

## Site Audit Trip Report

Project Reviewer Member Name: Patrick Balducci \_\_\_\_\_  
 Technical Discipline(s): Socioeconomics and Benefit-Cost \_\_\_\_\_  
 ESP/COL Application: Bell Bend \_\_\_\_\_  
 Name of Site Visited: Bell Bend \_\_\_\_\_  
 Date of Visit: April 28-30, 2009 \_\_\_\_\_  
 Project Number: \_\_\_\_\_

**Table 1.** Site Specific Factors Needing Observation/Information Collection (Trip Objectives-information needs)

Trip Objective	Information to collect or observe	Objective achieved
Information needs.	Discuss socioeconomics and benefit-cost information needs with applicant's consultants.	Partial/RAI needed  Applicant's consultants provided useful answers but during our meeting, several additional information needs were identified. The applicant's consultants clarified information when possible but in many cases, additional analysis and reporting are required. Outstanding data needs are highlighted in Table 4.
Local political and socioeconomic issues.	Discuss local economic, housing, transportation, population, and other relevant issues with agency staff and elected officials.	Yes  These issues were discussed with local elected officials, planners, and others with relevant authority, and the results of these interviews are summarized in Table 3.

**Table 2.** Activities (Provide a chronological summary of relevant activities – excluding consultations – during the visit to this site)

Date/Time	Event Description/Log
4/28, 8:15-9:00am.	Opening meeting, introductions, and PPL presentation.
4/28, Tues, 9am-4:30pm	Attendees of this meeting were: Dan Mussati (NRC), Nancy Evans (PPL), Rau (Seshagiri) Tammara (NRC), Wayne Massie (UNE Licensing),

	<p>Gregory Poremba (ERM), and Patrick Balducci (PNNL).</p> <p>Met with applicant and its contractors to discuss socioeconomic information needs. Areas addressed during the meeting and outstanding information needs are highlighted in Table 4.</p>
4/30, Thurs, 7:30am-8:30am	<p>Attendees of this meeting were: Dan Mussati (NRC), Leah Spradley (NRC), Wayne Masse (UNE Licensing), Gregory Poremba (ERM), Patrick Balducci (PNNL), Fred Eisenhuth (PPL), Rick Williamson (Areva), Paul Jacobson (Alion), Kelli Voelsing (Areva), George Kuczynski (PPL), and Cheryl Baker (CH2M Hill).</p> <p>Met with applicant and its contractors to discuss benefit-cost information needs. Areas addressed during the meeting and outstanding information needs are highlighted in Table 4.</p>

**Table 3.** Consultation Summary (Provide a summary of any offsite meetings held during the visit to this site)

Date/ Time	Consultation Meeting	Attendees and their contact information	Meeting Summary
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<p>4/29, 8:30am – 9:30am</p>	<p>Columbia County Office of Planning</p>	<p>Robert Aungst (Director), Columbia County Planning Commission – 570-389-9146</p> <p>Rachel Swartwood (Land Use Planner), Columbia County Planning Commission – 570-389- 9146</p> <p>Dan Mussati (Senior Environmental Economist), NRC – 301- 415-2394</p> <p>Rau (Seshagiri) Tammara (Physical Scientist), Nuclear Regulatory Commission – 301-415- 2734</p> <p>Patrick Balducci (Senior Economist), PNNL – 503- 417-7541.</p>	<p>Met with Columbia County Office of Planning (CCOP) representatives to discuss land-use, transportation, and economic issues associated with proposed Bell Bend Nuclear Power Plant (BBNPP). CCOP representatives indicated there were 33 municipalities in the county and 20 fell under the office’s jurisdiction. They noted that the office receive 150 to 200 development applications each year. CCOP representatives provided a brief overview of the transportation planning process and pointed NRC to the county’s long-range transportation plan. They noted that the most significant economic development activity currently occurring within the county is the gas well drilling taking place in the northern part of the county. Though the gas well drilling process requires ample supplies of water, much of which may be trucked on- site, these heavy trucks were not thought to likely impact trucks traveling to the BBNPP site during construction. CCOP representatives noted that the Columbia County Landlord Association was a good source for obtaining information relating on housing vacancies.</p>
