
**U.S. Department of the Interior
National Park Service**

**Appalachian National Scenic Trail
Delaware Water Gap National Recreation Area
Middle Delaware National Scenic and Recreational River
Pennsylvania and New Jersey**

**Susquehanna to Roseland 500-kV Transmission Line Right-of-Way and Special Use Permit
Environmental Impact Statement**

Record of Decision

Approved:

Dennis R. Reidenbach

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Regional Director, Northeast Region

Date: 10/1/2012

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

RECORD OF DECISION

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AND SPECIAL USE PERMIT ENVIRONMENTAL IMPACT STATEMENT**

APPALACHIAN NATIONAL SCENIC TRAIL, DELAWARE WATER GAP NATIONAL RECREATION AREA,
MIDDLE DELAWARE NATIONAL SCENIC AND RECREATIONAL RIVER
PENNSYLVANIA AND NEW JERSEY

INTRODUCTION

The Department of the Interior, National Park Service (NPS), has prepared this Record of Decision (ROD) for the *Susquehanna to Roseland 500-kV Transmission Line Right-of-Way and Special Use Permit Environmental Impact Statement* (EIS) for Appalachian National Scenic Trail (APPA), Delaware Water Gap National Recreation Area (DEWA), and Middle Delaware National Scenic and Recreational River (MDSR) in Pennsylvania and New Jersey. This ROD states what the decision is, identifies the other alternatives considered, identifies the environmentally preferable alternative, discusses the basis for the decision, lists measures to minimize and/or mitigate environmental harm, and briefly describes public and agency involvement in the decision-making process. The Non-Impairment Determination and final Statement of Findings (SOF) for wetlands and floodplains for the selected action are attached to this ROD. The ROD also concludes the NPS's responsibilities under Section 106 of the National Historic Preservation Act, and its implementing regulations at 36 CFR 800.8, by committing to the mitigation of adverse effects to historic properties.

PROJECT BACKGROUND

In 2007, the regional transmission operator, PJM Interconnection (PJM), identified a 500-kV transmission line between the Susquehanna Substation in Pennsylvania and the Roseland Substation in New Jersey as the preferred and most effective solution for reliability violations forecasted as part of the Federal Energy Regulatory Commission-approved Regional Transmission Expansion Plan (RTEP) process. Responding to this assessment, the applicant proposed to construct a 500-kV transmission to connect the two substations on a route that included crossings of DEWA, APPA, and MDSR.

PPL Electric Utilities Corporation (PPL) and Public Service Electric and Gas Company (PSE&G), jointly known as the applicant, applied for a permit to allow the construction, maintenance, and operation of the Susquehanna to Roseland line (S-R Line) across three units of the national park system, the expansion of the existing right-of-way (ROW), and the replacement of an existing 230-kV transmission line it owns. The existing 230-kV transmission line runs from the Bushkill substation to the Kittatinny substation (B-K Line), crossing DEWA, APPA, and MDSR. It also crosses a small panhandle of DEWA en route to and northwest of the Bushkill Station. The B-K Line towers are approximately 80 feet in height and the deeded ROW varies from 100 to 380 feet in width through the parks. The applicant proposes to replace the B-K Line towers with new towers up to 195 feet tall, install an additional circuit (the S-R Line), and widen the ROW to accommodate these new facilities. The new replacement B-K Line will be capable of carrying 500-kV, though it would be initially energized at only 230-kV. The applicant's proposal includes both the construction of the S-R Line and the replacement of the B-K Line as part of the project. References in this document to "the line" refer to both lines and the single set of towers they share.

The applicant's purpose for the proposed S-R Line is to strengthen the reliability of the grid at the direction of the regional transmission operator, PJM. PJM oversees the overall movement of wholesale electricity between many electric utilities in all or parts of 13 states and the District of Columbia. The PJM 2007 load forecast model identified 23 projected grid reliability criteria violations starting in 2012. PJM advised that an upgrade to this line would aid in resolving several violations and issues related to reliability and congestion. The need for the proposed S-R Line has been expressed several times by PJM in planning documents. PJM's Regional Transmission Expansion Plans from 2007 to 2010 have identified the proposed S-R Line as an important project on what was termed by PJM as a "backbone" line. The North American Electric Reliability Corporation (NERC) also identified the proposed S-R Line as a "backbone," while the applicant has repeatedly noted the need for and importance of increased electrical transmission capacity between Berwick, Pennsylvania and Roseland, New Jersey. If constructed, the new S-R Line would make the current transmission line corridor an even more important link in the regional grid than it is now. The two new lines proposed would require a much higher level of access roads and activity to monitor and maintain.

The Pennsylvania Public Utility Commission (PAPUC) and the New Jersey Board of Public Utilities (NJBPU) have approved the S-R Line, although the approval included conditions and the NJBPU decision is being challenged in court.

Whether there is a need for the proposed S-R Line project is not for the NPS to decide, nor is it a factor in the preparation of the EIS; that question is within the purview of the PAPUC and NJBPU. The NPS prepared an EIS to determine whether to grant or deny the applicant's request for a construction and ROW permit within NPS lands.

