

Enclosure 2

Management Summary of Assessment of
Effects to NRHP-Eligible Historic Resources
141673, 155049, 155052, 155053, 155054, 155055, 155064, 155065, and 155070
Bell Bend Nuclear Power Plant
Luzerne County Pennsylvania

February 2, 2010
Project C090846.00

Mr. Stephen Geier, PE
VP, New Nuclear Projects
UniStar Nuclear Development, LLC
750 East Pratt Street, 14th Floor
Baltimore, MD 21202

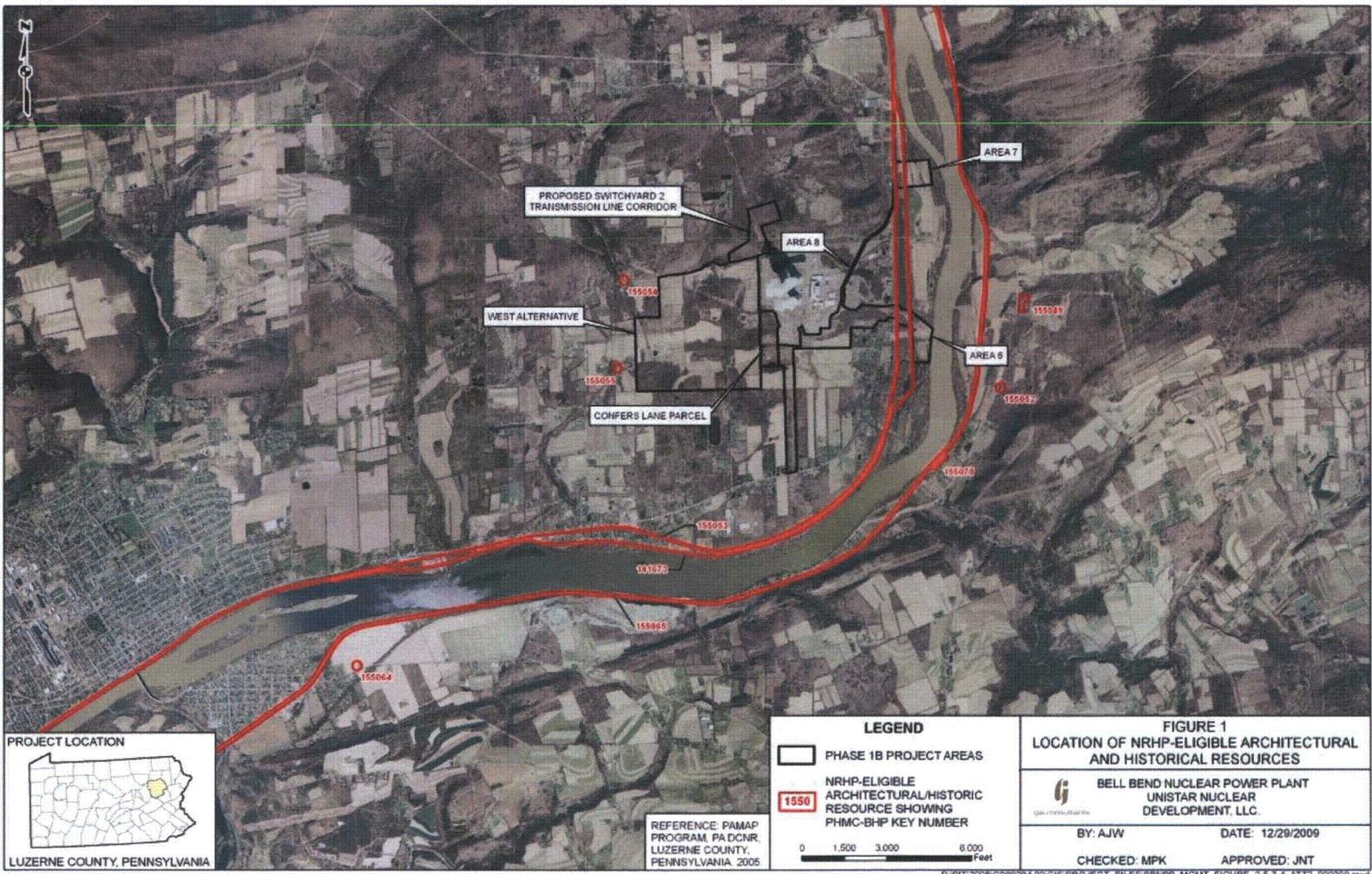
Re: Management Summary
Assessment of Effects to NRHP-Eligible Historic Resources 141673, 155049, 155052, 155053,
155054, 155055, 155064, 155065, and 155070
Bell Bend Nuclear Power Plant
Luzerne County, Pennsylvania
ER 81-0658-079

Dear Mr. Geier,

GAI Consultants, Inc. (GAI) is pleased to submit this Management Summary for Assessment of Effects of National Register of Historic Places (NRHP)-Eligible Historic Resources: North Branch Pennsylvania Canal (141673), Union Reformed and Lutheran Church (155049), Woodcrest (155052), The Bloomsburg Division of the Delaware, Lackawanna, & Western Railway (155053), Stone Arch Bridge (155054), North Market Street Bridge (155055), Red Brick Studios (155064), Pennsylvania Railroad-Sunbury Line/Delaware & Hudson Railroad (155065), and Wapwallopen Historic District (155070) at the Bell Bend Nuclear Power Plant (BBNPP), Luzerne County, Pennsylvania.

Introduction and Project Description

The nine NRHP-eligible historic resources investigated during this study lie within the Area of Potential Effect (APE) of the proposed BBNPP project, located adjacent to the PPL Corporation's existing Susquehanna Steam Electric Station (SSES), west of the North Branch Susquehanna River and northeast of the town of Berwick. GAI initially identified these resources as part of a reconnaissance level architectural and historical survey conducted in January 2008, in conjunction with GAI's Phase Ia investigations. This reconnaissance survey identified 52 architectural and historical resources within the project APE. The Pennsylvania Historic and Museum Commission-Bureau of Historic Preservation (PHMC-BHP) reviewed this document and responded in a June 5, 2008 letter requesting completion of Pennsylvania Historic Resources Survey (PHRS) forms for 22 of the surveyed resources. The subsequent Phase Ib Supplemental Architectural Survey, conducted in August 2008, resulted in the recommendation that ten (10) of these 22 resources should be considered NRHP-eligible. In a letter from GAI to the PHMC-BHP dated November 16, 2009 providing further information regarding historic resources within the project APE, the previously recommended NRHP-eligible Susquehanna and Tioga Turnpike was recommended not NRHP-eligible, based on additional research conducted in the preparation of the historic context for the forthcoming *Phase I/II Cultural Resources Survey Report*. The remaining nine NRHP-eligible historic resources include the North Branch Pennsylvania Canal (141673), the Union Reformed and Lutheran Church (155049), Woodcrest (155052), The Bloomsburg Division of the Delaware, Lackawanna, & Western Railway (155053), the Stone Arch Bridge (155054), the North Market Street Bridge (155055), Red Brick Studios (155064), Pennsylvania Railroad-Sunbury Line/Delaware & Hudson Railroad (155065), and the Wapwallopen Historic District (155070). The locations of these resources are shown in Figure 1.



In accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, the Criteria of Adverse Effect were applied to the nine recommended NRHP-eligible resources located within the project APE. This evaluation required additional fieldwork, conducted in September 2009, to carefully study the proposed project and its relationship to the identified NRHP-eligible resources, based on contextual and site-specific background information. The APE accounts for areas of physical disturbance as well as those areas subject to potential visual impacts (i.e., areas within each historic property's viewshed). Viewsheds were defined as the ability to see any of the proposed nuclear power plant buildings and power transmission structures from each historic property, based on landforms, vegetation, and terrain features. An assessment of potential visual impact was conducted by photographing the locations of the proposed nuclear power plant buildings and transmission lines from each of the nine aforementioned historic resources. Subsequent to the submittal of the forthcoming combined Phase I/II Technical Report, and upon concurrence by the PHMC-BHP, GAI will prepare and submit a Criteria of Effect Report for submittal to the PHMC-BHP under a separate cover. Preliminary results of the evaluation of the Criteria of Effect for the nine NRHP-eligible historic resources are briefly summarized below. Table 1 summarizes each of the nine NRHP-eligible historic resources.