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<p>4/29, 10am – 10:55am</p>	<p>Borough of Berwick</p>	<p>Shane Pepe (Borough Manager), Borough of Berwick – 570-752-2723</p> <p>Frank Brennan (Chief of Police), Berwick Police Department – 570-752- 3677</p> <p>Gary Pinterich (Council President and Police Committee Chairman), Borough of Berwick - 570.752.9264</p> <p>Jim Morris (Emergency Management Director), Borough of Berwick - 570.752.2937</p> <p>Dan Mussati (Senior Environmental Economist), NRC – 301- 415-2394</p> <p>Rau (Seshagiri) Tammara (Physical Scientist), Nuclear Regulatory Commission – 301-415- 2734</p> <p>Patrick Balducci (Senior Economist), PNNL – 503- 417-7541.</p>	<p>Met with agency staff and elected officials of the Borough of Berwick, Pennsylvania. Topics of discussion included local community demographics, public facilities, tax base, and emergency preparedness. Berwick officials noted that the borough had an overall budget of \$3.8 million and that the largest expenditure categories included police and public works. They noted that Berwick is a blue collar town with a heavy reliance on manufacturing jobs. They also noted that due to recent plant closures, the borough has lost 500 manufacturing positions in the past six months. Thus, if the BBNPP went to construction today, there would be local unemployed laborers applying for jobs on the construction workforce. Borough officials indicated that Route 11 and some other local interchanges would likely require mitigation measures to accommodate the heavy truck and workforce traffic during BBNPP construction. In their view, traffic could slow to gridlock during construction workforce shift changes at the BBNPP. The borough’s Chief of Police indicated that the Berwick Police Force is currently working at capacity, and it would be difficult to accommodate any additional activity generated by the construction workforce. Further, he noted that the shortfall is tied to money, assets, and labor. The Borough’s Emergency Management Director indicated that Berwick had a solid emergency management plan but limited equipment to implement the plan. He noted that there are eight jurisdictions that collectively receive \$15,000 annually from PPL, with Berwick’s share totaling \$1,500. Presently, the Borough has only two radios to communicate with during an incident. There are 11 traffic control points with auxiliary police without any sort of communication equipment. If an incident were to occur, the Emergency Management Director indicated the lack of available equipment could become a significant problem.</p>
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<p>4/29, 11:15am – 12pm</p>	<p>Berwick Hospital Center</p>	<p>Diane Krolikowski (Asst. CEO), Berwick Hospital Center – 570-759-5464</p> <p>Michael Supczenski (Asst. Administrator), Berwick Hospital Center – 570-759-5464.</p> <p>Dan Mussati (Senior Environmental Economist), NRC – 301-415-2394</p> <p>Rau (Seshagiri) Tammara (Physical Scientist), Nuclear Regulatory Commission – 301-415-2734</p> <p>Patrick Balducci (Senior Economist), PNNL – 503-417-7541.</p>	<p>Met with representatives of the Berwick Hospital Center to discuss the hospital's operations, capacity, percentage of use, and the service it provides to the local community. The representatives indicated that the hospital was a 101-bed facility and included outpatient and inpatient surgical services and a 24-hour emergency department. It also operates a 240-bed nursing home. The representatives noted that the hospital was currently operating at 50 percent capacity and could easily accommodate the demands placed upon it by the BBNPP construction workforce. They also noted that the hospital was a first responder site where contaminated workers would be directed in the event of an incident at the BBNPP. They noted there was an emergency response plan in place, and that part of that plan includes converting emergency room space into a decontamination unit. Finally, they noted that the proximity to the existing Susquehanna plant does not appear to be resulting in a higher incidence of cancer for area residents.</p>
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<p>4/29, 1pm – 1:30pm</p>	<p>Columbia County Housing and Redevelopment Authority</p>	<p>James Thomas (Executive Director), Columbia County Housing Authority – 570-784-9373</p> <p>Rich Kisner (Executive Director), Columbia County Redevelopment Authority – 570-784-9373</p> <p>Dan Mussati (Senior Environmental Economist), NRC – 301- 415-2394</p> <p>Rau (Seshagiri) Tammara (Physical Scientist), Nuclear Regulatory Commission – 301-415- 2734</p> <p>Patrick Balducci (Senior Economist), PNNL – 503- 417-7541.