COLA supplements will only include the changes related to that particular section of the COLA and will not include all conforming COLA changes. Conforming changes for each supplement necessary for other COLA sections will be integrated into the respective COLA supplements and provided in accordance with the schedule, unless the supplement has already been submitted. In the latter case, the COLA will be updated through the normal internal change process. The revised COLA supplements will also include all other approved changes since the submittal of Revision 2. All COLA supplements and other approved changes will ultimately be incorporated into the next full COLA revision.

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NRC

Enclosure 1 provides the revised BBNPP COLA Supplement, Part 3 (Environmental Report), Section 2.2, Revision 2a. The revised BBNPP COLA section supersedes previously submitted information in its entirety. Enclosure 1 includes a reference to information withheld under 10 CFR 2.390. This information was provided in PPL letter BNP-2010-276, submitted October 28, 2010 (Reference 4). No departures and/or exemptions to this BBNPP COLA section have been revised as a result of the PPC.

There are no previously submitted NRC RAI responses that refer directly to the enclosed COLA section. The following previously submitted RAI responses were reviewed for impacts:

<u>RAI No.</u>	<u>Response Impacted? (Yes/No)</u>
STO 2.2-1	No
LU 2.2-1	No
TE 2.4-1	No

Enclosure 2 provides the response to NRC RAI No. LU 3.7-1 and a partial response to RAI No. TE 4.3-2. The following RAI responses are included with this submittal:

RAI No.
LU 3.7-1
TE 4.3-2 (Partial Response)

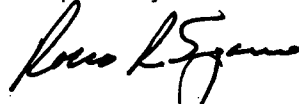
The only new regulatory commitment is to include the revised COLA section (Enclosure 1) in the next COLA revision.

If you have any questions, please contact the undersigned at 570.802.8102.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 11, 2010

Respectfully,



Rocco R. Sgarro

RRS/kw

Enclosures: 1) Revised BBNPP COLA Part 3 (ER); Section 2.2, Revision 2a
2) Response to Requests for Additional Information LU 3.7-1 and
TE 4.3-2 (Partial Response)

cc: (w/o Enclosures)

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Enclosure 1

Revised BBNPP COLA Part 3 (ER), Section 2.2, Revision 2a

2.2 LAND

This section establishes the nature and extent of current and proposed land use within the vicinity and region of the proposed site that might be impacted by station construction and operation. The review evaluates both on and offsite areas that will be modified for the sole purpose of supporting construction and maintenance of the proposed facilities.

2.2.1 The Site and Vicinity

The Bell Bend Nuclear Power Plant (BBNPP) site is located in Salem Township, Luzerne County, Pennsylvania, adjacent to Susquehanna Steam Electric Station (SSES) along the Susquehanna River in an area of open deciduous woodlands interspersed with grasslands, previously cultivated fields, and orchards. The largest community within 10 mi (16 km) of the site is the borough of Berwick, Pennsylvania, approximately 5 mi (8 km) to the southwest. The nearest metropolitan areas are Wilkes-Barre, Pennsylvania, approximately 20 mi (32 km) to the northeast; Allentown, Pennsylvania, approximately 50 mi (80 km) to the southeast; and Harrisburg, Pennsylvania, approximately 70 mi (113 km) southwest of the BBNPP site (PPL, 2006).

PPL Susquehanna, LLC, owner of SSES, owns 2,355 ac (953 ha) on both sides of the Susquehanna River. SSES is on the west side of the Susquehanna River on 1,575 ac (637 ha), that includes the SSES property (1,173 ac (475 ha)) and the Riverlands Recreation Area (401 ac (162 ha)), a strip of land between the power generating facilities and the Susquehanna River (PPL, 2006). The Riverlands Recreation Area includes natural and recreational areas:

- ◆ Riverlands Nature Center - The Nature Center is located in the Susquehanna Energy Information Center at the entrance to the Recreation Area.
- ◆ Riverlands Recreation Area - This recreation area on the west side of the river is a popular spot for picnicking, group outings, hiking, sports, and playing.
- ◆ Lake Took-A-While - A 30 ac (12 ha) fishing lake and a restored section of the North Branch Canal provide fishing opportunities and are open to the public. Boating is allowed, but no gasoline engines are permitted.
- ◆ Wetlands Nature Area - This 94 ac (38 ha) tract of riverine forest, marsh, swamp, and vernal pools has been set aside as an area for nature study and education. A portion of the long-abandoned North Branch Canal runs north-south across the property (PPL, 2006).

A map depicting the land use within the BBNPP Owner Controlled Area (OCA) Project Boundary is presented in Figure 2.2-1. Land use categories for this map are consistent with the land use classification codes listed in "USGS Land Use and Land Cover Data" (USGS, 2008). PPL Susquehanna, ~~LLC-LLC~~, PPL Bell Bend, LLC, and other entities of PPL Corporation currently ~~owns own~~ the entire BBNPP and SSES site. The BBNPP site will be divided into a west parcel and an east parcel. PPL Susquehanna, LLC, which owns 90% of SSES Units 1 and 2 and Allegheny Electric, which owns 10% of SSES Units 1 and 2, will retain ownership of the east parcel. PPL Bell Bend, LLC will be the owner of BBNPP and the owner of the west parcel as detailed in Figure 2.2-1. The owner and operator of BBNPP will be PPL Bell Bend, LLC.

The areas devoted to major uses of the land within the BBNPP OCA-siteProject Boundary are summarized in Table 2.2-2. In addition, Table 2.2-2 identifies the estimated acreage within each land use category following construction. The Table is consistent with USGS land use categories. The image used to create Figure 2.2-1 and Table 2.2-2 is part of a large scale

land-use classification conducted by the USGS and augmented by wetlands delineation and stream boundary field surveys within and adjacent to potential areas of disturbance inside of the BBNPP/SSES site boundary. The scale of this image provides a generalized land-use cover, with the exception of wetlands, which does not take into account small features and parcels of land. A more detailed figure and description of the site is available in Section 2.4.1. A map showing major land uses in the vicinity within 6 mi (10 km) of the project is presented in Figure 2.2-2 with land uses classified consistent with the 2008 USGS land use/cover categories (USGS, 2008). Major land uses in the 6 mi (10 km) vicinity of the project are summarized in Table 2.2-3. The vicinity is defined as the area encompassed within a radius of 6 mi (10 km) surrounding the plant site. A topographical map of the BBNPP OCA-site Project Boundary is presented in Figure 2.2-3 (USGS, 2008).

There are no known claims by Native Americans on lands within the BBNPP OCA-Project Boundary or within the 6 mi (10 km) radius of the BBNPP site. There are no known lands of special land-use within the BBNPP OCA-site. Special land-use categories are defined as Native American or military reservations, State and national parks, national monuments, national forests, wild and scenic rivers, designated coastal-zone areas, and wilderness areas.

State lands, as detailed in Table 2.2-4, within the vicinity of the BBNPP site are limited to areas of two state game lands and two state park lands. State Game Land No. 55 covers ~~2,470~~ 2,511 ac (~~1,000 ha~~) (1,016 ha) in Columbia County just west of the BBNPP site. State Game Land No. 260, located east of the BBNPP site, covers 3,087 ac (1,249 ha) in Luzerne County (PGC, 2006). The Pennsylvania Game Commission maintains/manages both the wildlife and its habitats within the Game Land boundaries and provides recreation and education for the general public. The two state park parcels, Theta Lands, occupy 109 ac (44 ha) north of the proposed site. The Theta Lands are part of the Theta Lands Conservation Project which encompasses more than 10,000 ac (4,047 ha) in Luzerne and Lackawanna Counties. These lands provide recreational opportunities and clean water to the people of this region (DCNR, 2008).

There are no known National Parks, National Forests, or National Monuments within the BBNPP site vicinity.

Private lands held in trust or through other use restrictions include two areas maintained by private owners through the North Branch Land Trust (NBLT) as detailed in Table 2.2-5 (NBLT, 2008). The NBLT property located to the north of the BBNPP site covers an area of 49 ac (20 ha) and connects with State Game Land No. 260. The second NBLT trust land, located to the south of the BBNPP site, occupies 88 ac (35 ha) (TCF, 2004).