Table 2. Summary of NRHP-Eligible Historic Resources

ID No.	Name	Location/ Address	County	Date	Historical Function	Recommendation
141673	North Branch Pennsylvania Canal	Along Susquehanna River, US Rt. 11 Vicinity, Salem Twp	Luzerne	1828	Transportation	NRHP-Eligible Criteria A and C
155049	Union Reformed and Lutheran Church	3200 SR 239, Conyngham Twp	Luzerne	1833 (church) 1805 (cemetery)	Ecclesiastic	NRHP-Eligible Criteria A, B, and C
155052	Woodcrest	3209 SR 239, Conyngham Twp	Luzerne	1805, 1822	Domestic, Agriculture	NRHP-Eligible Criteria A and C
155053	The Bloomsburg Division of the Delaware, Lackawanna, & Western Railway	Along Susquehanna River, US Rt. 11 Vicinity, Salem Twp	Luzerne	1858	Transportation	NRHP-Eligible Criterion A
155054	Stone Arch Bridge	Beach Grove Road at Stone Church Road, Salem Twp	Luzerne	c1935	Transportation	NRHP-Eligible Criterion C
155055	North Market Street Bridge	North Market Street, Salem Twp	Luzerne	c1935	Transportation	NRHP-Eligible Criterion C
155064	Red Brick Studios	1405 Berwick-Hazleton Highway (SR 93), Nescopeck Twp	Luzerne	c1880	Domestic	NRHP-Eligible Criterion C
155065	Pennsylvania Railroad-Sunbury Line/ Delaware & Hudson Railroad	Along Susquehanna River in Vicinity of River Road and SR 239, Nescopeck Twp	Luzerne	c1870	Transportation	NRHP-Eligible Criterion A
155070	Wapwallopen Historic District	454 through 480 South River Street, Wapwallopen	Luzerne	c1870- c1900	Domestic, Agriculture	NRHP Eligible Criteria A and C

North Branch Pennsylvania Canal (141673)

Today, there are only a limited number of readily-identifiable sections of this canal remaining. Along the Susquehanna River, north of Beach Haven, an intact section of the canal survives. This canal consists of a basin and towpath (the latter currently used as a vehicle trail), located on the floodplain between the existing railroad (The Bloomsburg Division of the Delaware, Lackawanna, & Western Railway) (155053) tracks and the river. There is a spillway in the vicinity of the project area that likely serves as flood control for the canal basin.

Built in 1828 as the North Branch Canal, this canal line was constructed to provide a connection between Northumberland and the New York state line. By 1858, however, the canal system was sold to the Sunbury and Erie Railroad Company. They operated a 65-mile-long section of the line from Northumberland to Wilkes-Barre. In 1869, it was sold to the Pennsylvania Canal Company, who operated it until its closure in 1901.

This section of the North Branch Pennsylvania Canal reflects a clear association with the 19th-century canal-building transportation movement throughout Pennsylvania. This section of the canal retains sufficient integrity to convey its historical associations and is therefore recommended eligible for NRHP listing under Criterion A. No information could be located that connects the canal to a significant individual in local or regional history. Therefore, this resource is recommended not eligible for NRHP listing under Criterion B. The section of canal in the project vicinity retains sufficient integrity to convey the details of canal building technology in the early 19th century in eastern Pennsylvania. Therefore, it is recommended eligible for NRHP listing under Criterion C. The proposed NRHP boundary of the North Branch Pennsylvania Canal in the project area encompasses the main resource and includes the current Right-of-Way to its limits. However, the historical significance of the section of canal in the project vicinity cannot be conveyed in its entirety apart from the North Branch Canal District (141673) in adjacent Berwick Borough. As such, it should be considered as a contributing resource to the North Branch Canal District, which has been previously surveyed.

Table 2. Application of the Criteria of Effect to the North Branch Pennsylvania Canal (141673)

Criteria of Effect	Evaluation
An undertaking shall be considered to have an effect on a National Register property or National Register-eligible property whenever any condition of the undertaking:	
(A) Causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural character that qualifies the property under the National Register Criteria.	(A) The North Branch Pennsylvania Canal is considered eligible for listing in the NRHP under Criteria A and C. The proposed construction will not cause a change in the qualifying characteristics of the historic property.
(B) Changes the integrity of location, design, setting, materials, workmanship, feeling, or association of the property that contribute to its significance in accordance with the National Register criteria.	(B) The proposed construction will change the historic property's integrity of setting by introducing visual effects into the viewshed.
(C) Changes (direct or indirect) in patterns of land use, population density, or growth rate that may affect properties of historical, architectural, archaeological, or cultural significance.	(C) The proposed construction will not introduce changes in land use patterns or demographics that may affect the historic property
	Determination: The proposed action will have an <u>Effect</u> on the North Branch of the Pennsylvania Canal.

**Table 3. Application of the Criteria of Adverse Effect to the North Branch Pennsylvania Canal
(141673)**

Criteria of Adverse Effect	Determination of Adverse Effect
Physical destruction of or damage to all or part of the property?	<p>No Effect</p> <p>Based on current design plans provided to GAI, the proposed construction will occur within the boundaries and in the immediate vicinity of the North Branch Pennsylvania Canal. However, the current design plans do not require any physical destruction or damage to the North Branch Pennsylvania Canal. Therefore, as long as no physical destruction or damage occurs to the historic property the proposed project will result in No Effect to the Historic Property.</p>
Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access?	<p>No Effect</p> <p>As mentioned above, based on current design plans provided to GAI, the proposed construction that will occur within the boundaries of the Historic Property will occur underground and beneath the Historic Property, and will not require the physical alteration of the North Branch Pennsylvania Canal.</p>
Removal of the property from its historic location?	<p>No Effect</p> <p>Based on current design plans, the proposed construction does not necessitate the re-routing or removal of any part of the North Branch Pennsylvania Canal, and therefore the Historic Property will retain its historic location.</p>
Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance?	<p>No Adverse Effect</p> <p>The visible proposed construction that will occur in the immediate vicinity of the North Branch Pennsylvania Canal is associated with the proposed intake structure on the bank of the Susquehanna River, adjacent to existing SSES facilities that pre-date the NRHP-eligibility of the Historic Property. The proposed construction will introduce elements to the property's setting that are already present with the existing SSES facilities, and will not compromise the setting to a degree that would diminish the significant qualities that make the North Branch Pennsylvania Canal eligible for listing in the NRHP.</p>
Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features?	<p>No Adverse Effect</p> <p>The proposed construction will introduce visible elements to the North Branch Pennsylvania Canal including structures within the immediate vicinity associated with an intake structure on the bank of the Susquehanna River. However, the integrity of setting and feeling has already been compromised due to the existing SSES facilities that are adjacent to the proposed construction. The current SSES facilities pre-date the NRHP eligibility of the North Branch Pennsylvania Canal. The proposed construction will be adjacent to the existing facilities. Although none is expected, any additional visual impact will not diminish the significant features that qualify this resource for listing in the NRHP.</p>
Neglect of the property, which results in its demolition?	<p>No Effect</p> <p>The proposed construction will not result in neglect leading to demolition of any part of this historic resource.</p>
Transfer, lease, or sale of property out of federal ownership or control?	<p>No Effect</p> <p>Since the North Branch Pennsylvania Canal is not federally owned or controlled, the proposed construction cannot result in the transfer, lease, or sale of any part of the property out of federal control.</p>
DETERMINATION	<p>The proposed construction will have No Adverse Effect on the North Branch Pennsylvania Canal. The existing SSES facilities currently visible from the property predate the determination of NRHP eligibility, and the additional visual impact of the proposed facilities will not diminish the historic and architectural significance to a degree that the historic property no longer conveys its historic significance. Based on current design plans provided to GAI, the proposed construction within the vicinity of this historic resource will occur underground and will not require the physical destruction, damage, or alteration of the canal. Therefore, since no physical destruction or damage will occur to the North Branch Pennsylvania Canal, the proposed project will result in No Adverse Effect to the historic resource.</p>

Union Reformed and Lutheran Church (155049)

Built in 1833, this Greek Revival church building stands two stories tall on a stone foundation. The exterior of this building is clad in weatherboard, and the gable roof is topped by V-crimp metal sheathing. The roofline is marked by a plain frieze with ornately carved corbels and brackets with drop pendants, and the gable ends have plain rakeboards with cornice returns. The building features detailed wood moulding throughout, including cornerboards, window surrounds, and ornate door surrounds on the east, west, and south elevations.

The fenestration consists of 15/15, 15/10, and 30/25 double-hung wood sash windows, trimmed by shutters on the first story. Additionally, decorative gable end attic story windows are present on the east and west elevations, and each entrance is marked by elaborate transom windows and frontispiece with raised panel doors. Stone steps mark the entrances, with a modern wood access ramp on the south elevation. A one-story, concrete block privy is also located on the property. This privy has a gable roof with composition shingles and no window apertures.

Associated with the church is a cemetery, which is located to the south of the building. This cemetery is generally rectilinear and is surrounded by a wrought iron decorative fence. The cemetery contains several hundred burials, with the earliest noted date being 1805. The most recent burial dates from 1975. The cemetery contains the burials of some of the earliest settlers in the Wapwallopen area, including some of its more prominent pioneer residents.

The church was constructed in 1833 by the Union Reformed and Lutheran Congregations. The woodwork was hand-carved by Master Carpenter Daniel Walp, with the assistance of Michael Weiss and William Hess. Hardware for the building may have been supplied by Peter Maurer, a local blacksmith. On September 4, 1887, the Reformed congregation discontinued their use of the church, and on October 4, 1908, the Lutheran congregation did as well. The building underwent restoration in 1952 by the Wapwallopen Historical Society.