</p>	<p>Met with representatives of the Columbia Housing and Redevelopment Authority to discuss the availability of local housing, local economic conditions, and the presence and location of disadvantaged populations. The representatives indicated that the authority had programs to assist low-income families and first-time home buyers. The authority also operates a 50-unit elderly housing facility in Berwick. The authority is currently providing assistance to 413 families but there are 250 on its waiting list. Families on the waiting list can expect a 1.5 to 2-year wait for assistance. They indicated that given the current economic climate, the waiting list was expected to expand in the coming months. The representatives indicated that a countywide housing needs analysis was performed and one of its findings was that 5,000 low-income housing units would be needed to serve all those who need public housing assistance in Columbia County. Authority representatives were not aware of distinctive communities (e.g., Native American, Amish) within the county but noted that while the vast majority of the area’s population was white, there was a growing Latino population in the area, particularly in the Hazelton area. Authority representatives identified two non- government shelters in Bloomsburg and Berwick: The Gate House, a transitional housing shelter, and another shelter for victims of domestic violence. They noted that Columbia County Human Services and Salvation Army run area food banks. Finally, they noted that PPL had provided grants for local housing.</p>
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<p>4/29, 2pm – 3pm</p>	<p>Berwick Industrial Development Association</p>	<p>Steve Phillips (Exec. Director), Berwick Industrial Development Association – 570-752-3612.</p> <p>Dan Mussati (Senior Environmental Economist), NRC – 301-415-2394</p> <p>Rau (Seshagiri) Tammara (Physical Scientist), Nuclear Regulatory Commission – 301-415-2734</p> <p>Patrick Balducci (Senior Economist), PNNL – 503-417-7541.</p>	<p>Met with the Executive Director of the Berwick Industrial Development Authority to discuss trends in the local economy, major industries operating in or near Berwick, and the presence of an idle local labor force capable of joining the BBNPP construction workforce. The director noted that historically, the local area has boasted a strong labor force but that in recent years, the area has experienced a decline in manufacturing positions, and more job losses are expected in the coming years. He also noted that due to its historical reliance on industrial jobs, the transition towards more technology oriented jobs has been slow within the area. The local workforce has a strong work ethic but the skill set might not be sufficient to fill many of the more technical positions called for during the construction and operation of the BBNPP. He noted that during the construction of the power plants at the Susquehanna site, the area was able to accommodate the needs of the construction workforce. In some cases, homes were converted to apartments or duplexes. Area campgrounds and mobile home parks were full during construction at the Susquehanna site. He indicated that there are plans to one day build a local industrial park and there are 90 acres that have been identified for that use. He also noted that cheap power is essential to the local industrial/manufacturing-based economy. To the extent that expanding the supply of electricity at the BBNPP could aid in reducing future electricity prices, he believed the project would have a positive economic impact on the area.</p>
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<p>4/29, 4:30pm – 5:30pm</p>	<p>Columbia / Montour Chamber of Commerce</p>	<p>Ed Edwards (President), Columbia Montour Chamber of Commerce – 570-784-2522</p> <p>Dan Mussati (Senior Environmental Economist), NRC – 301- 415-2394</p> <p>Rau (Seshagiri) Tammara (Physical Scientist), Nuclear Regulatory Commission – 301-415- 2734</p> <p>Patrick Balducci (Senior Economist), PNNL – 503- 417-7541.</p>	<p>Met with the President of the Columbia / Montour Chamber of Commerce to discuss the state of the local economy, the adaptability of the local workforce, presence of new industries or companies planning to move into Berwick, and other issues that might impact construction at the BBNPP site. He indicated that the latest significant economic opportunity within the region involved gas exploration in North Columbia County. He also indicated that another significant issue the chamber was involved in was stopping the potential tolling of Interstate 80. He noted that tolling would have a significant negative impact on the area economy. He identified and discussed several of the most significant local employers, including University of Bloomsburg, Del Monte pet foods, and Bloomsburg carpet industries. He described layoffs at some of the local plants and noted that there appeared to be a gradual erosion of manufacturing employment in the region. He indicated that at its peak, Berwick was home to 25,000 people but that there are only approximately 10,000 residents today. Finally, he indicated that what attracts companies to the area is the local workforce, which he described as being multi-talented and having a strong work ethic.</p>