One family farm is included in There are two residences within the BBNPP exclusion area boundary. There are no residents at this farm. Terms boundary that may remain occupied following the commencement of commercial operation. The terms of the contract contracts for the acquisition of this property these properties by PPL Bell Bend LLC provide access to this farm for family members, provided no residence is established and that these residences must be evacuated in the area is vacated event of an emergency if PPL Bell Bend LLC requests it. It, but may otherwise remain occupied during the lifetime of the previous owners.

Figure 2.2-1 and Figure 2.2-2 show major roads/highways and utility rights-of-way that cross and are in the vicinity of the BBNPP site. There is an operating rail line along both banks of the Susquehanna River within the 6 mi (10 km) vicinity of the BBNPP site. The BBNPP site is bordered on the south and east by the Susquehanna River. The Susquehanna River is frequented by recreational boaters, but is not used for commercial shipping. Egress from the

areas surrounding the site is limited to the north and west along U.S. Highway 11, which runs along the north-western bank of the Susquehanna River. (USGS, 1999)

No significant mineral resources within or adjacent to the BBNPP site have been identified. The only mineral resources occurring at the site are siltstone and sand and gravel (PPL, 1972). The siltstone could not be mined economically due its depth. Deposits of sand and gravel underlie most portions of the Susquehanna River Valley. A very small portion of these deposits are under the Susquehanna River floodplain at the OCA. ~~The mineral resources of the land areas of the BBNPP site are owned by the respective surface landowners. site. [Proprietary Information - Withheld under 10 CFR 2.390(a)(4)-See Part 9 of this COL Application].~~ There are no mineral resources currently being mined located adjacent to the BBNPP site.

The BBNPP site is located in the southwestern quadrant of Luzerne County. This area is characterized by forests, open, undeveloped, agricultural, mined, and developed land. The developed portions of this area are located in and around the city of Hazleton and the eastern outskirts of Berwick Borough. As shown on Figure 2.2-4, most of the area within the BBNPP OCA Project Boundary is zoned as an agricultural district with ~~a much smaller portion~~ substantial portions zoned as a conservation district. ~~Small areas of the site to the north district and east adjacent to the SSES facility are zoned heavy industrial.~~ (Salem, 2008).

The proposed project also requires approval of a proposed plan of development which must be obtained from Salem Township. The Salem Township Planning and Zoning Commission is responsible for managing the consolidated review of the environmental, engineering, socioeconomic, planning and cost of those projects which require an approved Plan of Development. Various state and county agencies provide assistance and various plan and permit approvals to support the review and approval effort.

2.2.2 Transmission Corridors and Offsite Areas

2.2.2.1 Existing Corridors

The BBNPP property lies within the Pennsylvania, New Jersey and Maryland (PJM) Regional Transmission Organization. The existing transmission system, located on the Susquehanna Steam Electric Station (SSES) site, consists of two substations: 1) the 500 kV substation, which has two 500 kV circuits, and 2) the 230 kV T-10 substation, which has three 230 kV circuits. A 230 kV switchyard is also located on the SSES site, which has seven 230 kV circuits and one 500/230 kV interconnection.

Six transmission lines connect SSES to the regional grid and will be used by ~~BBNPP~~ BBNPP (PPL, 2006). There are three short ties in the SSES vicinity totaling approximately 6 mi (10 km) that connect SSES to the 230 kV electrical system. These ties are located primarily within SSES controlled areas and are not accessible to the public. However, U.S. Highway 11, PA State Highway 239, and other paved roads in the immediate plant vicinity are crossed by the short ties. Stanton #2 is a single circuit 230 kV line which runs generally northeast from SSES for approximately 30 mi (48 km) in a 100 to 400 ft (30 to 121 m) wide corridor. The Wescosville 500 kV line connects SSES with the Alburtis substation. It runs generally southeast for approximately 75 mi (121 km) in a 100 to 400 ft (30 to 107 m) wide corridor. The Sunbury #2 is a 500 kV line which shares a corridor with the Sunbury #1 230 kv line and runs for approximately 30 mi (48 km) in a west-southwest direction. The corridor is approximately 325 ft (99 m) wide. Existing transmission corridors are shown in Figure 2.2-1 and Figure 2.2-2 and Figure 2.2-5 (PPL, ~~2006~~)2006.

2.2.2.2 Proposed Transmission System Modifications

No additional transmission corridors or other offsite land use would be required to connect the new reactor unit to the existing electrical grid. The following facilities would be constructed on the BBNPP site:

- ◆ One new 500 kV substationswitchyard to transmit power from BBNPP; and
- ◆ Two new 500 kV, 4,260 MVA circuits on individual towers, connecting the BBNPP substation to the existing SSES 500 kV Yard, approximately 0.460.50 mi (0.74(0.80) km) in length, and to the proposed 500 kV Susquehanna Yard #2, approximately 0.850.75 mi (1.37(1.21) km) in length;
- ◆ One new 500 kV transmission system switchyard (Susquehanna 500 kV Yard #2); and
- ◆ Expansion of the existing Susquehanna 500 kV Yard.

Additionally, the 230 kV transmission lines currently passing through the BBNPP site will be relocated to run alongto the northern boundary north of the owner controlled area Beach Grove Road in order to provide a buffer from the BBNPP Circulating Water System cooling towers and provide additional areas for the location of plant-related structures. An expansion of the existing SSES 500 kV switchyard will be required to accommodate the connection to the new BBNPP switchyard.

~~Numerous breaker upgrades and associated modifications would also be required at other existing substations and switchyards. All of the offsite modifications would be implemented within the existing substations and switchyards (Section 1.2.5). Additionally, based on the results of a generator In its generation interconnection impact study Impact Study Restudy (PJM, 2008), certain sections of PJM identified that BBNPP contributes to two offsite previously identified transmission lines will need study upgrades for overloads, initially caused by prior Queue position generation additions. Any related off-site modifications are due to prior Queue position generation additions, and will be reconducted to avoid network overloads during peak usage periods implemented independent of BBNPP.~~

2.2.2.3 Land Use

In total, for the purpose of connecting SSES to the transmission system, PPL Susquehanna has approximately 150 mi (241 km) of corridor that occupy approximately 3,341 ac (1,352 ha) crossing eight counties (Luzerne, Carbon, Columbia, Lehigh, Northampton, Northumberland, Montour, and Snyder). BBNPP is expected to utilize these existing corridors as well. The corridors pass through land that is primarily agricultural or forest land. The areas are mostly remote, with low population densities. The longer lines cross numerous state and U.S. highways. Impact of these corridors on land usage is minimal; farmlands that have corridors passing through them generally continue to be used as farmland. (PPL, 2006).

Additionally, SSES and BBNPP will both be connected to the existing Susquehanna-Roseland transmission line that will be brought into service in 2012, independent of the BBNPP, as described in FSAR Chapter 8. Land use within the new transmission corridor is expected to be similar to that of the existing corridors.

2.2.3

The Region

The region within a 50 mi (80 km) radius of the BBNPP site includes all or part of 22 counties in Pennsylvania. The 50 mi (80 km) region including major waterways and highways are shown in Figure 2.2-6. Interstate 81 (I-81) passes east of the site intersecting I-80 to the south of the

BBNPP site. These two interstates connect with portions of I-84, I-380, I-476, and I-78 which are all within a 50 mi (80km) radius of the site. (USGS, 1999)

Land acreage devoted to major uses within the 50 mi (80 km) region are presented in Table 2.2-6 and shown on Figure 2.2-7. The land use/cover categories used in the table are those used by the U.S. Geological Survey. Principal agricultural commodities, dollar values of produced commodities, amount of county land used for agriculture, and the average land value based on the last (2002) U.S. Department of Agriculture survey, for these principal agricultural commodities are summarized in Table 2.2-7 (USDA, 2002).