The cemetery at the Union Lutheran and Reformed Church includes the graves of many of Wapwallopen's prominent local founding families. For example, John Andress, Abraham Andress, Peter Ennes, John Fenstermacher, Philip Fenstermacher, Michael Weiss, Johann Martin Harter (a veteran of the American Revolution), Isaac Heller, Jeremiah Hess, Peter Maurer, and their families are buried here. The Heller and Fenstermacher families were prominent millers in Wapwallopen. Being the second Lutheran Church established in Nescopeck, this church community building and cemetery illustrate the growth and development of the Lutheran church in Nescopeck Township. In 1860, the congregation included 52 German Reformed Lutherans and 70 Lutherans.

The massing and plan, as well as the architectural refinement, of the church reflect theological attitudes of the Wapwallopen congregation toward the material world, as well as the transformation of ecclesiastical architecture on the national level. The Union Reformed and Lutheran Church's "squarish rectangular" design is a late example of the traditional meetinghouse form, which featured an entrance aperture in the long wall and a three-sided gallery embracing a pulpit positioned on the back wall. The original pulpit was replaced in the late nineteenth century by a low rostrum. This feature was removed and a new pulpit approximating the configuration of the original one was installed during a 1952 restoration (Lounsbury: 2006: 2).

By 1800, preferences in American ecclesiastical architecture were evolving in favor of decidedly rectangular and axial plans—with the principal entrance in the shorter gable end and larger window apertures. The intricate detailing in each doorway's frontispiece symbolizes the congregation's emphasis on music and the Eucharist in the liturgy. The pulpit and the altar in the interior mark the importance of the sacrament and scriptural exegesis in Lutheran worship in comparison to other Protestant sects. Furthermore, the church's ornamentation illustrates the Lutherans' appreciation for embellishments that "glorify the majesty of God." While the church's design and style symbolize Lutheran spiritual practices, the church's character also manifests a historic period during the Second

Great Awakening when a church building's components, which had been indexical of the denomination worshipping there, no longer clearly differentiated regional or denominational attributes and preferences.

This resource demonstrates an association with early 19th-century rural and religious life, as the church building served as the focal point of the community's activities. The surviving church building (and its associated cemetery) reflects the theme of religious and cultural values of the surrounding community and therefore is recommended eligible for NRHP listing under Criterion A. Since the burial population includes significant individuals in the history of the church, this resource also is recommended NRHP eligible under Criterion B. The church building has been restored, but clearly, the restoration was carried out to preserve and retain the massing and plan intended by the Union Reformed and Lutheran Congregations, specifically concerning the replacement of the original pulpit. Likewise, the restoration did not rob the building of any of its architectural refinement as the building is still trimmed with a number of delicate features. Special flourishes include the stylized paterae and cabling in the breastwork of the gallery, and the Christian symbolism carved in the entablature of the main entrance frontispiece consisting of lyres, harps, flagon, and a chalice. Additionally, since the exquisite hand-carved woodwork executed by Master Carpenter Daniel Walp (with assistance from Michael Weiss and William Hess) survives on this church building, it is recommended NRHP eligible under Criterion C. The proposed NRHP boundary for this resource has been drawn to include the contributing church and cemetery, as well as the non-contributing privy.

Table 4. Application of the Criteria of Effect to the Union Reformed and Lutheran Church (155049)

Criteria of Effect	Evaluation
An undertaking shall be considered to have an effect on a National Register property or National Register-eligible property whenever any condition of the undertaking:	
(A) Causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural character that qualifies the property under the National Register Criteria.	(A) The Union Reformed and Lutheran Church is considered eligible for listing in the NRHP under Criteria A, B, and C. The proposed construction will not cause a change in the qualifying characteristics of the historic property.
(B) Changes the integrity of location, design, setting, materials, workmanship, feeling, or association of the property that contribute to its significance in accordance with the National Register criteria.	(B) The proposed construction will change the historic property's integrity of setting by introducing visual effects, such as the proposed cooling towers, into the viewshed.
(C) Changes (direct or indirect) in patterns of land use, population density, or growth rate that may affect properties of historical, architectural, archaeological, or cultural significance.	(C) The proposed construction will not introduce changes in land use patterns or demographics that may affect the historic property
	Determination: The proposed action will have an <u>Effect</u> on the Union Reformed and Lutheran Church

Table 5. Application of the Criteria of Adverse Effect to the Union Reformed and Lutheran Church (155049)

Criteria of Adverse Effect	Determination of Adverse Effect
Physical destruction of or damage to all or part of the property?	No Effect All proposed construction will occur outside the limits of the historic property boundary. No part of the proposed project will result in damage or destruction to any part of the historic property

Criteria of Adverse Effect	Determination of Adverse Effect
Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access?	<p>No Effect</p> <p>Since all proposed project construction will occur outside the limits of the historic property's boundary, no alterations to the property that would result in restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, or provision of handicapped access will occur.</p>
Removal of the property from its historic location?	<p>No Effect</p> <p>The proposed construction will occur outside of the historic property boundary, and therefore the historic property will retain its historic location.</p>
Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance?	<p>No Effect</p> <p>Since the proposed construction will occur outside the limits of the historic property's boundary, the proposed construction will not change the character of the property's use or the physical features within the property's setting that contribute to its historical significance.</p>
Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features?	<p>No Adverse Effect</p> <p>While all the proposed construction will occur outside the limits of the historic property's boundary, the proposed cooling towers will be visible from the historic property. However, the integrity of setting and feeling has already been compromised due to the existing SSES cooling towers that are visible from the historic property. The existence of the current cooling towers pre-date the NRHP eligibility of the Union Reformed and Lutheran Church. The proposed construction will be adjacent to the existing facilities. The additional visual impact will not diminish the significant features that qualify this resource for NRHP listing.</p>
Neglect of the property, which results in its demolition?	<p>No Effect</p> <p>The proposed construction will not result in neglect leading to demolition of any part of the Union Reformed and Lutheran Church property.</p>
Transfer, lease, or sale of property out of federal ownership or control?	<p>No Effect</p> <p>Since the Union Reformed and Lutheran Church is not federally owned or controlled, the proposed construction cannot result in the transfer, lease, or sale of any part of the property out of federal control.</p>
DETERMINATION	<p>The proposed construction will have No Adverse Effect on the Union Reformed and Lutheran Church. The existing cooling towers currently visible from the property predate the determination of NRHP eligibility, and the additional visual impact of a second set of cooling towers will not diminish the historic and architectural significance to a degree that the historic property no longer conveys its historic significance.</p>

Woodcrest (155052)

Originally dating from 1805, Woodcrest is a farmstead anchored by a 2-story, brick, Federal style house which was constructed in 1822. This house has a 1-story rear ell, and is constructed on a stone foundation with a common bond brick exterior. The gable roof is clad in asphalt shingles. Three brick interior chimneys pierce the roof, which is marked by a molded frieze and rakeboards and is trimmed with cornice returns and late-19th-century Italianate style corbels and brackets. The full-width, hip-roofed porch also appears to date from the later 1800s, as it is executed in an Eastlake style with detailed spandrels and pendants. The fenestration consists of 2/2 and 2/4 double-hung, wood sash windows, all trimmed with shutters. Each gable end is also marked by a pair of quarter-round, attic story windows.

Also associated with the main house is a 1.5-story, gable roofed, brick secondary living quarters. Built on a stone foundation, this building is constructed of brick laid in common bond and has a gable roof clad in asphalt shingles. There are entrances on the south and west elevations, marked by a gable-roofed portico and shed-roofed porch, respectively. The fenestration consists of 2/2 double-hung, wood

sash windows, with shorter windows on the second story. A single brick interior chimney pierces the roofline.

A second brick outbuilding is located to the south and east of the main house. Constructed on a smaller scale, this building has a gable roof, and may have been used as a summer kitchen.

Located opposite these residential buildings is a large, gable-roofed, heavy timber-framed bank barn. This large barn is built on a stone foundation and is clad in horizontal wood siding. The roof is clad in V-crimp metal, and two gable-roofed cupola vents are located along the ridge line. The fenestration throughout consists of louvered vent openings with molded wood drip caps and surrounds. A sliding double door marks the entrance from the earthen embankment approach. A small, one-room concrete block addition is located on the south elevation. To the northeast of the barn is a 20th-century concrete block garage with a shed roof. The façade of this building is marked by a large, 40-light, central sliding door flanked by two smaller solid doors on strap hinges. Additionally, there is a small, 1-story, wood-framed shed to the west of these outbuildings. This shed-roofed building is clad in vertical wood siding. It is in deteriorated condition.

Around 1840, the North (and West) Branch Susquehanna Diversified Farming Region emerged as a distinct region. Between 1840 and 1860, developments in transportation systems as well as the general temperance movement that was effecting the entire nation, facilitated a shift away from the trend of cultivating grain for whiskey and prompted a surge in the production of corn, wheat, pork, and butter (PHMC 2009: 152). Between 1860 and 1940, agriculture in the region was influenced by nearby growing industrial areas, easily reached by the newly constructed canal and rail transportation systems. Local farms focused on a diverse mix of products to satisfy these markets. However, the crops and livestock changed only subtly in this region, and farming in the area continued to exhibit a highly diversified approach consisting mainly of wheat, corn, hay, and oat crops, with the raising of milk cows, sheep, cattle, and swine (PHMC 2005: 153).