DECISION (SELECTED ACTION)

The National Park Service will implement alternative 2, which was identified as the agency's preferred alternative in the *Susquehanna to Roseland 500-kV Transmission Line Right-of-Way and Special Use Permit Final EIS*, with mitigation as described herein. The complete description of the selected alternative can be found in Chapter 2 of the final EIS in the following sections: *Description of the Alternatives*, *Elements Common to All Action Alternatives*, and *Alternative 2: Applicant's Proposed Route*. A summary of the key points of the selected alternative is provided below.

Under the selected alternative, the NPS will take final agency action when it issues a permit to grant a ROW and construction permit to PSEG and PPL for the expansion of the B-K Line to a new double-circuit line through NPS lands in accordance with this decision. The selected alternative will include the installation of a double-circuit 500-kV transmission line (consisting of new towers and conductors) and associated telecommunications infrastructure. Two static lightning and communications fiber lines will be installed on top of the structures; these lines, respectively, will protect the transmission lines from electrical interruptions and will serve as a communication link between existing substations. This telecommunications infrastructure will not be highly visible, and will not include cell towers. Telecommunications infrastructure will only be used for electrical transmission purposes and will not be sold to a third party.

Existing structures in the B-K Line ROW between the Bushkill Substation and the eastern boundary of DEWA will be removed. Removal of the existing B-K line will require the removal of vegetation to permit the construction of spur roads to allow equipment access.

Spur roads will be 20 feet wide and will be surfaced with compacted dirt or gravel. Grading will occur to backfill over the existing tower foundations, counterpoises, and ground wires, to create a natural cover. Crane pads, approximately 200 feet by 200 feet will be constructed to provide a safe, level pad for large

cranes to mobilize, set outriggers, and aid in the removal of transmission line towers. Wire pulling locations, approximately 200 feet by 200 feet, will be used for coiling conductors after they have been cut. Lattice towers will be disassembled at each tower location and placed on a tractor-trailer or hoisted by an air crane and shipped to a staging area for eventual recycling.

The route for the selected alternative follows the corridor of the B-K Line, which traverses approximately 4.3 miles of DEWA. Within DEWA boundaries, the route crosses MDSR and APPA approximately perpendicularly. Within the study area, the alternative 2 alignment is approximately 5.6 miles long. The alignment will enter DEWA from the west in Pennsylvania approximately 0.25 mile east of Big Bushkill Creek. The alignment will cross approximately 0.6 mile of DEWA land and then exit the park. In the next approximately 0.68-mile section of the study area, the alignment will travel to the Bushkill Substation, cross a small (0.06-mile) portion of DEWA, cross the Fernwood Golf Course, and then reenter DEWA south of the South Zone Ranger Station and north of DEWA Headquarters. The alignment will travel southeast within DEWA for approximately 0.85 mile, then cross 0.10 mile of MDSR just north of Depew Island. The route will continue southeast approximately 2.4 miles past the Watergate Recreation Site and cross APPA. The route will then traverse another 0.25 mile from APPA to the eastern DEWA boundary. Beyond the boundary, the alignment will travel southeast approximately 0.7 mile to a Visual Split Location (VSL) which was used in the EIS to identify the geographical point outside the parks at which it becomes physically possible for the applicant to route the line as it sees fit.

The width of the existing B-K Line ROW ranges from 100 to 380 feet in Pennsylvania and New Jersey; however, the ROW is only cleared to a width between approximately 80 and 150 feet. In the FEIS, this alternative was analyzed assuming it would require clearing of vegetation for an additional 50 to 200 feet of ROW. To avoid and reduce impacts caused by clearing and construction activities, the applicant has agreed to limit clearing of the ROW and construction activities to no more than 200 feet, with clearing limited to 150 feet in some areas. The area to be cleared is specified in the Statement of Findings, Attachment B of this ROD.

Low impact tree clearing will be used to remove vegetation from the proposed ROW. Trees will be cut close to the ground, and stumps and root systems will be left in place to provide additional soil stability. A 50-foot buffer will be used near intermittent streams and wetlands and a 100-foot buffer near perennial streams.

Alternative 2 will require new access roads, because old trails and roadbeds on which the access roads are based are overgrown and will not allow access by large vehicles. Generally, access roads will fall within the transmission line ROW, but in some instances, it will be necessary for access roads to extend outside the ROW. Alternative 2 will require a total of 5.3 miles of access roads, 1.9 miles of which will be outside the ROW (1.5 miles in Pennsylvania and 0.4 mile in New Jersey). Access roads will initially be 20 feet wide to accommodate large construction vehicles. Following construction, access roads will be narrowed to 15 feet wide and will continue to be used for maintenance and vegetation management for the line. Access roads will be composed of gravel or compacted dirt.

Crane pads will be used for assembly and erection at each new tower location. Crane pad sites will be graded or cleared to provide a reasonably level pad free of any vegetation that could hinder tower construction. Some tower sites will require grading either to widen the pads from the existing structures or to create new pads, while other sites will be on relatively level areas that will only require some vegetation removal. At locations with steep topography, extensive excavation may be required to create a level pad. New towers will be constructed on a concrete foundation. Foundation dimensions will depend on topography, tower height, span length, and soil properties; however, tower foundations will generally extend below grade for 15 to 30 feet or more, with a diameter of 6 to 9 feet. On average, a typical

concrete foundation will extend approximately 3 feet above ground level. If monopoles are feasible, they will be used. If monopoles are not feasible for these structures, it may be necessary to use lattice towers.