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4/30, 9am – 10am	Luzerne County Emergency Management	<p>Stephen Bekanich (EMA Coordinator), Luzerne County EMA – 570-820-4400</p> <p>Lucille Lake (Deputy EMA Coordinator), Luzerne County EMA – 570-820-4400</p> <p>Dan Mussati (Senior Environmental Economist), NRC – 301-415-2394</p> <p>Leah Spradley (Environmental Engineer), Nuclear Regulatory Commission – 301-415-6043</p> <p>Patrick Balducci (Senior Economist), PNNL – 503-417-7541.</p>	<p>Meeting to discuss Luzerne County Emergency Management Agency's (EMA) role in coordinating emergency responses to incidents at the current Susquehanna Nuclear Power Plant site and planned Bell Bend Nuclear Power Plant (BBNPP) site. Luzerne County EMA indicated that the agency was responsible for coordinating off-site emergency response for the Susquehanna site and that it works closely with 19 local municipalities, 15 of which are located in Luzerne County and 7 which are in Columbia County, and PPL. Luzerne County EMA presented an overview of its Emergency Management Plan, with particular emphasis on the annex dedicated to managing nuclear incidents at the existing Susquehanna site. Luzerne County EMA noted that PPL provides funding to cover administrative expenses while county general funds and state grants are used to fund equipment purchases and salaries. They indicated that emergency response drills involving nuclear incidents are carried out annually and that no deficiencies were found at the most recent drills. Luzerne County EMA also noted that it keeps a list of special needs individuals (e.g., elderly, disabled, low-income) who will require public transportation in the event of an incident at the existing Susquehanna site, and that contact information, along with a notification system that includes 75 sirens posted throughout the region, would be used to notify these special needs groups. Because the proposed BBNPP site would be located adjacent to the existing Susquehanna site, Luzerne County EMA does not envision any significant issues with addressing the additional emergency management requirements associated with BBNPP. They estimated that the EPZ would be adjusted minimally, possibly adding one municipality in Columbia County. They offered to provide a copy of the Emergency Plan for the Commonwealth of PA, referred to as 'Annex E', in a future correspondence by e-mail.</p>
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<p>4/30, 11am – 12pm</p>	<p>Luzerne County Planning</p>	<p>Adrian Merolli (Executive Director), Luzerne County Planning Commission – 570-825-1560.</p> <p>Nancy Snee (NPO Coordinator / Farmland Preservation Program Administrator), Luzerne County Planning Commission – 570-825-1560.</p> <p>Martin J. Marchaterre (Senior Environmental Planner), Amec Earth and Environmental – 859-338-6800 ext. 1002</p> <p>Dan Mussati (Senior Environmental Economist), NRC – 301-415-2394</p> <p>Leah Spradley (Environmental Engineer), Nuclear Regulatory Commission – 301-415-6043</p> <p>Patrick Balducci (Senior Economist), PNNL – 503-417-7541.</p>	<p>Met with Luzerne County Planning to discuss transportation, economic, and zoning/permitting requirements of the BBNPP. Luzerne County Planning (LCP) noted that Salem Township has jurisdiction over the zoning and permitting requirements associated with the plant and that the BBNPP site would need to be rezoned from prime agricultural to heavy industrial use. LCP pointed out that Section 619 of their regulations allows for an exemption shifting the jurisdiction of land-use planning from the Salem Township municipality to the County in certain cases. LCP indicated that transportation issues would pose serious challenges during the construction phase of the project. More specifically, numerous intersections along Route 11 could become significantly congested during the AM and PM peak periods due to the construction workforce during shift changes. As evidence to support this conclusion, LCP noted that during shift changes involving the outage workforce, traffic back-ups could be several miles in length near Berwick. LCP also noted that the trucks delivering materials during construction would be too large to safely make the turn from Route 11 off Route 93, and that these vehicles may need to be diverted down Route 29 to Danico before turning left onto Route 11. Further, there is no light at the intersection of Route 29 and Route 11 but one may be required to accommodate more heavy trucks. LCP indicated that there is a relatively