This section focuses on two Pennsylvania counties (Luzerne and Columbia Counties) within the region for the potential construction and operation of the BBNPP site which is adjacent to the existing SSES site. The region is defined as an area within a 50 mi (80 km) radius of the site, but excludes the site and vicinity.

More than 89% of the current SSES employees reside in Luzerne and Columbia counties (PPL, 2006). Most land use or population changes would occur in these two counties where the construction activity would occur and where the construction and operation employees would be expected to live. As discussed in Section 2.2.2, the proposed transmission system activities would occur on the existing SSES site property and at existing substations along existing transmission corridors. The addition of BBNPP only requires a new substation and new transmission lines on the BBNPP site to connect the unit to the existing SSES system. The 230 kV transmission lines currently passing through the BBNPP site will be relocated to run along the northern boundary of the Owner Controlled Area in order to provide a buffer from the BBNPP CWS cooling towers and provide additional areas for the location of plant-related structures. An expansion of the existing Susquehanna 500 kV switchyard will be required to accommodate the connection to the new BBNPP switchyard (PPL, ~~2006~~-2006).

Road access to SSES is via U.S. Route 11, a two-lane paved road with a northeast southwest orientation (Figure 2.1-2 and Figure 2.1-3). SSES lies to the west of U.S. Route 11 and the Susquehanna River. Approximately 4 mi (6.4 km) north of SSES, U.S. Route 11 intersects with State Route (SR) 239, which travels in a northwest-southeast direction. East of this intersection, SR 239 crosses the Susquehanna River.

Several miles southwest of SSES, U.S. Route 11 intersects with SR 93. East of this intersection, SR 93 crosses the Susquehanna River. East of the intersection of SR 93 and the Susquehanna River, SR 93 intersects SR 339, which has a northeast-southwest orientation. Five to ten miles (8 to 16 km) south of SSES, SRs 93 and 339 intersect with Interstate 80, which has an east to west orientation. Five to ten miles southeast of SSES, Interstate 80 intersects with Interstate 81, which has a northeast-southwest orientation.

Employees traveling from the north or northwest of SSES would use SR 239 and U.S. Route 11 to reach the station. Employees traveling from the northeast would use U.S. Route 11. Employees traveling from the south or southwest of SSES could use varying combinations of the following roads to reach the station: Interstate 80, SR 339, SR 93, and U.S. Route 11. Employees traveling from the east and southeast could use SR 239, Interstates 80 and 81, SR 93, and U.S. Route 11. When nearing SSES, all employees must use U.S. Route 11. (PPL, 2006)

Major land-based transportation routes and utility routes within the region are depicted in Figure 2.2-2 and Figure 2.2-5. An existing gas transmission line is shown on Figure 2.2-2. (USGS, 1999)

Because of the location of BBNPP, the potential land use impacts would be greatest in Luzerne County. Potential population impacts would be greatest in Luzerne County and Columbia County as discussed earlier in this section. It is expected that the future potential employee relocation would likely follow the same trend. Therefore, this section excludes discussion of the 50 mi (80 km) region and focuses primarily on the two counties within the region. Table 2.2-8 and Table 2.2-9 indicate six land use classifications for land in Luzerne County and Columbia County. (USGS, 1999)

The three classifications of barren, wetlands and water together account for 6% and 2% of total county lands for Luzerne and Columbia Counties, respectively. Urban or built-up lands occupy little of both counties' land (Luzerne County 11% and Columbia County 7%). The majority of each county is dominated by forest and agricultural lands. A combined total of 82% of Luzerne County's land use and 91% of Columbia County's land use fall within these two categories.

Major trust lands in the region are shown in Figure 2.2-7 and are summarized in Table 2.2-10 (TCF, 2004). While there are no known trust holdings in Columbia County, trust holdings within Luzerne County generally consist of several small holdings instead of large individual tracts of land. The known trust lands within Luzerne County are controlled by a mix of private owners and the North Branch Land Trust. These eight trust lands occupy 1,913 ac (774 ha). (TCF, 2004)

County and local parks within the 50 mi (80 km) region are shown in Figure 2.2-7 and are summarized in Table 2.2-11 (PCS, 1998). There are 255 known county and local parks within the region. Two of these areas (Moon Lake and Seven Tubbs Nature Area) are located in Luzerne County and account for 1,386 ac (561 ha) of the lands accessible to the public. Two more of these areas (Twin Bridges and Briar Creek) are located within Columbia County and account for 139 ac (56 ha) of publicly accessible land. (PCS, 1998)

State controlled lands within the region mainly comprise State Parks, Game Lands, and Forests. These areas are shown in Figure 2.2-7 and are summarized in Table 2.2-12, Table 2.2-13, and Table 2.2-14 respectively. Although no state parks fall solely within Columbia County, it does share one of Luzerne County's six state parks (Theta Lands, Fish Commission Lands, Frances Slocum, Lehigh Gorge Nescopeck, and Ricketts Glen) which provide a total of 39,065 ac (15,808 ha) to the general public (DCNR, 2008). Five State Game Lands fall with the boundary of Columbia County, adding 71,404 ac (28,896 ha) to public land use while Luzerne County provides the public with 12 game lands totaling 106,211 ac (42,982 ha) (PGC, 2006). There are two state forests within the 50 mi (80 km) region falling within Luzerne and Columbia Counties. Luzerne County holds the Lackawanna State Forest 13,142 ac (5,318 ha) and Columbia holds the Weiser State Forest 28,736 ac (11,629 ha) within its boundaries. (DCNR, 2006a) (DCNR, 2008) (PGC, 2006)

Columbia County provides one of eight Wild/Natural Areas within the 50 mi (80 km) region. The Jakey Hollow Natural Area occupies 51 ac (21 ha) of the county's lands and provides recreation and outdoor activities for the surrounding public (DCNR, 2006b). The Wild/Natural areas are shown in Figure 2.2-7 and are summarized in Table 2.2-15.

2.2.4 References

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Table 2.2-1 — Land Use on the BBNPP Site

Land Use Category	Acres	Hectares	Percent of Total
Urban or Built-up	21.0	8.5	2.4
Barren	6.3	2.5	0.7
Wetlands	196.0	79.3	22.2
Water	4.3	1.7	0.5
Forest	402.5	162.9	45.6
Agricultural	251.9	102.0	28.6
Total	882.0	357.0	100

Table 2.2-2— Land Use Categories within BBNPP Project Boundary: Pre- and Post-Construction

Land Use Category	Pre-Construction			Post-Construction		
	Acres	Hectares	Percent of Total	Acres	Hectares	Percent of Total
<u>Urban or Built-up</u>	<u>213.4</u>	<u>86.4</u>	<u>10.7</u>	<u>881.2</u>	<u>356.6</u>	<u>44.3</u>
<u>Barren</u>	<u>21.0</u>	<u>8.5</u>	<u>1.1</u>	<u>18.0</u>	<u>7.3</u>	<u><1</u>
<u>Wetlands</u>	<u>158.6</u>	<u>64.2</u>	<u>8.0</u>	<u>156.6</u>	<u>63.4</u>	<u>7.9</u>
<u>Water</u>	<u>44.3</u>	<u>17.9</u>	<u>2.2</u>	<u>44.0</u>	<u>17.8</u>	<u>2.2</u>
<u>Forest</u>	<u>1,114.6</u>	<u>451.1</u>	<u>56.0</u>	<u>684.6</u>	<u>277</u>	<u>34.4</u>
<u>Agricultural</u>	<u>439.1</u>	<u>177.6</u>	<u>22.1</u>	<u>206.6</u>	<u>83.6</u>	<u>10.4</u>
<u>Total</u>	<u>1,991.0</u>	<u>805.7</u>	<u>100</u>	<u>1,991.00</u>	<u>805.7</u>	<u>100</u>