Wire installation includes all activities associated with the installation of conductor wire onto the new towers, such as the installation of primary conductor and ground wire, vibration dampeners, weights, spacers, and suspension and dead-end hardware assemblies. For stringing equipment that cannot be positioned at either side of a dead-end transmission tower, anchoring and dead-end hardware will be temporarily installed to sag conductor wire to the correct tension. Wire-stringing activities would be conducted as described in Institute of Electrical and Electronics Engineers Standard 524-1992, Guide to the Installation of Overhead Transmission Line Conductors.

Construction of transmission facilities will also consist of the establishment of staging yards for construction materials and equipment, completion of any roadwork, and removal of the B-K Line that currently crosses the parks. Staging yards for materials and equipment will be approximately 3 to 4 acres each. Efforts will be made to locate staging areas on previously disturbed property, abandoned excavations, or abandoned parking areas. Construction activities will last for approximately 8 months.

Maintenance of the S-R Line will be performed on an as-needed basis, but is expected to occur at least once annually, and will include maintenance of access roads and erosion/drainage control structures. Maintenance of vegetation will be performed by the applicant. NPS will require an NPS-specific, NPS-approved vegetation management plan.

MITIGATION MEASURES/MONITORING

Mitigation measures will be implemented to minimize the impacts on resources from construction, operation, and maintenance activities. The NPS will also establish mechanisms to ensure that all mitigation obligations are met, mitigation measures are monitored for effectiveness, and unsuccessful mitigation is quickly remedied. In instances where impacts cannot be avoided and other mitigation is not feasible, compensation for resources lost or degraded through project construction, operation, and maintenance will be required. Examples of items that cannot be directly remedied through other mitigation include impacts that degrade the scenic and other intrinsic values of the parks or impacts that result in the loss of recreational use and visitor enjoyment. Compensation will be used to mitigate these items by improving the stewardship of other natural, cultural, scenic, and recreational resources similar to those impacted.

The NPS will require the applicant to follow certain Best Management Practices (BMPs)/mitigation measures for the selected alternative. Mitigation measures and BMPs specific to the impact topics, where applicable, are presented below. Mitigation measures are identified as BMPs NPS will require during construction and measures NPS will require over the life of the project. Compensatory mitigation measures are required for certain resources and are identified as applicable.

Geology

BMPs NPS will require to Avoid and Minimize Impacts during Construction:

- Submit a detailed drilling plan for NPS review and approval for all drilling activities prior to drilling and construction activities.
- Complete geotechnical boring before construction to determine the appropriate depth needed to remove soils and weathered bedrock before reaching sound material where substantial excavation will occur. This will reduce the impacts of drilling in unstable material.

- Haul all tailings from geotechnical borings and drillings offsite, unless the NPS determines that there is a park need for the tailings.
- Use excavated rock as substrate for the access roads.
- Complete a preconstruction surface assessment prior to disturbance. Work will be completed by a qualified geologist. If any paleontological resources are found, they will be avoided. If the resources are unavoidable, they will be collected and properly cared for before the start of construction. Any paleontological resources collected will be properly documented and turned over to the park.
- Monitor areas with potential paleontological resources during construction activities.
- NPS will analyze or approve any water sources for drilling operations.

Measure the NPS will require that will Avoid and Minimize Impacts over the Life of the Project:

- Develop a buffer zone around areas of sensitive geologic resources. No activities will occur within the buffer zone. This buffer zone will protect these areas from drilling and excavation activities, limiting impacts.

Water and Soil Resources

BMPs NPS will require to Avoid and Minimize Impacts during Construction:

- Prepare a spill prevention and response plan (SPRP) to reduce impacts on surface water, ground water, and aquatic species if equipment leaks or hazardous spills occur. The goal of the plan is to minimize the potential for a spill, contain any spillage to the smallest area possible, and to protect environmentally sensitive areas, including streams, rivers, and wetlands. The SPRP will include the following:
 - Procedures for fuel storage location, fueling activities, and construction equipment maintenance.
 - Lines of communication to facilitate the prevention, response, containment, and cleanup of spills during construction activities.
- Construct spur roads using geotextile fabric and stone, which will be removed at the conclusion of construction and will be revegetated using park approved species or seed mixes.
- Inspect potential erosion areas weekly. Additionally inspect potential erosion areas immediately after storm events. The applicant will smooth out ruts and spread gravel to stabilize the roadway and prevent erosion.
- Implement erosion control methods, such as silt fences during and after construction to reduce impacts of increased soil runoff on water resources. By retaining soil on-site, sediment and attached nutrients are prevented from leaving disturbed areas and polluting streams. The use of BMPs is estimated to reduce total suspended solids (TSS) by 40 percent, total nitrogen by 25 percent, and total phosphorus by 40 percent (Baldwin n.d., 1).
- Drill during winter months (when not in areas with known snake dens) to reduce impacts of drilling on aquatic communities. Winter is when the least number of aquatic species and individuals are present in nearby water bodies.