Typical of farmsteads in the North Branch Susquehanna Diversified Farming Region in the 1840-1860 period, the current Woodcrest property, historically the William Harter farmstead, witnessed a diversification of agriculture—characterized by crops of wheat, corn, hay, and oats, a small surplus of butter, small numbers of milk cows, sheep, and beef animals, and higher than average numbers of swine (PHMC 2005: 153). 1850 Agricultural Census Manuscripts reflect this diversification, indicating that William Harter held 140 acres of improved and 40 acres of unimproved land in Hollenback (present-day Conyngham) Township and owned four (4) milk cows, seven (7) sheep, eighteen (18) swine, and two (2) cattle. In 1849, Harter's farmstead produced 250 pounds of butter, 300 bushels of wheat, 600 bushels of Indian corn, and 600 bushels of oats (NARA 1850: Hollenback). Also indicative of subtle changes in the Harter Farmstead's product mix and consumption by both family and livestock is the presence of the Pennsylvania Barn which represents "an efficient adaptation to new conditions throughout eastern Pennsylvania in the early 19th century...as it reflected new grain and livestock systems in that it housed livestock on the lower level and accommodated hay storage, grain storage, and threshing on the upper level" (PHMC 2005: 165).

The Harter farmstead continued to adapt in the latter part of the 19th century and seemingly followed the trend of many farmers in the North and West Branch Susquehanna River Valley who when presented with stiff competition from western wheat and flour growers, decided to develop and sell more perishable products and local specialties (PHMC 2005: 173). 1880 Agricultural Census Manuscripts indicate that 750 pounds of butter were produced on the farm in 1879, as compared to only 250 in 1849 (NARA 1880: Conyngham).

Family labor still predominated on farms in the 1860-1940 period. On average, the 1880 manuscript census indicates that a typical farm seldom hired even a single laborer (usually male) for more than 28 weeks, and most were only kept for ten or fewer weeks (PHMC 2005: 180). However, the 1880 Agricultural Census Manuscripts for Conyngham Township indicated that \$250 was "paid for wages for farm labor during 1879 including value of board" by the Harter farmstead. This agricultural census data is further supported by the presence of the secondary living quarters, which could have served as a tenant house. Unfortunately, J. Hiram Miller, the owner of the farmstead in 1927 could not be located in

the Agricultural Census Manuscripts for that year; therefore, 20th century agricultural census data is not available for comparison.

This collection of residential and agricultural buildings combines to form a resource that clearly reflects the rural agrarian life and agricultural practices of Conyngham (formerly Hollenback) Township in the 19th and 20th centuries. Further confirmed by 1938 aerial photography is the presence of associated agricultural outbuildings identified extant by historical and architectural survey fieldwork (Penn Pilot 1938). As such, Woodcrest is recommended eligible for NRHP listing under Criterion A. No evidence could be located to connect this resource with any significant individuals in local or regional history. Therefore, this resource is recommended not eligible for NRHP listing under Criterion B. Both the main house and its outbuildings maintain sufficient integrity to convey their architectural significance. Additionally, the main house reflects elements of several historical styles from throughout its existence. Therefore, this resource is recommended eligible for NRHP listing under Criterion C.

Table 6. Application of the Criteria of Effect to Woodcrest (155052)

Criteria of Effect	Evaluation
An undertaking shall be considered to have an effect on a National Register property or National Register-eligible property whenever any condition of the undertaking:	
(A) Causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural character that qualifies the property under the National Register Criteria.	(A) Woodcrest is considered eligible for listing in the NRHP under Criteria A and C. The proposed construction will not cause a change in the qualifying characteristics of the historic property.
(B) Changes the integrity of location, design, setting, materials, workmanship, feeling, or association of the property that contribute to its significance in accordance with the National Register criteria.	(B) The proposed construction will change the historic property's integrity of setting by introducing visual effects, such as the proposed cooling towers, into the viewshed.
(C) Changes (direct or indirect) in patterns of land use, population density, or growth rate that may affect properties of historical, architectural, archaeological, or cultural significance.	(C) The proposed construction will not introduce changes in land use patterns or demographics that may affect the historic property
Determination: The proposed action will have an <u>Effect</u> on the Woodcrest farmstead.	

Table 7. Application of the Criteria of Adverse Effect to Woodcrest (155052)

Criteria of Adverse Effect	Determination of Adverse Effect
Physical destruction of or damage to all or part of the property?	No Effect All proposed project construction will occur outside the limits of the historic property boundary. No part of the proposed project will result in damage or destruction to any part of the historic property.
Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access?	No Effect Since all proposed project construction will occur outside the limits of the historic property's boundary, no alterations to the property that would result in restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, or provision of handicapped access will occur.
Removal of the property from its historic location?	No Effect The proposed construction will occur outside of the historic property boundary, and therefore the historic property will retain its historic location.

Criteria of Adverse Effect	Determination of Adverse Effect
Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance?	<p>No Effect</p> <p>Since the proposed construction will occur outside the limits of the historic property's boundary, the proposed construction will not change the character of the property's use or the physical features within the property's setting that contribute to its historical significance.</p>
Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features?	<p>No Adverse Effect</p> <p>While all the proposed construction will occur outside the limits of the historic property's boundary, the proposed cooling towers will be visible from the historic property. However, the integrity of setting and feeling has already been compromised due to the existing SSES cooling towers that are visible from the historic property. The existence of the current cooling towers pre-dates the NRHP eligibility of the Woodcrest farmstead. The proposed construction will be adjacent to the existing facilities. The additional visual impact will not diminish the significant features that qualify this resource for NRHP listing.</p>
Neglect of the property, which results in its demolition?	<p>No Effect</p> <p>The proposed construction will not result in neglect leading to demolition of any part of the Woodcrest farmstead.</p>
Transfer, lease, or sale of property out of federal ownership or control?	<p>No Effect</p> <p>Since Woodcrest is not federally owned or controlled, the proposed construction cannot result in the transfer, lease, or sale of any part of the property out of federal control.</p>
DETERMINATION	<p>The proposed construction will have No Adverse Effect on Woodcrest. The existing cooling towers currently visible from the property predate the determination of NRHP eligibility, and the additional visual impact of a second set of cooling towers will not diminish the historic and architectural significance to a degree that the historic property no longer conveys its historic significance.</p>

The Bloomsburg Division of the Delaware, Lackawanna and Western Railway (155053)

In the vicinity of the project area, the railroad consists of a single set of steel tracks constructed on wooden ties within a stone-filled prism. There are a number of at-grade road crossings of this line throughout the area.

The Delaware, Lackawanna & Western Railroad Company had its origin as the Ligett's Gap Railroad which was chartered in 1832, although actual incorporation was not granted until 1849. In 1851, before construction was completed, the name was changed to the Lackawanna & Western Railroad Company. In October of that year, service actually began, with trains operating between Scranton and Great Bend, 54 miles to the north, where a connection was made with the New York and Erie.

The Delaware, Lackawanna & Western Railroad Company was formed in 1853 as a consolidation of the Lackawanna & Western and the Delaware & Cobb's Gap companies. The latter was in the process of construction eastward from Scranton across the Pocono Mountains to the Delaware River. Service between Scranton and Portland, on the Delaware, began in 1856.

The Lackawanna then worked on gaining access to the seaboard. First it leased the newly constructed Warren Railroad to provide a connection between Portland and New Hampton, New Jersey. The latter was a junction point with the Central Railroad of New Jersey, which hauled the coal received from the Lackawanna to its tidewater terminals. The Lackawanna, however, had ambitions for its own line into the New York area, and these were satisfied in 1869 with the leasing of the Morris & Essex Railroad, which stretched across northern New Jersey to Hoboken on the Hudson River.

The principal addition to the system in Pennsylvania occurred in 1873, when the Lackawanna & Bloomsburg, which had been chartered April 5, 1852, was merged with the Delaware, Lackawanna & Western. The Line of this road was along the Lackawanna River from Scranton to West Pittston and

then through the coal-rich Wyoming Valley and on westward along the North Branch of the Susquehanna to Northumberland. There it connected with the Northern Central Railroad. Construction of this line began in Scranton in 1854. The line reached Berwick in 1858, and was the first railroad to reach Bloomsburg, in the same year (Bicentennial Committee 1976: 4 and Saylor 1964: 59).

Although this line was a relatively small spur of an overall larger system, it remains historically significant as being the principal addition to the Delaware, Lackawanna & Western Railroad in Pennsylvania, the first railroad line chartered in this part of the Susquehanna Valley and the first railroad line to reach Bloomsburg. Therefore, this resource is recommended eligible for NRHP listing under Criterion A for its association with transportation and commerce in the region. No documentary evidence could be located to connect this resource with any significant individuals in local or regional history. As such, it is recommended not eligible for NRHP listing under Criterion B. This railroad does not possess any unique or distinctive engineering features in the vicinity of the project area. Since this is only a small, single-track configuration with no architecturally significant associated structures or buildings (e.g., bridges, turntables, depots, etc.), it is recommended not eligible for NRHP listing under Criterion C. The recommended NRHP boundary of The Bloomsburg Division of the Delaware, Lackawanna & Western Railway incorporates the Right-of-Way limits, including the ballast, ties, and track.