small supply of housing to the north of the BBNPP site, so most transient housing needs would likely be met at sites developed in Columbia County to the south of the site. However, if in-migrant housing is located to the south of the BBNPP, commuting traffic would flow through the Route 11 bottlenecks in Berwick, Pennsylvania. There are also several stone arched bridges along Route 11 that might not have the strength to accommodate the influx of heavy truck traffic during the construction phase of the project. These stone bridges could potentially be of historical importance. LCP did not recall any covered bridges along Route 11, but did mention that some power lines in Schickshinny may need to be raised to accommodate high trucks. LCP indicated</p>
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<p>4/20, 12:15am – 12:45am</p>	<p>Luzerne County Commission on Economic Opportunity</p>	<p>Gene Brady (Executive Director), Commission on Economic Opportunity – 570-826-0510</p> <p>Kathy O’Neil (Director of Planning), Commission on Economic Opportunity – 570-826-0510.</p> <p>Dan Mussati (Senior Environmental Economist), NRC – 301-415-2394</p> <p>Leah Spradley (Environmental Engineer), Nuclear Regulatory Commission – 301-415-6043</p> <p>Patrick Balducci (Senior Economist), PNNL – 503-417-7541.</p>	<p>Met with Luzerne County Commission on Economic Development (CED) to discuss environmental justice issues associated with low-income, minority, and distinctive populations located near the BBNPP site. CED representatives noted that the agency works with low-income and otherwise disadvantaged populations on employment, energy, nutrition, and housing issues. CED noted that there have been some recent plant closings, and that the slowing economy has contributed to a 30 percent increase in demand for its services. CED stressed the importance of the BBNP hiring locally when possible to aid in reducing the unemployment rate. CED noted that low-cost housing is available in the Berwick, Nescopec, and Nanocote area due to the slumping economy and recent population declines. CED indicated that 15.3 percent of the area’s population falls below the poverty line, and that low-income populations are distributed throughout the region. CED also indicated that the local Hispanic population has grown in an accelerated manner in recent years, with particularly strong growth in the Hazelton area. CED stated its desire for PPL to invest in renewable energy along with the BBNPP project.</p>
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4/20, 2pm – 3pm	Berwick Area School District	<p>Wayne Brookhart (Superintendent), Berwick Area School District - 570-759-6400</p> <p>Dan Mussati (Senior Environmental Economist), NRC – 301- 415-2394</p> <p>Patrick Balducci (Senior Economist), PNNL – 503- 417-7541.</p>	<p>Met with Berwick Area School District to discuss District facilities, capacity to absorb additional students, and presence of low-income families within the area. The District noted that its annual budget is approximately \$41 million, with \$2.1 million (5 percent) tied to real estate taxes paid by PPL for the Susquehanna Power Plant. The District noted that although there exists additional capacity to absorb new students, most of its buildings are aging, with three elementary school buildings – Orange, Nescopee, and 14<sup>th</sup> Street – built prior to 1935. These elementary school buildings are in need of upgrades or replacement. If there is no influx of students, the District may consider closing one elementary school in the near future. If there was an influx of students associated with the BBNPP construction, the District would receive more real estate taxes and state funding because its apportionment is in-part based on enrollment. The District’s current student to teacher ratio stands at 20-1, which falls below the state recommendation of no more than 25-1. The District noted that enrollment is presently 3,600 students, with approximately 400 enrolled in private, charter, or the local vocational-technical school. The District also noted that it has experienced an increase in the percentage of its enrolled students participating in reduced price lunches. Today, 41-42 percent of enrolled students qualify for free and reduced price lunches.</p>