Table 2.2-3— Land Use Categories within 6 mi (10 km) Vicinity

Land Use Category Land Use Category	Acres Acres	Hectares Hectares	Percent of Total Percent of Total
Urban or Built-up Urban or Built-up	6,721 6,411	2,720 2,594	9 9
Barren Barren	335 455	136 184	>1 <1
Wetlands Wetlands	762 902	308 365	4 1
Water Water	2,433 2,468	985 999	3 3
Forest Forest	47,283 47,419	19,135 19,190	65 66
Agricultural Agricultural	14,848 14,727	6,009 5,960	21 20
Total Total	72,382 72,382	29,292 29,292	100 100

Table 2.2-4— State Controlled Lands within 6 mi (10 km) Vicinity

County	Type	Name	Acres	Hectares
Columbia	State Game Land	SGL No. 55	2,470 2,511	1,000 1,016
Luzerne	State Game Land	SGL No. 260	3,087	1,249
Luzerne	State Preserve	Theta Lands	109	44

Table 2.2-5— Trust Land within 6 mi (10 km) Vicinity

Trust Land	Owner	County	Acres	Hectares
North Branch Land Trust Property	Privately Owned Conservancy	Luzerne	49	20
North Branch Land Trust Property	Privately Owned Conservancy	Luzerne	88	35

Table 2.2-6— Land Use Categories within 50 mi (80 km) Region

Land Use Category	Acres	Hectares	Percent of total
Urban/Built-up	468,132	189,446	9
Barren	68,592	27,758	1
Wetlands	83,797	33,911	2
Water	84,026	34,004	2
Forest	3,279,101	1,327,005	65
Agricultural	1,042,837	422,021	21
Total	5,026,484	2,034,146	100

Table 2.2-7— Land Use Categories within 50 mi (80 km) Region

County	Total Farmland Acres (Hectares)	Land Value (Dollars per acre)	Grains	Tobacco	Vegetables, Melons, Potatoes	Fruits, Nuts, Berries	Nursery, Greenhouse, Sod	Hay	Poultry, Eggs	Cattle	Dairy Products, Cows	Equine	Aquaculture
Values listed in 1000's of dollars													
Bradford	302,475 (122,407)	\$1,790	\$1,175		\$752		\$1,534	\$3,204		\$27,097	\$54,922	\$87	
Berks	215,679 (87,282)	\$5,527	\$10,203		\$2,312	\$4,436	\$96,809	\$4,924	\$70,845	\$18,252	\$59,970	\$477	\$244
Carbon	19,257 (7,793)	\$4,436	\$238				\$3,698	\$497	\$22	\$344	\$505	\$71	\$61
Columbia	123,514 (49,984)	\$3,137	\$4,739		\$3,524		\$6,415	\$1,219	\$2,499	\$1,929	\$8,832	\$105	\$82
Dauphin	94,983 (38,438)	\$5,291	\$4,493	\$29	\$1,217	\$843	\$1,197	\$2,007	\$14,248	\$5,957	\$15,100	\$209	\$69
Lackawanna	32,931 (13,327)	\$3,205			\$3,832	\$668	\$3,262	\$618			\$3,110	\$477	
Lebanon	125,066 (50,612)	\$5,349	\$7,081	\$150	\$3,950	\$713	\$4,138	\$963	\$68,446	\$18,499	\$58,294	\$184	\$1,053
Lehigh	91,304 (36,949)	\$4,504	\$8,332			\$2,510	\$21,386	\$1,944		\$1,066	\$3,267	\$553	
Luzerne	73,216 (29,629)	\$3,541	\$1,364		\$7,822	\$1,714	\$6,136	\$767	\$33	\$921	\$3,100	\$109	
Lycoming	177,347 (71,770)	\$2,318	\$4,664	\$37	\$1,291	\$1,957	\$4,602	\$2,410	\$4,660	\$8,664	\$14,990	\$176	\$64
Monroe	32,938 (13,320)	\$5,191	\$882		\$641	\$242	\$2,348	\$454	\$17	\$324	\$360	\$67	\$1,014
Montour	39,964 (16,172)	\$2,996		\$80	\$226	\$253		\$448	\$1,604	\$1,721	\$4,332		
Northampton	77,556 (31,386)	\$4,862	\$6,866		\$1,522	\$840	\$2,486	\$1,419	\$84	\$1,034	\$6,041	\$42	
Northumberland	119,129 (48,210)	\$3,099	\$10,004	\$416	\$4,644	\$1,356	\$9,040	\$969	\$20,744	\$31,886	\$11,485	\$88	
Pike	10,113 (4,093)	\$2,878			\$15		\$992	\$38		\$29	\$432		
Schuylkill	110,946 (44,898)	\$3,383	\$3,976		\$5,716	\$1,026	\$16,717	\$1,624	\$21,535	\$3,045	\$7,206	\$127	\$1,922
Snyder	100,034 (40,482)	\$3,558	\$2,452	\$51	\$2,205	\$1,191	\$402	\$832	\$30,734	\$10,913	\$18,855	\$117	
Sullivan	31,096 (12,584)	\$1,878	\$48				\$249	\$291	\$1	\$1,105	\$5,152	\$59	\$5
Susquehanna	189,287 (76,601)	\$2,162	\$130		\$152	\$309	\$407	\$1,390		\$13,426	\$26,093	\$106	
Union	69,424 (28,095)	\$4,156	\$3,148				\$642	\$968	\$15,350	\$5,920	\$21,701		
Wayne	113,167 (45,797)	\$2,111	\$42		\$215	\$370	\$753	\$979	\$51	\$2,296	\$15,667	\$117	
Wyoming	61,846 (25,028)	\$2,276	\$307		\$530	\$203	\$780	\$743	\$3	\$1,123	\$7,592		
Note: Values are for top agricultural commodities listed for each county. All commodity sales for 2002 Census are not listed.													

Table 2.2-8— Land Use Categories within Luzerne County

Land Use Category	Acres	Hectares	Percent of Total
Urban or Built-up	65,383	26,459	11
Barren	12,628	5,110	2
Wetlands	12,791	5,176	2
Water	13,968	5,653	2
Forest	410,138	165,977	71
Agricultural	65,573	26,536	12
Total	580,481	234,912	100

Table 2.2-9— Land Use Categories within Columbia County

Land Use Category	Acres	Hectares	Percent of Total
Urban or Built-up	22,010	8,907	7
Barren	2,133	863	1
Wetlands	1,294	524	0
Water	4,082	1,652	1
Forest	194,166	78,576	62
Agricultural	89,770	36,328	29
Total	313,454	126,850	100

Table 2.2-10— Trust Lands within 50 mi (80 km) Region

County	Number of Land Trusts	Total Acres	Total Hectares
Berks	44	3,455	1,398
Carbon	3	9,189	3,719
Lackawanna	19	3,697	1,496
Lebanon	1	173	70
Lehigh	1	15	6
Luzerne			
Trust Land			
Private Owner		312	126
Private Owner		1,248	505
Private Owner		22	9
Private Owner		32	13
Private Owner		106	43
North Branch Land Trust Property		49	20
North Branch Land Trust Property		88	35
North Branch Land Trust Property		57	23
Luzerne Total	8	1,913	774
Lycoming	7	418	169
Monroe	174	5,567	2,253
Schuylkill	2	860	348
Susquehanna	5	1,458	590
Wayne	2	461	187
Wyoming	2	188	76

Table 2.2-11— County and Local Parks within 50 mi (80 km) Region

County	Number Of Parks	Total Acres	Total Hectares
Berks	178	8,629	3,492
Carbon	2	30	12
Columbia			
Twin Bridges		2	1
Briar Creek		137	55
	2	139	56
Dauphin	1	71	29
Lackawanna	4	15	6
Lehigh	39	3,255	1,317
Luzerne			
Moon Lake Park		802	325
Seven Tubbs Nature Area		584	236
Luzerne Total	2	1,386	561
Lycoming	1	430	174
Monroe	5	276	112
Montour	1	5	2
Northampton	20	860	348