Measures the NPS will require that will Avoid and Minimize Impacts over the Life of the Project:

- Construct access roads with a gravel surface that is semipermeable to reduce the amount of stormwater runoff. A reduction in sheet flow will decrease the amount of sedimentation, total

suspended soils, contaminants, nutrients, and turbidity in surface waters and impacts on aquatic species.

- Construct road grades and alignments to follow the contour of the land with smooth, gradual curves; this will reduce the runoff potential of soils along the access roads outside the ROW.
- Develop and implement soil and erosion control plans as mandated in state permits for Pennsylvania Department of Environmental Protection (PADEP) and New Jersey Department of Environmental Protection (NJDEP).
- Use only those herbicides approved by the NPS for aquatic environments for removal of vegetation.
- Establish a 150-foot buffer near intermittent or perennial streams and wetlands. No activities will occur within the buffer. The buffer will reduce impacts on water quality and aquatic species.

Floodplains

Required mitigation measures are described in detail in the SOF, Attachment B of this ROD. All mitigation measures identified in the SOF are hereby incorporated by reference as mitigation measures required by this ROD.

Wetlands

Required mitigation measures are described in detail in the SOF, Attachment B of this ROD. All mitigation measures identified in the SOF are hereby incorporated by reference as mitigation measures required by this ROD.

Vegetation

BMPs NPS will require to Avoid and Minimize Impacts during Construction:

- Promptly seed areas disturbed during construction of the transmission line with a conservation mix approved by NPS, and monitor these areas for the spread of invasive plant species.
- All areas where vegetation is to be removed will be clearly delineated and NPS approval of the limits of vegetation clearing will be obtained prior to any action taking place.
- Minimize disturbance to native plant species during construction to prevent the spread of non-native species.
- Clean equipment after leaving areas where invasive species are known to occur and before entering sensitive areas.
- Use construction materials (e.g., gravel) from sources that have been inspected and found to be free of invasive species and approved by NPS.
- Use timber mats during construction in areas outside the access roads to minimize soil compaction.

Measures the NPS will require that will Avoid and Minimize Impacts over the Life of the Project:

- Develop and implement an NPS-approved, long-term, park-specific vegetation management plan for the operation and maintenance of the line. Separate vegetation management plans are needed from PSE&G and PPL. These plans will focus on retaining habitat within the constraints of the North American Electric Reliability Corporation (NERC) guidelines, and the control of invasive species. These plans will address invasive species management, including early detection, monitoring, and treatment for target invasive species using an integrated pest management approach. Additionally, an invasive species management plan will address the possible spread of invasive species via wooden spools used to supply wire. Other topics in the vegetation

management plan will include vegetation restoration (native seeding and plantings, with annual monitoring and re-treatment as needed to achieve minimum acceptable outcomes, including an increase in biodiversity); management of sensitive species and sensitive habitats during routine maintenance; management of the ROW vegetation that will increase habitat for scrub shrub species; the use of best management practices to include restrictions on use of machinery and equipment time-of-year restrictions on vegetation in sensitive areas; pre-approval by NPS on pesticide and herbicide use; and off-site compensation. The vegetation management plan will also include an equipment cleaning plan that will address techniques for removal of any invasive seed sources prior to entering the parks.

- Use existing roads with minimal development of new access roads.
- Require that maintenance crews enter the ROW on foot and use handheld equipment for vegetation maintenance in sensitive areas.
- Clean equipment after leaving areas where invasive species are known to occur and before entering sensitive areas.
- All woody vegetation (including chips) will be removed from the parks unless instructed otherwise by NPS staff.
- Complete measures for the annual suppression of invasive plants within the ROW for the life of the project.

Landscape Connectivity, Wildlife Habitat, and Wildlife

BMPs NPS will require to Avoid and Minimize Impacts during Construction:

- Consult with NPS on deposition of brush piles. Where approved by NPS, leave brush piles alongside the ROW to provide habitat for wildlife species following the clearing of vegetation.
- Remove spur roads following construction and maintain the ROW to provide bird habitat.
- Vegetation clearing will occur outside the breeding season of migratory birds to reduce the likelihood of disturbing nesting birds.
- The applicant will avoid take and minimize disturbance to eagles during construction and operation of the line.
- Construction within 660 feet of any important eagle use area (breeding, foraging or roosting) will be completed outside the season of use.
- Loud and disruptive impacts such as pile driving or blasting will not occur within one-half mile of an important eagle use area during the season of use.

Measures the NPS will require that will Avoid and Minimize Impacts over the Life of the Project:

- Impose a seasonal restriction on maintenance activities from March 15 through July 31 to prevent unauthorized take of nests and unfledged chicks protected under the Migratory Bird Treaty Act (MBTA). An avian protection plan (APP) will be developed and will be a condition of the applicant's permit.
- Impose a seasonal restriction on maintenance activities in March and April in areas of known amphibian migration to prevent direct mortality of spring peepers, wood frogs, spotted salamanders, red spotted newts, and Jefferson salamanders.
- Consult with NPS on deposition of brush piles. Where approved by NPS, leave brush piles alongside the ROW to provide habitat for a variety of wildlife species following the clearing of vegetation.