Table 8. Application of the Criteria of Effect to The Bloomsburg Division of the Delaware, Lackawanna & Western Railway (155053)

Criteria of Effect	Evaluation
An undertaking shall be considered to have an effect on a National Register property or National Register-eligible property whenever any condition of the undertaking:	
(A) Causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural character that qualifies the property under the National Register Criteria.	(A) The Bloomsburg Division of the Delaware, Lackawanna & Western Railway is considered eligible for listing in the NRHP under Criterion A. The proposed construction will not cause a change in the qualifying characteristics of the historic property.
(B) Changes the integrity of location, design, setting, materials, workmanship, feeling, or association of the property that contribute to its significance in accordance with the National Register criteria.	(B) The proposed construction will change the Historic Property's integrity of setting by introducing visual effects into the viewshed.
(C) Changes (direct or indirect) in patterns of land use, population density, or growth rate that may affect properties of historical, architectural, archaeological, or cultural significance.	(C) The proposed construction will not introduce changes in land use patterns or demographics that may affect the Historic Property
	Determination: The proposed action will have an <u>Effect</u> on The Bloomsburg Division of the Delaware, Lackawanna & Western Railway.

Table 9. Application of the Criteria of Adverse Effect to The Bloomsburg Division of the Delaware, Lackawanna & Western Railway (155053)

Criteria of Adverse Effect	Determination of Adverse Effect
Physical destruction of or damage to all or part of the property?	No Effect Based on current design plans provided to GAI, the proposed construction will occur within the boundaries of The Bloomsburg Division of the Delaware, Lackawanna & Western Railway. However, the proposed construction that will occur within the boundaries of the historic property will not require any physical destruction or damage to the railway. Therefore, as long as no physical destruction or damage occurs to The Bloomsburg Division of the Delaware, Lackawanna & Western Railway the proposed project will result in No Effect to the Historic Property.

Criteria of Adverse Effect	Determination of Adverse Effect
Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access?	<p>No Effect</p> <p>As mentioned above, based on current design plans provided to GAI, the proposed construction that will occur within the boundaries of the Historic Property will occur underground and beneath the Historic Property, and will not require the physical alteration of the Bloomsburg Division of the Delaware, Lackawanna & Western Railway.</p>
Removal of the property from its historic location?	<p>No Effect</p> <p>Based on current design plans, the proposed construction does not necessitate the re-routing or removal of any part of The Bloomsburg Division of the Delaware, Lackawanna & Western Railway, and therefore the Historic Property will retain its historic location.</p>
Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance?	<p>No Effect</p> <p>The proposed construction will not result in the change of the Historic Property's use, and all proposed construction within the boundaries of the Historic Property will occur below ground and underneath the railway, and will therefore not change any of the physical features within the Historic Properties setting that contribute to its historic significance.</p>
Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features?	<p>No Adverse Effect</p> <p>The proposed construction will introduce visible elements to The Bloomsburg Division of the Delaware, Lackawanna & Western Railway. However, the integrity of setting and feeling has already been compromised due to the existing SSES facilities that are visible along the majority of the railway's route within the project APE. The current SSES facilities pre-date the NRHP eligibility of the Bloomsburg Division of the Delaware, Lackawanna & Western Railway. The additional visual impact will not diminish the significant features that qualify this resource for listing in the NRHP.</p>
Neglect of the property, which results in its demolition?	<p>No Effect</p> <p>The proposed construction will not result in neglect leading to demolition of any part of the historic resource.</p>
Transfer, lease, or sale of property out of federal ownership or control?	<p>No Effect</p> <p>Since the railway is not federally owned or controlled, the proposed construction cannot result in the transfer, lease, or sale of any part of the property out of federal control.</p>
DETERMINATION	<p>The proposed construction will have No Adverse Effect on The Bloomsburg Division of the Delaware, Lackawanna & Western Railway. The existing SSES facilities currently visible from the property predate the determination of NRHP eligibility, and the additional visual impact of the proposed facilities will not diminish the historic and architectural significance to a degree that the historic property no longer conveys its historic significance. Based on current design plans, proposed construction will also include an underground component beneath the railway and will not require the physical destruction, damage, or alteration of the historic property. Therefore, as long as no physical destruction or damage occurs to The Bloomsburg Division of the Delaware, Lackawanna & Western Railway, the proposed project will result in No Adverse Effect to the historic property.</p>

Stone Arch Bridge (155054)

Built circa 1935, this stone arch bridge spans Walker Run. The bridge is constructed of stone with stone voussoirs marked by granite keystones. The stones are joined by beaded mortar joints; some of which have been repointed. The main span is extended by short wing walls on each end, and the superstructure is capped by pre-cast concrete coping. The bridge carries a single, asphalt-paved traffic lane.

As a county bridge, the Stone Arch Bridge (155054) is not identified by a Department of Transportation BMS number and bears no date stone. Only three (3) single span stone arch bridges, approximately 20 feet in length, were identified in Luzerne County—the Stone Arch and North Market Street Bridges — being the only ones in the project area. The other bridge, previously surveyed and located at the Creek Crossing of L.R. 40093 in Salem Township (092634), was constructed in 1941 by the Works Progress

Administration (WPA) and served as a reference in the evaluation of the Stone Arch Bridge. Since no documentary evidence was available to evaluate this resource, a comparison was made to the similar bridges in Luzerne County in terms of materials, number of spans, span type, length, date of construction, and builder.

This bridge is not directly associated with any significant events or trends in local or regional history. As such, it is recommended not eligible for NRHP listing under Criterion A. No documentary evidence linking the bridge to any significant individuals in local or regional history could be identified. Therefore, this bridge is recommended not eligible for NRHP listing under Criterion B. This bridge, however, is a rare and well-preserved example of a 20th-century stone arch bridge in the area, being one of only three known to exist in Luzerne County. Therefore, it is recommended eligible for NRHP listing under Criterion C.

Table 10. Application of the Criteria of Effect to the Stone Arch Bridge (155054)

Criteria of Effect	Evaluation
An undertaking shall be considered to have an effect on a National Register property or National Register-eligible property whenever any condition of the undertaking:	
(A) Causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural character that qualifies the property under the National Register Criteria.	(A) The Stone Arch Bridge is considered NRHP-eligible under Criterion C. The proposed construction will not cause a change in the qualifying characteristics of the Stone Arch Bridge.
(B) Changes the integrity of location, design, setting, materials, workmanship, feeling, or association of the property that contribute to its significance in accordance with the National Register criteria.	(B) The proposed construction will change the Stone Arch Bridge's integrity of setting by introducing visual effects into the viewshed.
(C) Changes (direct or indirect) in patterns of land use, population density, or growth rate that may affect properties of historical, architectural, archaeological, or cultural significance.	(C) The proposed construction will not introduce changes in land use patterns or demographics that may affect the historic property.
Determination: The proposed action will have an <u>Effect</u> on the Stone Arch Bridge.	

Table 11. Application of the Criteria of Adverse Effect to the Stone Arch Bridge (155054)

Criteria of Adverse Effect	Determination of Adverse Effect
Physical destruction of or damage to all or part of the property?	No Effect All proposed project construction will occur outside the limits of the historic property boundary. No part of the proposed project will result in damage or destruction to any part of the historic property.
Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access?	No Effect Since all proposed project construction will occur outside the limits of the historic property's boundary, no alterations to the property that would result in restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, or provision of handicapped access will occur.
Removal of the property from its historic location?	No Effect The proposed construction will occur outside of the historic property boundary, and therefore the historic property will retain its historic location.
Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance?	No Effect Since the proposed construction will occur outside the limits of the historic property's boundary, the proposed construction will not change the character of the property's use or the physical features within the property's setting that contribute to its historical significance.

Criteria of Adverse Effect	Determination of Adverse Effect
Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features?	No Adverse Effect While all the proposed construction will occur outside the limits of the historic property's boundary, the proposed cooling towers and some of the associated structures will be visible from the historic property. However, the integrity of setting and feeling has already been compromised due to the existing SSES cooling towers that are currently visible from the historic property. The existence of the current cooling towers pre-dates the NRHP eligibility of the Stone Arch Bridge. The proposed construction will be adjacent to the existing facilities, and the additional visual impact will not diminish the significant features that qualify this resource for NRHP listing.
Neglect of the property, which results in its demolition?	No Effect The proposed construction will not result in neglect leading to demolition of the Stone Arch Bridge.
Transfer, lease, or sale of property out of federal ownership or control?	No Effect Since the Stone Arch Bridge is not federally owned or controlled, the proposed construction cannot result in the transfer, lease, or sale of any part of the property out of federal control.
DETERMINATION	The proposed construction will have No Adverse Effect on the Stone Arch Bridge. The existing cooling towers currently visible from the property predate the determination of NRHP eligibility, and the additional visual impact of a second set of cooling towers and associated structures will not diminish the historic and architectural significance to a degree that the historic property no longer conveys its historic significance.