Table 2.2-12— State Park Lands within 50 mi (80 km) Region

County	State Park	Acres	Hectares
Carbon	Beltzville	3,559	1,440
Carbon	Hickory Run	14,129	5,718
Lackawanna	Theta Lands	28,312	11,458
Lackawanna	Archbald Pothole	140	57
Lackawanna	Lackawanna	1,416	573
Luzerne	Theta Lands	16,256	6,578
Luzerne	Fish Commission Land	321	130
Luzerne	Frances Slocum	981	397
Luzerne	Lehigh Gorge	5,094	2,061
Luzerne	Nescopeck	3,627	1,468
Luzerne/Columbia	Ricketts Glen	12,786	5,174
Lycoming	Susquehanna	51	21
Monroe	Big Pocono	1,321	535
Monroe	Gouldsboro	2,395	969
Monroe	Tobyhanna	5,502	2,227
Northampton	Jacobsburg	1,032	418
Northumberton	Milton	42	17
Schuylkill	Swatara	3,453	1,397
Schuylkill	Tuscora	1,639	663
Sullivan	Worlds End	716	290
Union	Shikellamy	32	13
Wayne	Theta Lands	1,257	509
Wayne	Varden Conservation Area	346	140

Table 2.2-13— State Game Lands within 50 mi (80 km) Region

County	Number of State Game Lands	Total Acres	Total Hectares
Berks	6	40,858	16,535
Bradford	9	90,247	36,522
Carbon	6	57,061	23,092
Columbia			
SGL No. 329		1,701	688
SGL No. 55		2,470	1,000
SGL No. 58		12,753	5,161
SGL No. 226		4,250	1,720
SGL No. 13		50,229	20,327
Columbia Total	5	71,404	28,896
Dauphin	3	63,532	25,710
Lackawanna	6	58,078	23,503
Lebanon	2	54,317	21,981
Lehigh	3	18,193	7,362
Luzerne			
SGL No. 119		8,235	3,333
SGL No. 207		2,038	825
SGL No. 224		490	198
SGL No. 206		1,515	613
SGL No. 91		17,286	6,995
SGL No. 149		1,987	804
SGL No. 187		8,284	3,352
SGL No. 57		46,155	18,678
SGL No. 260		3,087	1,249
SGL No. 292		615	249
SGL No. 119		8,235	3,333
SGL No. 187		8,284	3,352
Luzerne Total	12	106,211	42,982
Lycoming	8	66,632	26,965
Monroe	8	51,513	20,847
Montour	1	1,220	494
Northampton	1	5,841	2,364
Northumberland	5	12,624	5,109
Schuylkill	17	117,105	47,391
Snyder	2	1,450	587
Sullivan	5	137,518	55,652
Union	3	3,555	1,439
Wayne	3	10,937	4,426
Wyoming	5	200,929	81,313

Table 2.2-14— State Forest Lands within 50 mi (80 km) Region

County	State Forest	Acres	Hectares
Columbia	Weiser	28,736	11,629
Luzerne	Lackawanna	13,142	5,318
Monroe	Delaware	15,786	6,388
Sullivan	Loyalsock	114,494	46,334
Union	Bald Eagle	169,402	68,554
Union	Tiadahton	37,132	15,027

Table 2.2-15— Wild and Natural Areas within 50 mi (80 km) Region

County	Wild/Natural Area	Acres	Hectares
Columbia	Jakey Hollow Natural Area	51	21
Lackawanna	Spruce Swamp Natural Area	70	28
Lycoming	Devil's Elbow Natural Area	391	158
Lycoming	Mcintyre Wild Area	7,251	2,934
Pike	Pine Lake Natural Area	72	29
Sullivan	Tamarack Run Natural Area	199	81
Sullivan	Kettle Creek Wild Area	1,773	718
Sullivan	Kettle Creek Gorge Natural Area	756	306

Figure 2.2-1—BBNPP Land Use within the Owner Controlled Area
BBNPP Project Boundary