- The applicant will submit an application to FWS for a permit to cover the applicant's liability under the BGEPA.
- Diverters will be placed on the shield or static wire from the bank of the Delaware River on the New Jersey side of the line, to the top of the Hogback Ridge in Pennsylvania. Diverters suggested for use by the USFWS are yellow, coiled-PVC avian flight diverters or flapper diverters placed at roughly 50-foot intervals on the shield wire with communications wire to increase the visibility of the line within the Kittatinny Ridge Migratory Corridor.
- Tower lighting will only be permitted on the four towers where recommended by FAA, and only via AVWS system, such that lighting is only triggered by the approach of aircraft, minimizing the amount of time towers will be lit.

Special-Status Species

BMPs NPS will require to Avoid and Minimize Impacts during Construction:

- Obtain a qualified biologist to conduct preconstruction surveys before any ground-disturbing or vegetation clearing activities. Surveys will be to determine the presence of special-status species, habitat, nests, dens, and new hibernacula, and to determine if relocation will be an appropriate mitigation measure for any species found. Some species such as reptiles, amphibians, and mussels could be collected and relocated prior to or during construction activities, if this is found to be beneficial or appropriate to the species found at the site. If relocation is undertaken, a plan for the relocation of special-status species will be designed in consultation with the appropriate federal and state agencies and a qualified and permitted biologist will collect and relocate individuals to nearby suitable habitat. Preconstruction surveys are particularly important because construction may not occur for some time following the completion of the NEPA process and special-status species could begin using habitat between site surveys and construction activity. If special-status species, nests, dens, or habitats are found, then consultation measures will be developed and implemented in consultation with state and federal regulatory agencies.
- Develop and implement (by recognized and qualified zoologists including individuals certified by the U.S. Fish and Wildlife Service or state conservation agencies and approved by NPS) species-specific conservation and mitigation plans if special-status wildlife species or occupied habitat cannot be avoided. These individuals will complete on-site monitoring. The plans will include:
 - Conservation measures, such as time-of-year restrictions.
 - Pre-construction surveys.
 - Construction monitoring.
 - Habitat preservation and habitat restoration components.
 - Post-construction monitoring as needed.
- Ensure that park staff, their representatives, or representatives from appropriate state or federal agencies who are experienced in managing or monitoring special-status species are on site to monitor for special-status species during the construction activities to verify that special-status species are not in the active construction area.
- Implement road closures and/or patrols prior to and during construction activities at locations where it was deemed effective.
- Install barrier fencing along streams to keep wood turtles from entering construction sites.
- Implement seasonal restrictions to reduce impacts on special-status species. Seasonal restrictions will be site-specific, based on species present and their use of the site and include the following:

- Seasonal restrictions on vegetation clearing from March 15 through July 31 will prevent the unauthorized take of nests and unfledged chicks of birds protected by the MBTA (USFWS 2010). This seasonal restriction will protect the majority of the special-status bird fledglings that may occur in the study areas for each alternative. Therefore, the permanent and seasonal resident nesting special-status bird species will not be forced to abandon nests or young, because vegetation clearing will not occur during the nesting season; no direct mortality of eggs, young, or adults will occur as a result.
- Seasonal restrictions for disturbance of bald eagles will include a restriction within 1,000 feet of bald eagle nests between December 15 and August 31, the bald eagle nesting period. This restriction is recommended in the Bald Eagle Guidelines (USFWS 2007).
- Seasonal restrictions for tree clearing and construction will be implemented from December 15 to March 31 in the vicinity of bald eagle roosts.
- To prevent cutting of potential roost trees for the Indiana bat, a season restriction from April 1 through September 30, which includes the restriction of cutting trees with a diameter at breast height (DBH) greater than 8.7 inches will be implemented.
- A seasonal restriction from April 1 through October 31 preventing the cutting of all trees or snags with a DBH greater than 5 inches will be implemented to avoid potential impacts on northern myotis and other tree-roosting bats.
- Seasonal restrictions on project activities will be implemented in venomous snake basking, birthing, and foraging habitat during the active season. Safe dates for project activities span from November 1 through March 31. Further timing restrictions for drilling and excavation activities will be required in the vicinity of overwintering dens.
- Seasonal restrictions for neotropical birds and bats will also benefit nesting and birthing reptile species in the spring and summer.
- Seasonal restrictions will be implemented on project activities in wood turtle foraging habitat during the active season. Safe dates for project activities are November 15 through March 31.
- Seasonal restrictions on project activities in bog turtle wetlands and 300-foot buffer during active season will be implemented. Safe dates for project activities are November 1 through March 31.

Measures the NPS will require that will Avoid and Minimize Impacts over the Life of the Project:

- Develop and implement NPS-approved, long-term, park-specific vegetation management plans for the operation and maintenance of the line. Separate vegetation management plans are needed for both from PSE&G and PPL. These plans will help reduce impacts to special-status species and the habitats they utilize.
- Provide construction plans (as described in the general Construction and Restoration Plan) for each set of construction activities in order to facilitate modification of construction activities that may adversely impact areas that support special-status species.
- The applicant will submit an application to FWS for a permit to cover the applicant's liability under the BGEPA.
- The applicant will either conduct monitoring or will provide NPS the funding to conduct monitoring in the vicinity of the line during construction and operation of the line in order to determine the level of hazard to eagles. If the likelihood of take is determined to be low, the standard permit will not require renewal, and the operation of the line will be consistent with BGEPA. If the monitoring suggests that take is likely to occur, the applicant will initiate the

development of a programmatic permit to cover their liability during the operational life of the line.