North Market Street Bridge (155055)

Built circa 1935, this stone arch bridge spans Walker Run approximately 1 mile north of the small community of Beach Haven. The bridge is constructed of stone with stone voussoirs marked by keystones. The stones are joined by beaded mortar joints; some of which have been repointed. The main span reaches a pointed apex in the middle of the span and is extended by short wing walls on each end, and the parapets of the superstructure are capped by granite coping. The bridge carries a single, asphalt-paved traffic lane.

Like the Stone Arch Bridge (155054), the North Market Street Bridge is not identified by a Department of Transportation BMS number and bears no date stone. Only three (3) single span stone arch bridges, approximately 20 feet in length, were identified in Luzerne County—the North Market and Stone Arch Bridges—being the only ones in the project area. The other bridge, previously surveyed and located at the Creek Crossing of L.R. 40093 in Salem Township (092634), was constructed in 1941 by the Works Progress Administration (WPA) and served as a reference in the evaluation of the North Market Street Bridge. Since no documentary evidence was available to evaluate this resource, a comparison was made to the similar bridges in Luzerne County in terms of materials, number of spans, span type, length, date of construction, and builder.

This bridge is not directly associated with any significant events or trends in local or regional history. As such, it is recommended not eligible for NRHP listing under Criterion A. No documentary evidence linking the bridge to any significant individuals in local or regional history could be identified. Therefore, this bridge is recommended not eligible for NRHP listing under Criterion B. This bridge, however, is a rare and well-preserved example of a 20th-century stone arch bridge in the area, being one of only three known to exist in Luzerne County. Therefore, it is recommended eligible for NRHP listing under Criterion C.

Table 12. Application of the Criteria of Effect to the North Market Street Bridge (155055)

Criteria of Effect	Evaluation
An undertaking shall be considered to have an effect on a National	

Criteria of Effect	Evaluation
Register property or National Register-eligible property whenever any condition of the undertaking:	
(A) Causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural character that qualifies the property under the National Register Criteria.	(A) The North Market Street Bridge is considered NRHP-eligible under Criterion C. The proposed construction will not cause a change in the qualifying characteristics of the Stone Arch Bridge.
(B) Changes the integrity of location, design, setting, materials, workmanship, feeling, or association of the property that contribute to its significance in accordance with the National Register criteria.	(B) The proposed construction will change the North Market Street Bridge's integrity of setting by introducing visual effects, such as the cooling towers, vent stacks, and reactor building, into the viewshed.
(C) Changes (direct or indirect) in patterns of land use, population density, or growth rate that may affect properties of historical, architectural, archaeological, or cultural significance.	(C) The proposed construction will not introduce changes in land use patterns or demographics that may affect the historic property.
	Determination: The proposed action will have an <u>Effect</u> on the North Market Street Bridge.

Table 13. Application of the Criteria of Adverse Effect to the North Market Street Bridge (155055)

Criteria of Adverse Effect	Determination of Adverse Effect
Physical destruction of or damage to all or part of the property?	No Effect All proposed project construction will occur outside the limits of the historic property boundary. No part of the proposed project will result in damage or destruction to any part of the historic property.
Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access?	No Effect Since all proposed project construction will occur outside the limits of the historic property's boundary, no alterations to the property that would result in restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, or provision of handicapped access will occur.
Removal of the property from its historic location?	No Effect The proposed construction will occur outside of the historic property boundary, and therefore the historic property will retain its historic location.
Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance?	No Effect Since the proposed construction will occur outside the limits of the historic property's boundary, the proposed construction will not change the character of the property's use or the physical features within the property's setting that contribute to its historical significance.
Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features?	No Adverse Effect While all the proposed construction will occur outside the limits of the historic property's boundary, the proposed cooling towers will be visible from the historic property. However, the integrity of setting and feeling has already been compromised due to the existing SSES cooling towers that are currently visible from the historic property. The existence of the current cooling towers pre-dates the NRHP eligibility of the North Market Street Bridge. The proposed construction will be adjacent to the existing facilities, and the additional visual impact will not diminish the significant features that qualify this resource for NRHP listing.
Neglect of the property, which results in its demolition?	No Effect The proposed construction will not result in neglect leading to demolition of the North Market Street Bridge.
Transfer, lease, or sale of property out of federal ownership or control?	No Effect Since the North Market Street Bridge is not federally owned or controlled, the proposed construction cannot result in the transfer, lease, or sale of any part of the property out of federal control.

Criteria of Adverse Effect	Determination of Adverse Effect
DETERMINATION	The proposed construction will have No Adverse Effect on the North Market Street Bridge. The existing cooling towers currently visible from the property predate the determination of NRHP eligibility, and the additional visual impact of a second set of cooling towers will not diminish the historic and architectural significance to a degree that the historic property no longer conveys its historic significance.

Red Brick Studios (155064)

Constructed circa 1880, this resource is a 2-story, gable-roofed, vernacular brick house with elements of the Gothic Revival style, built on a modified T plan. This house is built on a brick foundation and has common bond brick exterior walls. The steeply-pitched gable roof is clad in asphalt shingles, and it is marked by a steeply-pitched cross gable with pent eaves. This cross gable is clad in fish scale shingles, as are the gable ends. The roofline is marked by a molded frieze band and gable end returns. A full-width, hip-roofed porch with Doric columns is located on the façade. The centered door is flanked by squared pilasters with a splayed reveal and decorative door molding with cornerblocks. A shallow, screened side porch is also marked by Doric columns with decorative detailing similar to that of the principal entrance. The fenestration on the house includes 1/1 double-hung vinyl sash windows with splayed reveals and cut stone lintels and sills. The rear ell has a corbelled gable end chimney.

Associated with this property is a collection of several domestic outbuildings that date from circa 1880 to circa 1970. Immediately to the rear of the house is a modern 3-bay, gable-roofed, wood-framed garage (garage #1). This building is clad in vinyl and has a composition shingle-clad roof. Three vinyl doors mark the vehicle entrances, and a man door is located on the south elevation. Located next to this modern garage is an original smokehouse/summer kitchen building. This wood-framed building is built on a stone foundation, is clad in weatherboard, and is topped by a gable roof clad in asphalt shingles. The west elevation of this building is marked by a substantial exterior brick chimney that is built on a stone foundation.

Located to the east of the house and opposite the modern garage is an early 20th-century wood framed garage (garage #2). This building is clad in weatherboard and has a steeply-pitched gable roof clad in asphalt shingles. The sides of this building have 6-light windows. A large barn and a small agricultural outbuilding have been demolished.

The extant collection of buildings at this property do not definitively convey the history of farming practices at this location in the late 19th and early 20th centuries. Furthermore, no documentary evidence could be located that identified a connection between this property and any significant trends or events in local history. Therefore, this resource is recommended not eligible for NRHP listing under Criterion A. No information identifying a connection between this property and any significant individuals in local history could be located. As such, this resource is recommended not NRHP eligible under Criterion B. The main house of this property stands as a well-preserved and rare example of Gothic Revival-influenced vernacular architecture in this area from the late 19th century. Additionally, two of the outbuildings maintain sufficient integrity to convey their architectural significance. As such, this resource is recommended eligible for NRHP listing under Criterion C. The proposed NRHP boundary for this resource has been drawn to include the contributing main house, smokehouse/summer kitchen, and garage #2 while excluding the non-contributing garage #1.

Table 14. Application of the Criteria of Effect to Red Brick Studios (155064)

Criteria of Effect	Evaluation
An undertaking shall be considered to have an effect on a National Register property or National Register-eligible property whenever any condition of the undertaking:	

Criteria of Effect	Evaluation
(A) Causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural character that qualifies the property under the National Register Criteria.	(A) The Red Brick Studios is considered NRHP-eligible under Criterion C. The proposed construction will not cause a change in the qualifying characteristics of the Historic Property.
(B) Changes the integrity of location, design, setting, materials, workmanship, feeling, or association of the property that contribute to its significance in accordance with the National Register criteria.	(B) The proposed construction will change the property's integrity of setting by introducing such visual effects as the cooling towers. However, the existing SSES cooling towers are presently visible from the resource.
(C) Changes (direct or indirect) in patterns of land use, population density, or growth rate that may affect properties of historical, architectural, archaeological, or cultural significance.	(C) The proposed construction will not introduce changes in land use patterns or demographics that may affect the Red Brick Studios.
Determination: The proposed action will have an <u>Effect</u> on the Red Brick Studios.	