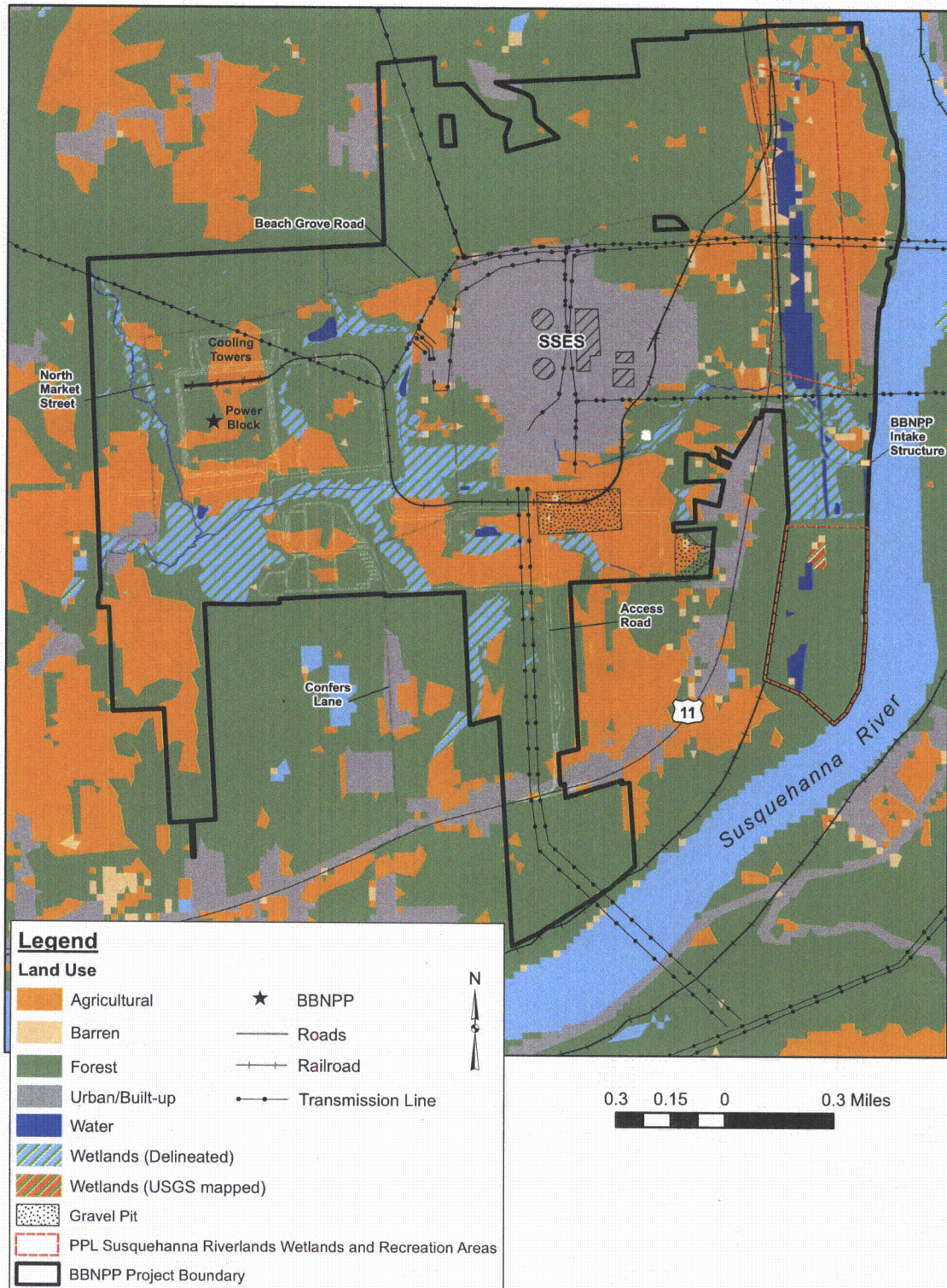


Figure 2.2-2— BBNPP 6 mi (10 km) Land Use

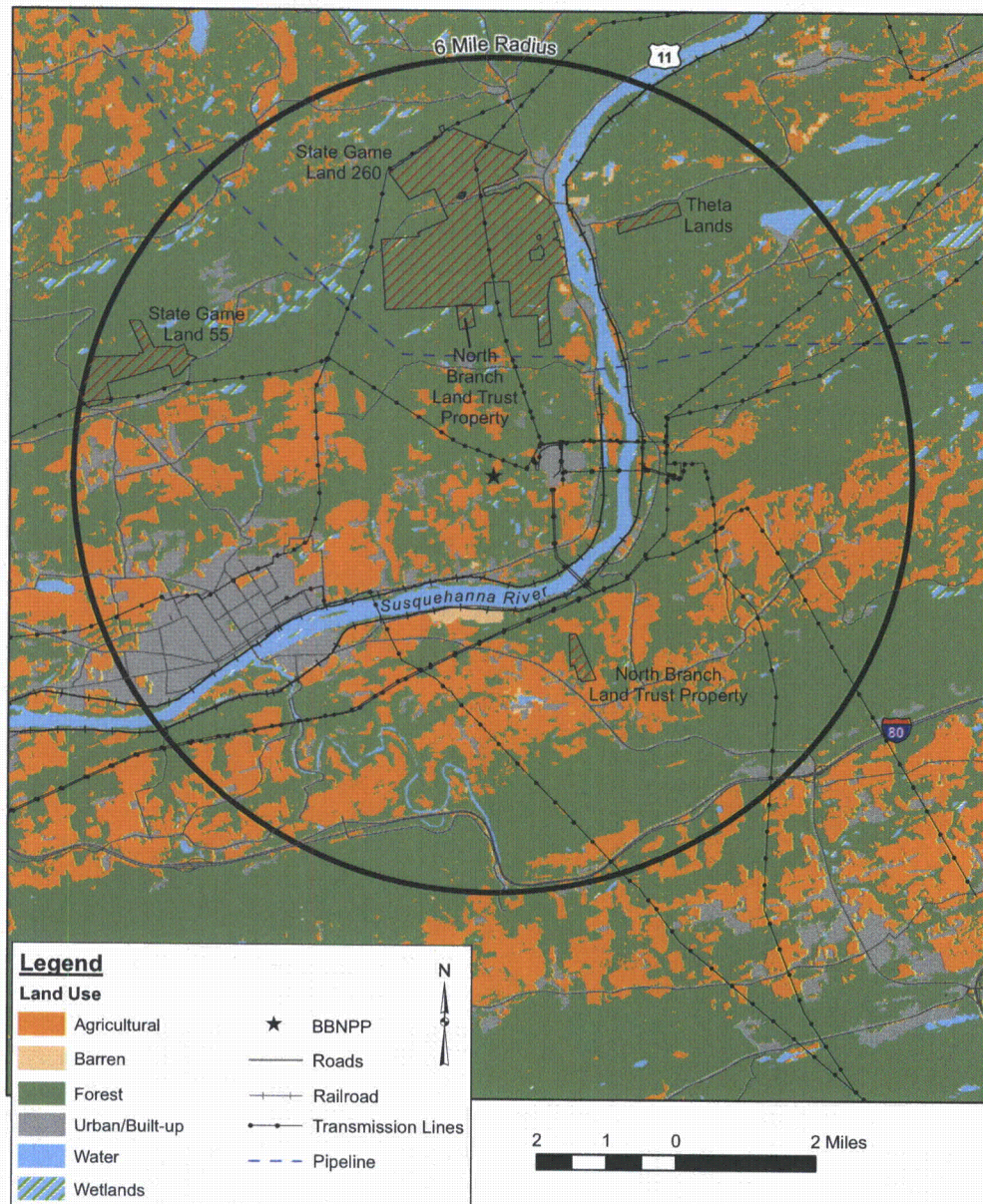


Figure 2.2-3— BBNPP Site Topographic Map



Figure 2.2-4— BBNPP Site Zoning Map

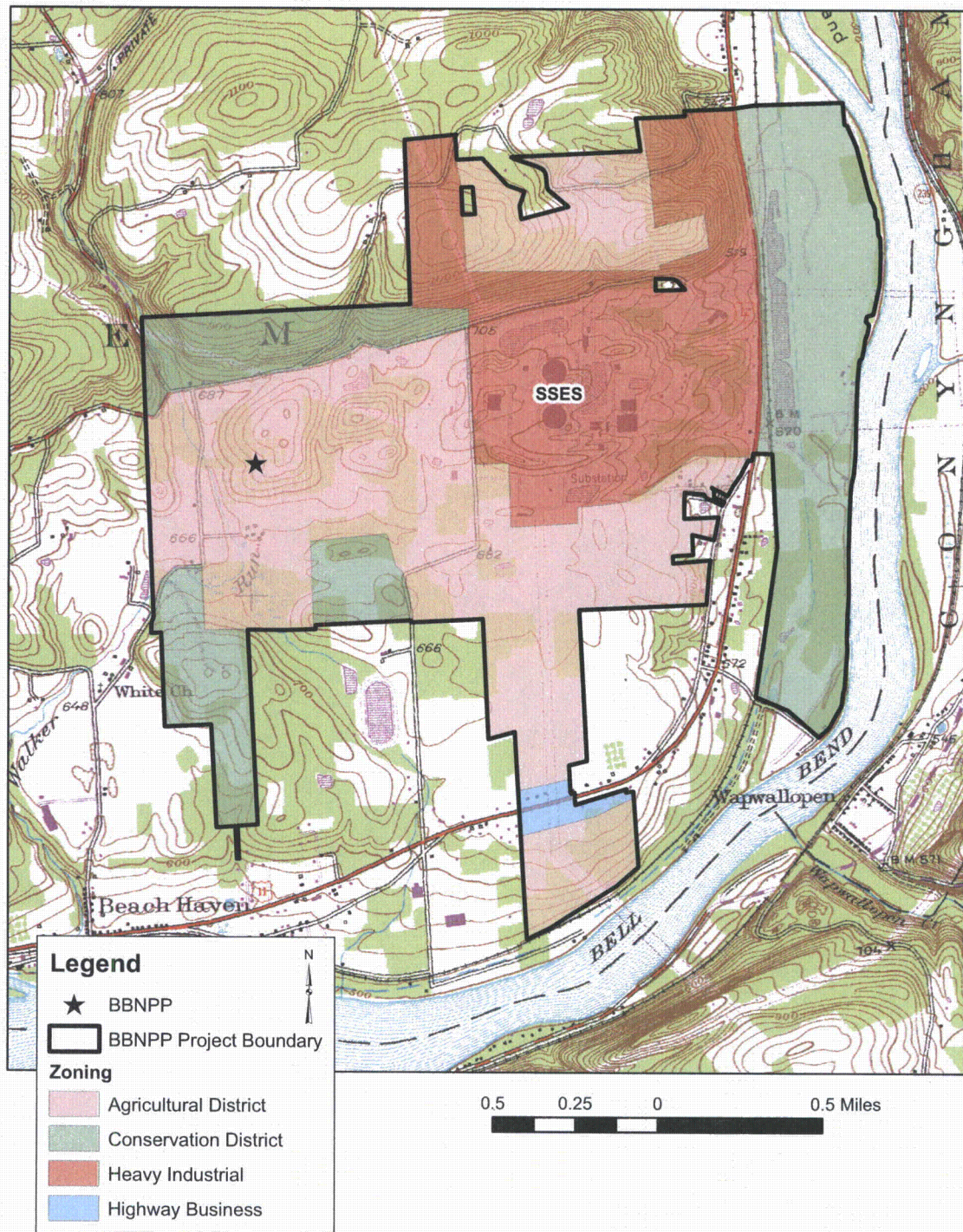