- Consult with appropriate federal and state agencies if special-status plant populations cannot be avoided, depending on the listing status of the species present. These consultations will determine appropriate mitigation measures for any populations affected by the proposed project. Appropriate measures could include the creation of offsite populations through seed collection or transplanting, preservation, and enhancement of existing populations, or restoration or creation of suitable habitat in sufficient quantities to compensate for the impact.
 - Translocation includes digging up plants and moving them to appropriate portions of the corridor that will not be affected by the proposed construction activities.
 - Seeds can also be collected from plants that will be removed and either planted directly or germinated in a nursery and then planted in appropriate locations.
- Develop and implement (by recognized and qualified zoologists including individuals certified by the U.S. Fish and Wildlife Service or state conservation agencies) species-specific conservation and mitigation plans if special-status wildlife species or occupied habitat cannot be avoided. These individuals will complete on-site monitoring. The plans will include:
 - Conservation measures, such as time-of-year restrictions.
 - Pre-construction surveys.
 - Construction monitoring.
 - Habitat preservation and habitat restoration components.
 - Post-construction monitoring as needed.
- Complete an APP in accordance with the Bald Eagle Guidelines (USFWS 2007) and APLIC standards.
 - The APP will include elements that provide for training for all utility and contractor personnel on compliance with applicable regulations, procedures to be implemented for avoidance and minimization of disturbance, reporting bird mortality, required permits, accepted construction standards for reducing bird impacts, methodology for evaluation of risks to migratory birds, opportunities for enhancement of bird populations or habitat, public awareness and education, and identification of key resources.
 - The standards described in APLIC (1994) will be followed and will also comply with the *APLIC Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC 2006).
 - Proposed construction and maintenance activities will follow and adhere to the Bald Eagle Guidelines (USFWS 2007), which will minimize the potential for “take” on the bald eagle.
 - To reduce impacts on birds from collisions with the transmission line, the APP (PSE&G 2010) will be written in compliance with APLIC standards and will use the current best available technologies.
- Continue to identify and control invasive plant species through the applicant’s invasive plant management plans. In addition, an aggressive invasive plant management plan developed and implemented by the applicant will include ongoing monitoring and treatment.
- Close access roads to the public to reduce the impacts of illegal collection. It has been demonstrated by Garber and Burger (1995, at 1152 and 1158) that when formerly intact, undisturbed, forested areas are opened to human recreation, the extinction of special-status

species can occur in that particular area. Rare species, especially plants and small reptiles and amphibians, are vulnerable to illegal collecting, and even small numbers collected annually for a number of years could jeopardize the local population.

- NPS law enforcement will monitor visitor activities in these areas, including the use of remote surveillance to assess the need for and effectiveness of area closures. There will be an increase in patrols along the access roads and any new ROW. Existing and proposed new access roads, especially access roads, could act as an attractive nuisance and/or recreation opportunity, by inviting visitors to areas inhabited by rare species and increasing visitor encounters with these species.
- NPS law enforcement and resource staff will monitor closed areas for invasive species, vegetation, wildlife, and erosion, and the presence of park staff may dissuade visitors from entering these illegal areas.
- Implement seasonal restrictions to reduce impacts on special-status species. Seasonal restrictions will be site-specific, based on species present and their use of the site and include the following:
 - Seasonal restrictions on vegetation clearing from March 15 through July 31 will prevent the unauthorized take of nests and unfledged chicks of birds protected by the MBTA (USFWS 2010). This seasonal restriction will protect the majority of the special-status bird fledglings that may occur in the study areas for each alternative. Therefore, the permanent and seasonal resident nesting special-status bird species will not be forced to abandon nests or young, because vegetation clearing will not occur during the nesting season; no direct mortality of eggs, young, or adults will occur as a result.
 - Seasonal restrictions for disturbance of bald eagles will include a restriction within 1,000 feet of bald eagle nests between December 15 and August 31, the bald eagle nesting period. This restriction is recommended in the Bald Eagle Guidelines (USFWS 2007).
 - Seasonal restrictions for tree clearing and construction will be implemented from December 15 to March 31 in the vicinity of bald eagle roosts.
 - To prevent cutting of potential roost trees for the Indiana bat, a season restriction from April 1 through September 30, which includes the restriction of cutting trees with a diameter at breast height (DBH) greater than 8.7 inches, will be implemented.
 - A seasonal restriction from April 1 through October 31 preventing the cutting of all trees or snags with a DBH greater than 5 inches will be implemented to avoid potential impacts on northern myotis and other tree-roosting bats.
 - Seasonal restrictions on project activities will be implemented in venomous snake basking, birthing, and foraging habitat during the active season. Safe dates for project activities span from November 1 through March 31. Further timing restrictions for drilling and excavation activities will be required in the vicinity of overwintering dens.
 - Seasonal restrictions for Neotropical birds and bats will also benefit nesting and birthing reptile species in the spring and summer.
 - Seasonal restrictions will be implemented on project activities in wood turtle foraging habitat during the active season. Safe dates for project activities are November 15 through March 31.
 - Seasonal restrictions on project activities in bog turtle wetlands and 300-foot buffer during active season will be implemented. Safe dates for project activities are November 1 through March 31.