Table 15. Application of the Criteria of Adverse Effect to Red Brick Studios (155064)

Criteria of Adverse Effect	Determination of Adverse Effect
Physical destruction of or damage to all or part of the property?	No Effect The proposed construction will occur outside the limits of this Historic Property boundary. No part of the proposed construction will cause destruction or damage to any part of the Historic Property.
Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access?	No Effect The proposed construction will not result in any alterations to Red Brick Studios. The proposed construction will not inhibit any current function of the property due to the considerable distance of the Historic Property to the proposed construction.
Removal of the property from its historic location?	No Effect The proposed construction will not cause the removal of Red Brick Studios.
Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance?	No Effect The proposed construction will not alter the character of the historic property's use or its physical features within the property's setting. While the proposed construction will introduce such visual elements as cooling towers and steam clouds outside of the historic property's boundaries, these features will not change the use of the property or any of its physical features within the property's setting.
Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features?	No Adverse Effect While all the proposed construction will occur outside the limits of the historic property's boundary, the proposed cooling towers will be visible from the historic property. However, the integrity of setting and feeling has already been compromised due to the existing SSES cooling towers that are currently visible from the historic property. The existence of the current cooling towers pre-dates the NRHP eligibility of the Red Brick Studios. The proposed construction will be adjacent to the existing facilities, and the additional visual impact will not diminish the significant features that qualify this resource for NRHP listing.
Neglect of the property, which results in its demolition?	No Effect The proposed construction will not result in neglect leading to demolition of the Red Brick Studios.
Transfer, lease, or sale of property out of federal ownership or control?	No Effect Since the Red Brick Studios is not federally owned or controlled, the proposed construction cannot result in the transfer, lease, or sale of any part of the property out of federal control.

Criteria of Adverse Effect	Determination of Adverse Effect
DETERMINATION	The proposed construction will have No Adverse Effect on the Red Brick Studios. The existing cooling towers currently visible from the property predate the determination of NRHP eligibility, and the additional visual impact of a second set of cooling towers will not diminish the historic and architectural significance to a degree that the historic property no longer conveys its historic significance.

Pennsylvania Railroad-Sunbury Line/Delaware & Hudson Railroad (155065)

In the vicinity of the project area, this railroad line generally runs along the floodplain on the east bank of the Susquehanna River, often paralleling River Road and SR 239, in the vicinity of Nescopeck and Wapwallopen. Currently, the railroad consists of a single set of steel rails on wood ties, constructed on stone ballast. There are several at-grade highway crossings in the project vicinity. No ancillary features, such as depots or yards, were identified within the study area.

Originally a Pennsylvania Railroad route constructed following the Civil War as part of a series of short routes in the region to interchange with the Reading Company, Delaware Lackawanna & Western, and other northeastern anthracite-hauling roads, the Sunbury Line (also known as the North & West Branch Railroad) historically ran from Sunbury to Wilkes-Barre. This line was operated by the Pennsylvania Railroad until 1968, when the PRR was merged with the New York Central to form the Penn Central. Following Penn Central's bankruptcy, Congress decided to grant trackage rights to the Delaware & Hudson Railroad. This move extended the Delaware & Hudson's southern terminus from Wilkes-Barre to Sunbury, stretching as far north as Albany and Montreal. Congress believed that new trackage rights would strengthen the Delaware & Hudson's position as a bridge route carrier.

The Pennsylvania Railroad's (PRR) Sunbury Line originally served as a connector line for its Sunbury Division. On the PRR's Sunbury and Shamokin Divisions and the Philadelphia and Erie and Northern Central Railroads were located nearly all the anthracite coal-lands owned or controlled by the coal companies allied in interest with the PRR, and on these Divisions by far the largest part of the anthracite tonnage moved over the PRR was mined, weighed, and classified. The Sunbury Division served as the route for freight between the West and Northeastern New York and the New England States—the business consisting largely of the distribution of empty cars to and the collection of loaded cars from the different anthracite coal-breakers. The Sunbury Division, began at Sunbury and extended along the east bank of the North Branch of the Susquehanna River, reached the Wyoming Valley anthracite coal region, and found one terminus at Wilkes-Barre (the extent of the PRR's Sunbury Line when it was merged with the New York Central in 1968). At Catawissa, 20 miles from Sunbury, it departed the Susquehanna River, and formed a letter "Y" with the line to Wilkes-Barre; it ran in an easterly direction, gradually climbed the mountains until it reached Hazleton. It then began a rapid descent towards Pottsville where the Sunbury Division joined the Schuylkill Division. In this direction it traversed the rich anthracite coal-fields of parts of Luzerne and Schuylkill Counties, and connected at Derringer with the extensive coal operations of Coxe Bros & Co (Wilson 1895: 263-264).

This railroad is significant for its role in the development and growth of the Pennsylvania Anthracite region. While only a small connector line, this railroad brought together important shipping centers such as Sunbury, Wilkes-Barre, and larger cities further away on major connecting routes from these local shipping centers. Because of this historical association, this resource is recommended eligible for NRHP listing under Criterion A. No information could be located that identifies a connection between this resource and a significant individual in local or regional history. As such, this resource is recommended not eligible for NRHP listing under Criterion B. This railroad does not possess any unique or distinctive engineering features in the vicinity of the project area. Since this is only a small, single-track configuration with no architecturally significant associated structures or buildings (e.g., bridges, yards, depots, etc.), it is recommended not eligible for NRHP listing under Criterion C. The

recommended NRHP boundary of the Pennsylvania Railroad-Sunbury Line/Delaware & Hudson Railroad incorporates the Right-of-Way limits, including the ballast, ties, and track.

Table 16. Application of the Criteria of Effect to the Pennsylvania Railroad-Sunbury Line/Delaware & Hudson Railroad (155065)

Criteria of Effect	Evaluation
An undertaking shall be considered to have an effect on a National Register property or National Register-eligible property whenever any condition of the undertaking:	
(A) Causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural character that qualifies the property under the National Register Criteria.	(A) The Pennsylvania Railroad-Sunbury Line/Delaware & Hudson Railroad is considered NRHP-eligible under Criterion A. The proposed construction will not cause a change in the qualifying characteristics of the Historic Property.
(B) Changes the integrity of location, design, setting, materials, workmanship, feeling, or association of the property that contribute to its significance in accordance with the National Register criteria.	(B) The proposed construction will change the property's integrity of setting by introducing such visual effects as the cooling towers. However, the existing SSES cooling towers are presently visible from the resource.
(C) Changes (direct or indirect) in patterns of land use, population density, or growth rate that may affect properties of historical, architectural, archaeological, or cultural significance.	(C) The proposed construction will not introduce changes in land use patterns or demographics that may affect the Pennsylvania Railroad-Sunbury Line/ Delaware & Hudson Railroad.
Determination: The proposed action will have an Effect on the Pennsylvania Railroad-Sunbury Line/Delaware & Hudson Railroad.	

Table 17. Application of the Criteria of Adverse Effect to the Pennsylvania Railroad-Sunbury Line/ Delaware & Hudson Railroad (155065)

Criteria of Adverse Effect	Determination of Adverse Effect
Physical destruction of or damage to all or part of the property?	No Effect The proposed construction will occur outside the limits of the historic property boundary. No part of the proposed construction will cause destruction or damage to any part of the historic property.
Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access?	No Effect The proposed construction will not result in any alterations to the historic property. The proposed construction will not inhibit any current function of the property due to the considerable distance of the historic property to the proposed construction.
Removal of the property from its historic location?	No Effect The proposed construction will not cause the removal of any part of the historic property.
Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance?	No Effect The proposed construction will not alter the character of the historic property's use or its physical features within the property's setting. While the proposed construction will introduce such visual elements as cooling towers and steam clouds outside of the historic property's boundaries, these features will not change the use of the property or any of its physical features within the property's setting.

Criteria of Adverse Effect	Determination of Adverse Effect
Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features?	<p>No Adverse Effect</p> <p>While all the proposed construction will occur outside the limits of the historic property's boundary, the proposed cooling towers will be visible from the historic property. However, the integrity of setting and feeling has already been compromised due to the existing SSES cooling towers that are currently visible from the historic property. The existence of the current cooling towers pre-dates the NRHP eligibility of the Pennsylvania Railroad-Sunbury Line/Delaware & Hudson Railroad. The proposed construction will be adjacent to the existing facilities, and the additional visual impact will not diminish the significant features that qualify this resource for NRHP listing.</p>
Neglect of the property, which results in its demolition?	<p>No Effect</p> <p>The proposed construction will not result in neglect leading to demolition of any part of the historic property.</p>
Transfer, lease, or sale of property out of federal ownership or control?	<p>No Effect</p> <p>Since the Pennsylvania Railroad-Sunbury Line/ Delaware & Hudson Railroad is not federally owned or controlled, the proposed construction cannot result in the transfer, lease, or sale of any part of the property out of federal control.</p>
DETERMINATION	<p>The proposed construction will have No Adverse Effect on the Pennsylvania Railroad-Sunbury Line/ Delaware & Hudson Railroad. The existing cooling towers currently visible from the property predate the determination of NRHP eligibility, and the additional visual impact of a second set of cooling towers will not diminish the historic and architectural significance to a degree that the historic property no longer conveys its historic significance.</p>

Wapwallopen Historic District (155070)

The extant collection of buildings in Wapwallopen range from commercial and ecclesiastical to residential, and many are very well preserved. For the purposes of the current study, ten resources located along South River Street were defined as within the APE for the project. While these resources were inventoried and photographed, there remain a number of additional resources located outside the current study area that contribute to a collective historic district. The ten resources on South River Street date roughly from circa 1870 through circa 1900, and include representative examples of vernacular variants of several styles popular during the period, including Italianate, Gothic Revival, Queen Anne, Stick, and even Colonial Revival. While the wood frame residences typically exhibit meticulously-crafted woodwork, such as highly detailed spindlework, pedimented window moldings, and ornate brackets and corbels, some masonry buildings use unusual joinery and brick configurations in addition to fine woodwork. Overall, the resources located along South River Street maintain good integrity and clearly display much of the original craftsmanship employed in late 19th-century construction.