Figure 2.2-5— BBNPP Site 500 kV and 230 kV Regional Circuit Corridors

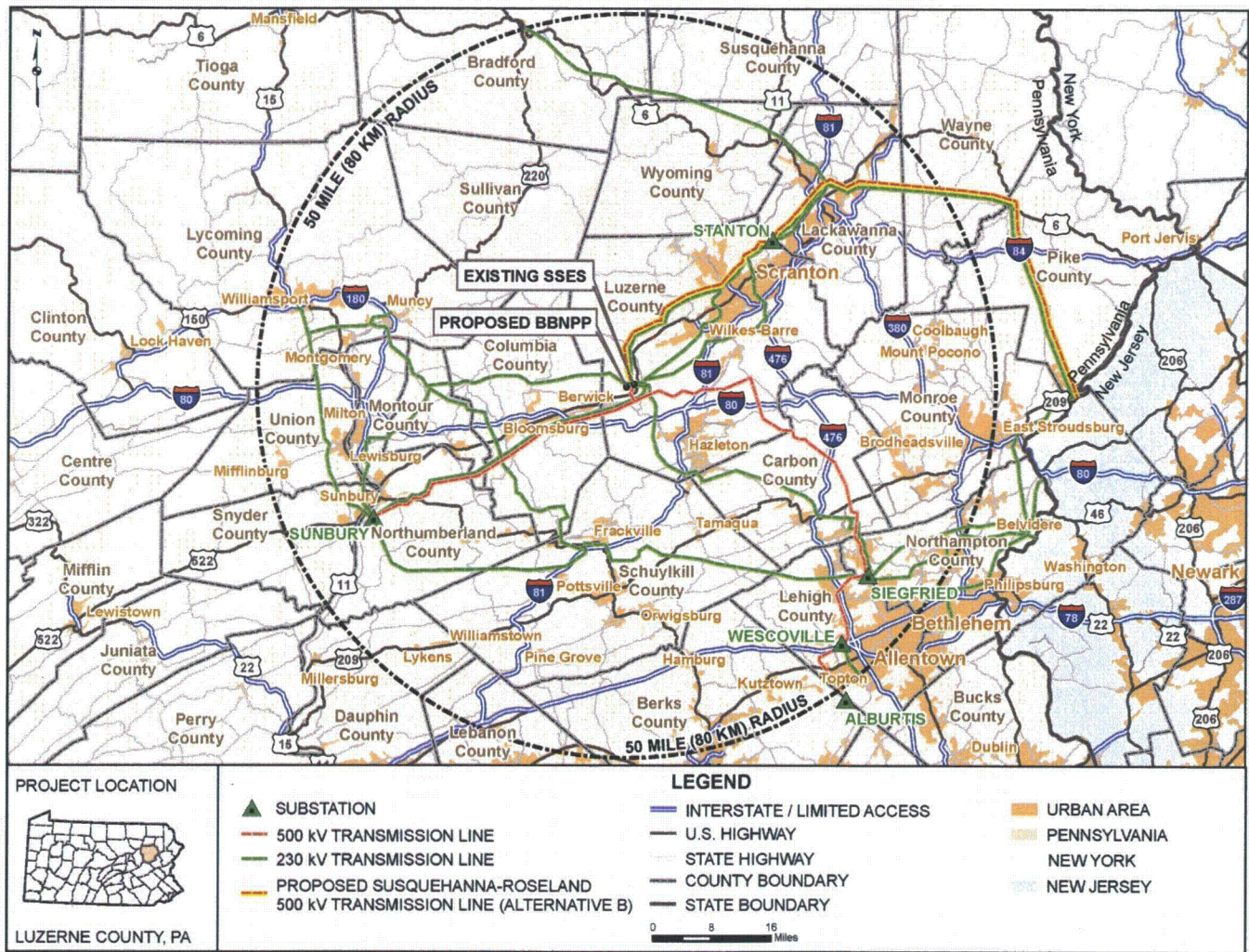


Figure 2.2-6— BBNPP Land Use within a 50 mi (80 km) Radius

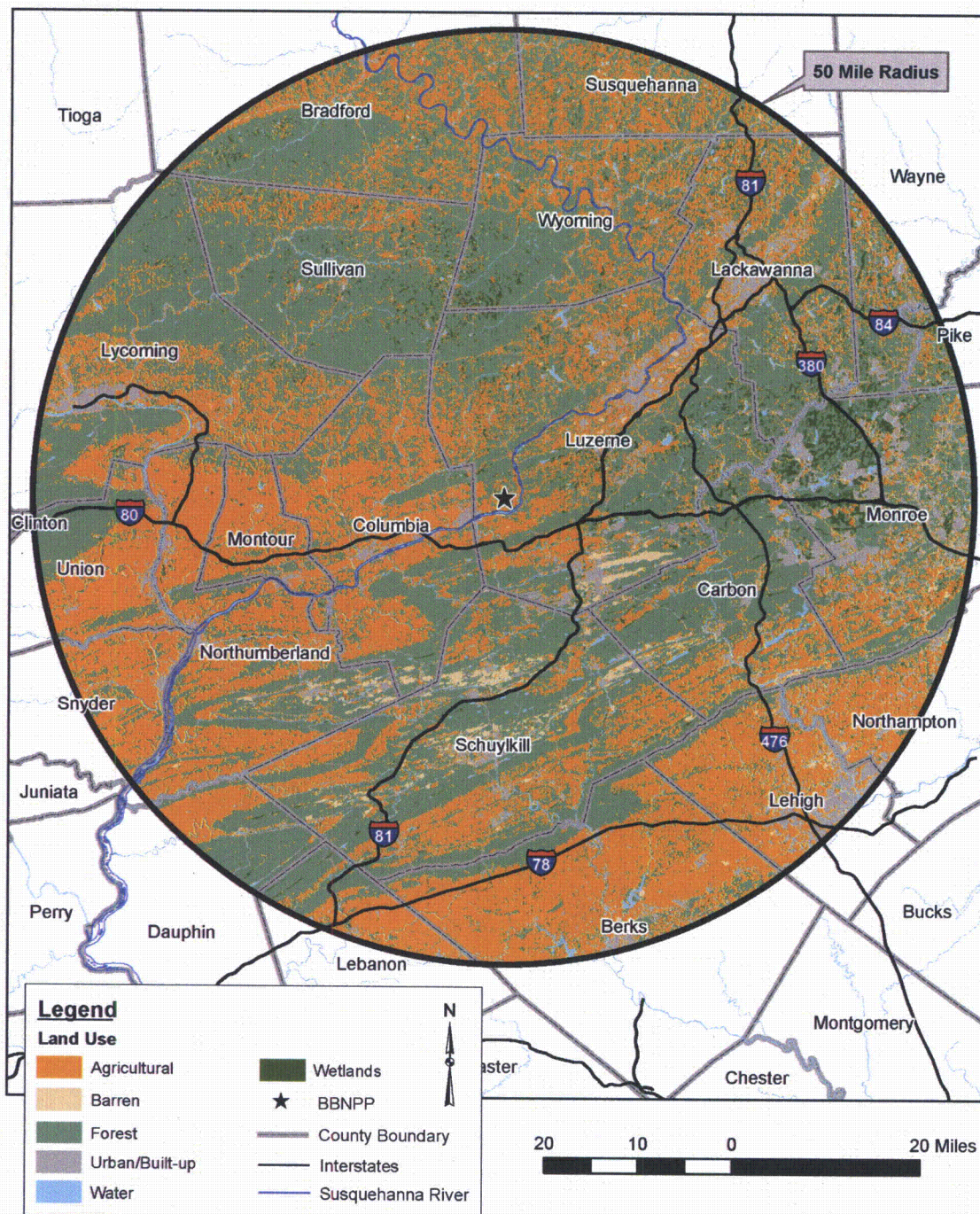
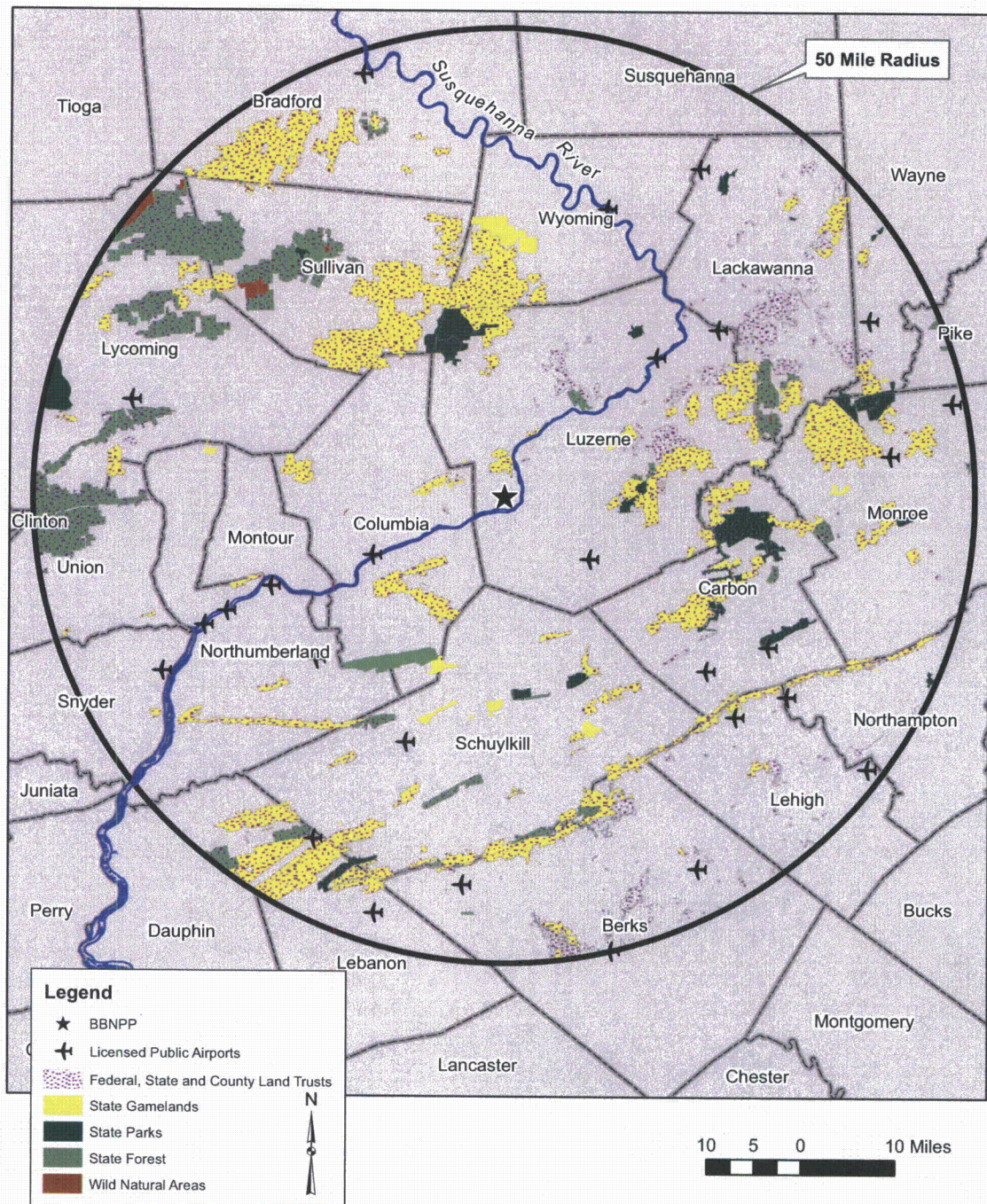