Measures to specifically protect bog turtles will be undertaken in accordance with the *Bog Turtle (Clemmys muhlenbergii) Northern Population Recovery Plan* (USFWS 2001), and the bog turtle conservation zones presented in the “Special-status Species” section of chapter 3 of the final EIS. These actions will be undertaken where appropriate as mitigation measures. Future coordination with appropriate federal and state agencies will clarify the extent to which adverse effects to the bog turtle will be likely to occur and will determine whether a biological assessment (BA) will be required. Other conservation and/or mitigation measures to protect the bog turtle suggested by the Recovery Plan include the restoration of disrupted wetland hydrology, the control of invasive species, reconnection of fragmented habitat, population monitoring, and protection of nests from collection and predation (USFWS 2001).

Cultural Resources

Mitigation measures for cultural resources are described in the Section 106 discussion, below, and are incorporated by reference.

Infrastructure, Access and Circulation

BMPs NPS will require to Avoid and Minimize Impacts during Construction:

Prior to construction activities, the applicant will complete the following:

- Develop a construction staging plan with NPS.
- Develop a traffic control plan in conjunction with NPS.
- Work with NPS to develop a plan for the control of unauthorized public access and use on NPS lands that could result from the proposed project. The agreement will address various provisions related to unauthorized access, such as the following:
 - Additional measures to be taken to discourage unauthorized use of the project corridor and associated access roads.
 - Periodic inspection for unauthorized access and any resulting damage.
 - Repair of any damage from unauthorized access.
- Develop a media strategy/notification plan as a means to notify local residents, businesses, and officials of closures and changes in traffic patterns.
- Develop an off-highway vehicle / all-terrain vehicle (OHV/ATV) deterrent plan prior to construction activities.

During construction activities:

- Design and construct new access roads to minimize runoff and soil erosion.
- Install gates at the entrances to access roads to reduce unauthorized use; coordinate gate locks with NPS.
- Restore public roadways to their pre-construction conditions or better upon completion of project construction activities.
- Reclaim any road-related disturbance areas after construction is completed.
- Permanently close and revegetate spur roads to discourage OHV/ATV use. For roads still in use, restrict access by unauthorized users as identified in the OHV/ATV deterrent plan.

Visual Resources

BMPs NPS will require to Avoid and Minimize Impacts during Construction:

During construction activities:

- Restrict construction vehicle movement outside the ROW to NPS-approved routes. Should additional road access be required, permission be sought from the NPS prior to disturbance, and appropriate remuneration fees will be assessed.
- Keep areas around the towers clean and free of debris.
- Maintain a clean construction site and remove all related equipment, materials, and litter following construction.
- Revegetate disturbed areas with approved species.
- Provide regular maintenance of access roads and fences within and leading to the corridor.
- Cut stumps close to ground.
- Implement “low-impact tree clearing” which involves directional tree-felling, both mechanically and by hand.
- Rehabilitate or restore disturbed areas, as applicable.

Measures the NPS will require that will Avoid and Minimize Impacts over the Life of the Project:

During Project Design several mitigation measures will be undertaken. It should be noted that, in some cases, visual resource mitigation measures may directly contradict mitigation measures under APLIC that make the lines more visible to birds in order to decrease bird collisions and electrocutions; in these cases, the APLIC guidelines will prevail:

- Locate new access roads within previously disturbed areas.
- Route the alignment of new access roads to follow landform contours where practicable, providing that such alignment does not impact additional resource values, to minimize ground disturbance and/or reduce scarring (visual contrast) of the landscape.
- Place structures in designated areas so as to avoid sensitive features such as, but not limited to, riparian areas, water courses, and cultural sites, and/or to allow conductors to clearly span the features, within limits of standard tower design. If the sensitive features cannot be completely avoided, towers will be placed so as to minimize the disturbance.
- Place tower structures at the maximum feasible distance from roadway and trail crossings, and where preservation of existing vista(s) is particularly important. Distances will be within the limits of standard tower structure design.
- Use non-reflective neutral colored paints and coatings approved by the NPS to reduce reflection, glare, and/or contrast on structures.
- Use non-reflective insulators (i.e., non-ceramic or porcelain).
- Use non-specular conductors to reduce reflectivity.
- Locate construction staging areas away from visually sensitive locations.
- Conceptual landscaping in the form of vegetation planted outside but along the utility ROW.

- Tower lighting will only be permitted on the four towers where recommended by FAA, and only via AVWS system, such that lighting is only triggered by the approach of aircraft, minimizing the amount of time towers will be lit.

During maintenance activities:

- Restrict construction vehicle movement outside the ROW to NPS-approved routes. Should additional road access be required, permission must be sought from the NPS prior to disturbance, and appropriate remuneration fees will be assessed.
- Keep areas around the towers clean and free of debris.
- Maintain a clean construction site and remove all related equipment, materials, and litter following construction.
- Revegetate disturbed areas with approved species.
- Provide regular maintenance of access roads and fences.
- Cut stumps close to ground.
- Implement “low-impact tree clearing” which involves directional tree-felling, both mechanically and by hand, and add buck trees to promote decomposition.
- Rehabilitate and/or restore disturbed areas.