The Wapwallopen Historic District contains 94 resources. There are 77 contributing resources, and 17 non-contributing resources. Contributing resources include: two churches, a church bell, orchards, garages, single family dwellings, multiple family dwellings, a mill, and a fruit retailer (Heller Orchards). Non-contributing resources are buildings constructed in the recent past and after the historic district's period of significance.

Wapwallopen's early history begins with missionary contact with Delaware and Shawnee groups and later the arrival of agricultural pioneers. European missionaries visited native groups at Wapwallopen in 1744. At that time, John Martin Mack and Christian Fröhlich, Moravian missionaries, called the area Hallobanck. In 1748, John Martin Mack and David Zeisberger noted one family living there. Colonial land grants to tracts in the Wapwallopen area date from 1769. Early Euro-American settlers of German, Swiss, and Alsatian ancestry arrived from Northampton County, Pennsylvania. Nescopeck Township was formed in 1792 after the American Revolution. Local trade in agricultural products and merchandise utilized road networks that connected Wapwallopen to Easton and Philadelphia.

Residents established a school in Wapwallopen in 1808. Classes were taught in German. After 1811, Wapwallopen featured a grist mill, a sawmill, and a distillery. A ferry across the Susquehanna River connected Wapwallopen to Beach Haven, and later to the improved transportation networks of the canal and railroad on the opposite shore.

Wapwallopen's domestic economy remained agricultural in character throughout the nineteenth century until the duPont Powder Company recapitalized an existing powder works in 1859. Established in 1856, the Parrish, Silver & Company powder works operated a mill along Wapwallopen Creek until 1859, when bankruptcy forced a sale to the duPont Company. These powder companies profited from the anthracite industry's demand for blasting powder. The duPont Company closed the mill in 1912.

The multiple family dwellings in the Wapwallopen Historic District relate to the community's growth from the expansion of the powderworks by duPont. DuPont workers lived here during the powderworks operation. Life in Wapwallopen was closely related to the powderworks, and mill explosions frequently caused property damage.

The ten resources identified along South River Street contribute to an overall Wapwallopen Historic District. Considering the history of the town's development and its relatively self-contained nature, and based upon the well-preserved extant examples of architectural styles popular in the late 19th and early 20th centuries, the resources that comprise the potential Wapwallopen Historic District are collectively recommended eligible for NRHP listing under Criteria A and C. A list of recommended contributing resources, located within and outside the project APE, was provided in the letter from GAI to PHMC-BHP dated November 16, 2009. No information could be located that connects this potential historic district to any significant individuals; therefore, it is recommended not eligible for NRHP listing under Criterion B. The recommended NRHP boundary of the Wapwallopen Historic District includes the 77 contributing resources, and is bounded the north by the north side of South River Street, on the east by State Route 239, on the south by the south side of South Main Street, and on the west by South Main Street and South River Street, forming a generally triangular shape. The boundary was graphically depicted in GAI's November 16 letter to the PHMC-BHP.

Table 18. Application of the Criteria of Effect to the Wapwallopen Historic District (155070)

Criteria of Effect	Evaluation
An undertaking shall be considered to have an effect on a National Register property or National Register-eligible property whenever any condition of the undertaking:	
(A) Causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural character that qualifies the property under the National Register Criteria.	(A) The Wapwallopen Historic District is considered NRHP-eligible under Criteria A and C. The proposed construction will not cause a change in the qualifying characteristics of the historic property.
(B) Changes the integrity of location, design, setting, materials, workmanship, feeling, or association of the property that contribute to its significance in accordance with the National Register criteria.	(B) The proposed construction will change the district's integrity of setting by introducing such visual effects as the cooling towers.
(C) Changes (direct or indirect) in patterns of land use, population density, or growth rate that may affect properties of historical, architectural, archaeological, or cultural significance.	(C) The proposed construction will not introduce changes in land use patterns or demographics that may affect the Wapwallopen Historic District.
	Determination: The proposed action will have an <u>Effect</u> on the Wapwallopen Historic District.

Table 19. Application of the Criteria of Adverse Effect to the Wapwallopen Historic District (155070)

Criteria of Adverse Effect	Determination of Adverse Effect
Physical destruction of or damage to all or part of the property?	No Effect The proposed construction will occur outside the limits of this historic district boundary. No part of the proposed construction will cause destruction or damage to any part of the district.
Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access?	No Effect The proposed construction will not result in any alterations to the historic district. The proposed construction will not inhibit any current function of the district due to its considerable distance from the proposed construction.
Removal of the property from its historic location?	No Effect The proposed construction will not cause the removal of any part of the historic district.
Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance?	No Effect The proposed construction will not alter the character of the historic district's use or its physical features within its setting. While the proposed construction will introduce such visual elements as cooling towers outside of the historic district boundaries, these features will not change the use of the district or any of the physical features within its setting.
Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features?	No Adverse Effect While all the proposed construction will occur outside the limits of the historic district boundary, the proposed cooling towers will be visible from the district. However, the integrity of setting and feeling have already been compromised due to the existing SSES cooling towers that are currently visible from the district. The existence of the current cooling towers pre-dates the NRHP eligibility of the Wapwallopen Historic District. The proposed construction will be adjacent to the existing facilities, and the additional visual impact will not diminish the significant features that qualify this resource for NRHP listing.
Neglect of the property, which results in its demolition?	No Effect The proposed construction will not result in neglect leading to demolition of any part of the historic district.
Transfer, lease, or sale of property out of federal ownership or control?	No Effect Since the Wapwallopen Historic District is not federally owned or controlled, the proposed construction cannot result in the transfer, lease, or sale of any part of the district out of federal control.
DETERMINATION	The proposed construction will have No Adverse Effect on the Wapwallopen Historic District. The existing cooling towers and transmission lines currently visible from the property predate the determination of NRHP eligibility, and the additional visual impact of a second set of cooling towers will not diminish the historic and architectural significance to a degree that the historic district no longer conveys its historic significance.

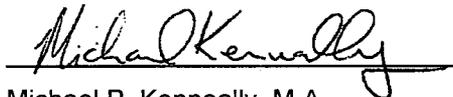
Summary

In accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, the Criteria of Adverse Effect were applied to the nine recommended NRHP-eligible historic resources: North Branch Pennsylvania Canal (141673), Union Reformed and Lutheran Church (155049), Woodcrest (155052), The Bloomsburg Division of the Delaware, Lackawanna, & Western Railway (155053), Stone Arch Bridge (155054), North Market Street Bridge (155055), Red Brick Studios (155064), Pennsylvania Railroad-Sunbury Line/Delaware & Hudson Railroad (155065), and Wapwallopen Historic District (155070) located within the project APE. Following careful study of the

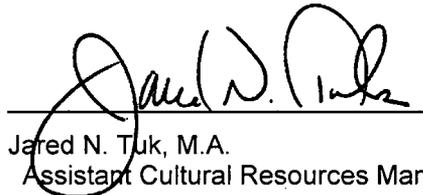
proposed project and its relationship to the identified historic resources, the proposed project will have No Adverse Effect on any of the nine NRHP-eligible resources located within the APE. The existing SSES structures are visible from all of the nine recommended NRHP-eligible resources. The visual impact of the existing SSES structures does not compromise the historic integrity of the nine recommended NRHP-eligible resources to a degree that prohibits them from being eligible for NRHP listing. Furthermore, the addition of similar visual elements, located directly adjacent to the existing structures, would not compromise the historic integrity of the nine recommended NRHP-eligible historic resources to an extent that would diminish their NRHP-eligibility.

Seven of the nine recommended NRHP-eligible resources: Union Reformed and Lutheran Church (155049), Woodcrest (155052), Stone Arch Bridge (155054), North Market Street Bridge (155055), Red Brick Studios (155064), Pennsylvania Railroad-Sunbury Line/Delaware & Hudson Railroad (155065), and Wapwallopen Historic District (155070) are located outside of the proposed construction boundaries and the proposed project will only introduce visual elements to these resources. Two of the nine recommended NRHP-eligible historic resources: North Branch Pennsylvania Canal (141673) and The Bloomsburg Division of the Delaware, Lackawanna, & Western Railway (155053) are located within the area of proposed construction. Based on current design plans provided to GAI, the proposed construction activity occurring within the boundaries of these historic resources consists of underground piping that runs from the proposed intake structure on the banks of the Susquehanna River to the proposed water treatment plant on the BBNPP site, and will not require the physical destruction or alteration of the historic properties. As noted previously, if no physical destruction, damage, or alteration to the North Branch Pennsylvania Canal (141673) or The Bloomsburg Division of the Delaware, Lackawanna, & Western Railway (155053) occurs as a result of the proposed construction, GAI recommends that the proposed project would result in No Adverse Effect to historic resources.

Sincerely,
GAI Consultants, Inc.



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