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<p>4/30, 4:30pm – 5:30pm</p>	<p>Salem Township Board of Supervisors</p>	<p>Stephen Fraind (Chairman), Salem Township Board of Supervisors - 570-784- 9373</p> <p>Dan Mussati (Senior Environmental Economist), NRC – 301- 415-2394</p> <p>Patrick Balducci (Senior Economist), PNNL – 503- 417-7541.</p>	<p>Met with the Chairman of the Salem Township Board of Supervisors to gain a better understanding of the local community, relevant permitting/zoning requirements, public facilities, and tax base, with particular emphasis on the real estate tax paid by PPL. The Chairman noted that the township's major source of revenue was the local real estate tax and major expenditure items included roads, police, administrative offices, equipping of the volunteer firefighting force, and a local sewage project. He indicated that permitting was the responsibility of the township and that the BBNPP would require a re-zoning of the land on the BBNPP site from agricultural to heavy industrial use. He also noted that the Salem Township Board was receptive to the application, and that the BBNPP is expected to provide jobs for the region and additional real estate taxes to the township. The Chairman indicated that PPL was the largest private landowner in the township, owning nearly one-quarter of available land within its boundaries. He noted that one landowner is seeking a permit to add a 50-unit housing facility near the proposed BBNPP site. He also noted that Salem Township is a dry community, meaning no alcohol is served at any restaurants located within the township. Finally, he noted that few local residents have raised complaints regarding the citing of the proposed BBNPP. The issue most repeatedly brought to his attention relates to the storage of waste and disappointment regarding the stalled plan to move waste to the Yucca Mountain.</p>
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**Table 4.** Summary of Issues/Concerns/Pertinent Information (Highlight sensitive issues discovered or confirmed on this trip for the site/vicinity/region in relation to facility siting)

Issue	Issue Summary (if appropriate, suggest a resolution or follow-up action)
Migrant-Transient Population	Section 2.5.1.1.3.2. With respect to the impacts of BBNPP on migrant-transient populations, please extend the transient population analysis out from 10 to 50 miles.
Income Data	Section 2.5.1.1.2. Section 2.5.1.1.2 presents data for mean household income levels in Columbia and Luzerne Counties. In Chapter 4 of the ER, the mean income level presented for individuals is identified at levels that exceed the household values supplied in this section. This discrepancy should be addressed.
Area Political Structure	Section 2.5.2.2. More clarification is required in terms of how the various jurisdictions interact in the area (e.g., boroughs, townships, etc.). More information is required on how tax revenue, decision making responsibility, permitting, and other relevant elements are addressed through these competing jurisdictions.
Construction Workforce	Section 2.5.2.1.3. More detail is needed in Table 2.5-12. The number of construction workers should be broken down by relevant sub-groups, including iron workers, pipe fitters, and other trades. Also needed is the number of unemployed construction workers in the ROI and within the 50-mile radius of the BBNPP..
Housing	<p>Section 2.5.2.4. Information needs identified for this section includes:</p> <ul style="list-style-type: none"> <li>a. Average population densities on Pages 2.5-545 contradicts data presented in Table 2.5-4. This should be corrected.</li> <li>b. On Page 2-545, document indicates 308,277 existing units are located in the ROI while Table 2.5-17 identifies only 172,419. This discrepancy should be addressed.</li> <li>c. On Page 2-545, text identifies 68 apartment/townhouse complexes while Table 2.5-18 identifies 34 units.</li> <li>d. On Page 2-545, the ER identifies an additional 12 facilities in surrounding counties within the 30 miles radius but Table 2.5-19 identifies only 5 facilities.</li> <li>e. On Page 2-545, the number of hotels/motels/B&amp;Bs noted in the text does not align with values presented in Table 2.5-18.</li> <li>f. On Page 2-545, the number of apartments noted in text does not equate to those presented in Table 2.5-18.</li> </ul>
Housing	Section 2.5.2.4 Provide additional information about potential / predicted future changes in housing stocks.

Local School Districts	Section 2.5.2.5. The capacity of the local school districts should be compared to student enrollment to determine capacity utilization or percentage of use. Please compare current student to teacher ratios to statewide limits. The discussion of school districts is aggregated in the ROI. More analysis is required to address the local school districts capacity and utilization, particularly the Berwick Area School District.
Recreational Areas and Usage	Section 2.5.2.6. Recreational use values for important local sites, as well as capacity and utilization rates, are not present but needed.