Figure 2.2-7— BBNPP Major Public and Trust Land in 50 mile (80 km) Region

Enclosure 2

Response to Requests for Additional Information
LU 3.7-1 and TE 4.3-2 (Partial Response)

RAI LU 3.7-1**ESRP 4.1**

Summary: Provide information on changes in land use from construction and provide a revision of Table 2.2-1 that includes this information.

Full Text: The applicant stated that they would provide information on changes in land use from construction. Applicant stated that they would revise Table 2.2-1 to add a column with land use change information.

Response:

Table 2.2-1 was revised to incorporate land use changes from construction and is inserted below.

Land Use Categories within BBNPP/SSES Site Boundary: Pre- and Post-Construction

Land Use Category	Pre-Construction			Post-Construction		
	Acres	Hectares	Percent of Total	Acres	Hectares	Percent of Total
Urban or Built-up	213.4	86.4	10.7	880.9	356.5	44.2
Barren	21.0	8.5	1.1	18.1	7.3	<1
Wetlands	158.6	64.2	7.9	156.8	63.5	7.9
Water	44.3	17.9	2.2	44	17.8	2.2
Forest	1114.6	451.1	56.0	684.6	277.0	34.4
Agricultural	439.1	177.7	22.1	206.6	83.6	10.4
Total	1991.0	805.7	100	1991.0	805.7	100

COLA Impact

BBNPP COLA ER Table 2.2-1 will be revised as follows in a future revision of the COLA:

Table 2.2-1 – Land Use on the BBNPP Site			
Land Use Category	Acres	Hectares	Percent of Total
Urban or Built-up	21.0	8.5	2.4
Barren	63	2.5	0.7
Wetlands	196.0	79.3	22.2
Water	4.3	1.7	0.5
Forest	402.5	162.9	45.6
Agricultural	251.9	102.0	28.6
Total	882.0	357.0	100

Table 2.2-1 - Land Use Categories within BBNPP/SES Site Boundary: Pre- and Post-
Construction

<u>Land Use Category</u>	<u>Pre-Construction</u>			<u>Post-Construction</u>		
	<u>Acres</u>	<u>Hectares</u>	<u>Percent of Total</u>	<u>Acres</u>	<u>Hectares</u>	<u>Percent of Total</u>
<u>Urban or Built-up</u>	<u>213.4</u>	<u>86.4</u>	<u>10.7</u>	<u>880.9</u>	<u>356.6</u>	<u>44.2</u>
<u>Barren</u>	<u>21.0</u>	<u>8.5</u>	<u>1.1</u>	<u>18.1</u>	<u>7.3</u>	<u><1</u>
<u>Wetlands</u>	<u>158.6</u>	<u>64.2</u>	<u>7.9</u>	<u>156.8</u>	<u>63.5</u>	<u>7.9</u>
<u>Water</u>	<u>44.3</u>	<u>17.9</u>	<u>2.2</u>	<u>44</u>	<u>17.8</u>	<u>2.2</u>
<u>Forest</u>	<u>1114.6</u>	<u>451.1</u>	<u>56.0</u>	<u>684.6</u>	<u>277.0</u>	<u>34.4</u>
<u>Agricultural</u>	<u>439.1</u>	<u>177.7</u>	<u>22.1</u>	<u>206.6</u>	<u>83.6</u>	<u>10.4</u>
<u>Total</u>	<u>1991.0</u>	<u>805.7</u>	<u>100</u>	<u>1991.0</u>	<u>805.7</u>	<u>100</u>

RAI TE 4.3-2 (Partial Response)**ESRP 4.3.1**

Summary: *Provide a table of pre-construction acreages for developed and undeveloped terrestrial and wetland habitats and all post-construction acreage conversions.*

Full Text: Provide both pre- and post-construction terrestrial and wetland habitat acreages in terms of upland forest, upland scrub/shrub, old field/former agriculture, agricultural, palustrine forested wetlands, palustrine scrub/shrub wetlands, and palustrine emergent wetlands. Include acreages for water bodies, developed areas, and for the areas defined as the Susquehanna Riverlands Environmental Preserve (SREP) and Wetlands Natural Area. Tabulate acreage conversions in terms of the habitat types and important areas described in the ER and above. For example, it is expected that a number of acres of upland forest would be converted to shrub/scrub habitat as a consequence of transmission corridor construction. Other construction features would result in the permanent conversion of this habitat to industrial, and still other temporary features might result in other conversions. This accounting will facilitate the evaluation of impacts to terrestrial and wetland habitats described within the OCA, SREP and the Wetlands Natural Area and will describe post-construction habitat acreages.

Table 2.2-1 presents generalized categories of land use acreages (clumped forest and wetland types).

Response:

This response only addresses the portion of the RAI that refers to Table 2.2-1. The balance of this response is associated with ER Section 4.3 and will be addressed in a separate submittal.

ER Table 2.2-1 was revised to incorporate land use changes from construction. See response to RAI LU 3.7-1 (this letter).

COLA Impact:

BBNPP COLA ER Table 2.2-1 will be revised as shown in the response to RAI LU 3.7-1 (this letter).