Public Facilities and Services	Section 2.5.2.9. There are multiple issues with this section: <ul style="list-style-type: none"> <li>a. Please provide the capacity of local facilities and utilization rates.</li> <li>b. In Section 2.5.2.9.2.1, the statement is made that “both surface and groundwater sources in the county provide adequate supply for the population.” This statement needs to be quantified.</li> <li>c. Capacity and percentage of use with respect to water and sewer/sewage disposal facilities, police and fire capabilities are absent but needed.</li> </ul>
Environmental Justice	Section 2.5.4. The Environmental Justice section should be carried out to the 50-mile radius.
Distinctive Communities	Section 2.5.4. A section should be added to document attempts to identify distinctive communities.
Non-Governmental Organizations in Area	Section 2.5.4. Please provide NGO data– e.g., catholic churches, food bank. NGOs need to be contacted to identify low-income and minority populations.
Subsistence Activities	Section 2.5.4. More detail is needed for subsistence, particularly agricultural uses. Data should be provided for distinct minority, low income, and distinctive population to the extent feasible.
Air Impacts	Section 4.4.1. What is the attainment status for air within the 50-mile area.
Transportation Impacts	Section 4.4.1. The transportation routes are identified as sufficient to transport the construction materials. Later, the report presents the results of a study that notes that the transportation impacts are such that mitigation measures are required to accommodate the growth in traffic. Text identifying the local network as sufficient should be revised to reflect the results of the traffic study.
Transportation Impacts	Section 4.4.1. Table 4.4-2 suggests that traffic at several local interchanges will register very low levels of service (D, E, F) during BBNPP construction. The ER identifies mitigation measures that would improve the service levels but does not specify the degree to which the proposed mitigation measures would improve service levels at specific interchanges. Please add this information to the ER.
In-migration Rates for Construction Workforce	Section 4.4.2. Please use a consistent in-migration value in percentage terms.

Construction Workforce	Section 4.4.2.2 Please provide month-by-month, quarter-by-quarter workforce data. Also, please provide an estimate of the number of operations workers who would be employed during the construction period.
Indirect Workers	Section 4.4.2.3. Please identify the number of indirect workers as well as income and tax revenue tied to each indirect worker but assume that 100 percent of these indirect workers are already located within the ROI. That is, assume that none of the indirect workers would be in-migrants.
Income Data	Section 4.4.2.3. Average hourly earnings for indirect workers appears high. Please use hourly wage estimates for service-oriented industries as opposed to average salary estimates across all industries and concentrate the analysis on wages received by local income earners. Please use operations workforce multiplier for operations workforce employed during construction.
Construction Workforce Annual Salary Estimates	Section 4.4.2.3. Annual salaries are based on a 40-hour work week assumption. More likely, overtime would occur. This fact should be reflected in the average salary values. Section 2.5.1.1.2 presents data for mean household income levels in Columbia and Luzerne Counties. In Section 4.4.2.3, the mean income level presented for individuals is identified at levels that exceed the household values supplied in this section. This discrepancy should be addressed.
Housing	Section 4.4.2.4. Discuss the location, number and quality of mobile home parks in the ROI and capacity / percentage of use. Discuss how these would be impacted by construction workforce use of these homes.
Materials, Equipment, and Outside Services Expenditures	Section 4.4.2.5. Please identify annual expenditures on materials, equipment, and outside services during construction.
Tax Receipts	Section 4.4.2.6. No information was provided with respect to property tax generation at the BBNPP. This information was identified as proprietary by the applicant but NRC requires it.
Tax Receipts	Section 4.4.2.6. The ER notes that it could not make any assumptions regarding expenditures patterns (implications for sales tax calculations) and exemptions/investments/deductions (implications for income tax calculations). Thus, no estimates of sales or income tax generated by the BBNPP construction workforce were provided. NRC requests that the applicant make assumptions regarding these elements that would enable it to estimate these tax impacts. Please provide the estimate tax impacts.
Public Services	Section 4.4.2.8. This section notes that there is sufficient capacity to meet the additional demands placed upon public services by the construction workforce. Please provide data to substantiate this claim, including comparisons of demands for public services generated by the construction work force against capacity and utilization rates for police and fire services and educational facilities.



Number of Children per Household	Section 4.4.2.8. The total number of children per household is calculated by dividing the number of children in Pennsylvania by the number of households. Because the demographics of the construction workforce households would differ from statewide averages (there are retired households included in the statewide average), the number of children per household should be adjusted based on available Susquehanna work force data.
Local School Districts	Section 4.4.2.8. The impact on the local education system is identified as moderate and mitigation measures are outlined but none are listed. Please provide a list of these potential mitigation measures.
Subsistence Activities	Section 4.4.3. Please provide more data regarding the impact of BBNPP on subsistence activities. Review technical journals to identify relevant literature.
Subsistence Activities	Section 4.4.3. Please provide more discussion of the possible pathways associated with subsistence fishing activities and the impact of emissions from vehicles on minority and low-income workers.
Indirect Workers	Section 5.8.2.2 – Indirect workforce impacts on local housing should be removed as we recommend assuming that none of the indirect workers would in-migrate into the ROI.
Average Hourly Earnings for Indirect Workers	Section 5.8.2.3 - Average hourly earnings for indirect workers appears high. Please use hourly wage estimates for service-oriented industries as opposed to average salary estimates across all industries and concentrate the analysis on wages received by local income earners.
Income Data	Section 5.8.2.3 – Section 2.5.1.1.2 presents data for mean household income levels in Columbia and Luzerne Counties. In Section 5.8.2.3, the mean income level presented for individuals is identified at levels that exceed the household values supplied in this section. This discrepancy should be addressed.
Transportation Mitigation	Section 5.8.2.6 – There is a mitigation measure identified for Route 11 and Orange Street that was not discussed in the construction section. Please indicate if the mitigation measure should be added to the construction section. If it is a measure specifically designed to address the operations workforce, please describe the nature of the issue addressed by this proposed mitigation measure.
Materials, Equipment, and Outside Services Expenditures	Section 10.4.1 - Please identify annual expenditures on materials, equipment, and outside services during construction.
Tax Receipts	Section 10.4.1 - No information was provided with respect to property tax generation at the BBNPP. This information was identified as proprietary by the applicant but NRC requires it. NRC needs property tax, sales, and income taxes as well.
Construction Costs	Section 10.4.2 – NRC requires a more detailed estimate of the construction costs and the cost of supplying the power (\$/MW). Further, the estimated cost must include more detailed cost categories (e.g., power block, turbine buildings, and any element used in electricity generation). These should be overnight costs, not including interest expense. Do not include transmission lines.

Construction-Related Traffic	KDL studied traffic issues resulting from the construction workforce at the BBNPP site and concluded that the current road system was not capable of handling the construction volume, and during shift changes several interchanges on Route 11 would reach levels of service of D, E, or F.
Police Capacity	The Berwick Chief of Police indicated that the Berwick Police Force is currently working at full capacity, and it would be difficult to accommodate any additional activity generated by the construction workforce. Further, he noted that the shortfall is tied to money, assets, and labor.
Heavy Truck Traffic During Construction	LCP noted that trucks delivering materials during construction would be too large to safely make the turn from Route 11 off Route 93, and that these vehicles may need to be diverted down Route 29 to Danico before turning left onto Route 11. Further, there is no light at the intersection of Route 29 and Route 11 but one may be required to accommodate more heavy trucks.
Heavy Truck Traffic During Construction	LCP noted there are also several stone arched bridges along Route 11 that might not have the strength to accommodate the influx of heavy truck traffic during the construction phase of the project. These stone bridges could potentially be of historical importance.
Heavy Truck Traffic During Construction	LCP noted that some power lines in Schickshinny may need to be raised to accommodate high trucks during BBNPP construction.
Local School Capacity	The Superintendent of the Berwick Area School District noted that although there exists additional capacity to absorb new students, most of its buildings are aging, with three elementary school buildings – Orange, Nescopec, and 14th Street – built prior to 1935. These elementary school buildings are in need of upgrades or replacement. If there is no influx of students, the District may consider closing one elementary school in the near future.
Zoning Requirements	Permitting and zoning are the responsibility of Salem Township, and the BBNPP site will need to be re-zoned from agricultural to heavy industrial use.