Soundscapes

BMPs NPS will require to Avoid and Minimize Impacts during Construction:

- Comply with county and city noise ordinances.
- Install sound-control devices on all construction equipment.
- Install muffled exhaust on all construction equipment and vehicles except helicopters, if used.

Visitor Use and Experience

BMPs NPS will require to Avoid and Minimize Impacts during Construction:

- Coordinate construction schedules with NPS to avoid peak visitor use periods and notify visitors of construction.
- The applicant must develop a plan to avoid or minimize impacts to park visitors, including visitors using roads, trails, the river and other areas affected by construction. The applicant must assure visitor safety while keeping recreation areas open to the greatest extent possible. NPS must approve the timing and duration of all closures.
- Prior to construction develop a media strategy/notification plan as a means to notify local residents and visitors of closures.

Health and Safety

BMPs NPS will require to Avoid and Minimize Impacts during Construction:

- Develop safety and emergency plans for the project prior to construction activities.
- Fully train operators of the construction equipment and vehicles to reduce the chance of accidents.
- Inspect construction equipment for malfunctions or faulty parts to reduce the risk of leaking fluids that could harm the environment or humans from contact.

- Put in place safety devices such as traveling grounds, guard structures, and radio-equipped public safety roving vehicles and lineman prior to the initiation of wire stringing activities.
- Install guard poles or guard structures at all transportation, flood control, and utility crossings. Guard poles are temporary facilities designed to stop the travel of the conductor should it momentarily drop below a conventional stringing height.
- Restrict use of the immediate area in which construction will occur for safety reasons (PPL and PSE&G 2008, A10-6) to minimize impacts on park visitors during construction of the line within the parks.
- Fence off construction areas in areas outside of the park, but inside the study area, where the public could access the construction site.
- Station a safety representative at APPA crossings during any and all construction to maintain public safety.
- Station a safety watchman on the river during stringing operations to stop any boat traffic if an incident does occur or if conditions otherwise warrant (PPL and PSE&G 2008, 6).
- Implement road closures and traffic control to minimize the risk of accidents from occurring during the construction period.
- Regularly maintain and inspect helicopters and employ operators certified/licensed in helicopter aviation.
- Operators conducting aerial work in support of the utility may encounter hazards from the various types of flight profiles, terrain, infrastructure, weather, and operation at low levels and speeds.
 - To reduce the potential risk of a collision, the crew will identify potential collision hazards and make corrective actions prior to taking flight.
 - While in flight, the crew will exercise concentration, maintain situational awareness, be knowledgeable of their area of operations, maintain effective communications, and establish clear roles and responsibilities.

Compensatory Mitigation

The applicants have offered, and NPS will require as a permit condition, that they deposit at least fifty-six million dollars (\$56,000,000) into a Middle Delaware Compensation Fund, as will be described in a memorandum of agreement to be entered with and managed by The Conservation Fund, to:

- Acquire lands from willing sellers that can be included in the boundaries of APPA and DEWA as compensatory mitigation for lands over which ROW rights are granted.
- Carry out wetlands restoration projects elsewhere within APPA and DEWA as compensatory mitigation for wetlands impacted by ROW clearing and maintenance.
- Carry out historic preservation projects elsewhere within APPA and DEWA as compensatory mitigation for historic properties impacted by line construction.

OTHER ALTERNATIVES CONSIDERED

Alternative 1 - No Action

Under the no-action alternative, the NPS would deny the applications for ROWs and construction permits to expand the B-K Line to a new double-circuit line through NPS lands. The existing B-K Line traverses approximately 4.3 miles of DEWA. The line initiates at the Susquehanna Substation and enters DEWA in

Pennsylvania approximately 0.25 mile east of Big Bushkill Creek. The line then exits the park, connects to the Bushkill Substation, travels through developed areas, including Fernwood Golf Course, and reenters DEWA south of the South Zone Ranger Station and north of DEWA Headquarters, crossing MDSR just north of Depew Island. The line continues southeast past the Watergate Recreation Site and across APPA to the eastern DEWA boundary. There are 22 existing transmission towers located within DEWA boundaries for the existing B-K Line, and there are no existing access roads to the ROW.

This alternative assumes that the existing line within the parks would remain in place without expansion or replacement. In essence, it assumes that current conditions on the ground will continue indefinitely into the future. However, the applicant could seek to expand or replace the existing utility lines within the existing easements through the parks. There are no proposals to do so at this time.

Alternative 2b - Applicant's Alternate Proposal

The alignment for the applicant's alternate proposal would follow the same route as described for alternative 2 (the selected alternative). The difference between alternative 2 and alternative 2b is that the former would require widening the existing ROW, while the latter would be constructed within the existing ROW. The towers for alternative 2b would be the same height as those described for alternative 2, but alternative 2b would require two additional towers within NPS lands compared to alternative 2. These towers would be constructed within the 100-foot-wide portion of the alignment. Because the ROW under alternative 2b is narrow, the applicant's plans require these additional towers to protect against fire hazards presented by the risk of conductor blowout. The minimum horizontal clearance to the edge of the ROW under high wind conditions to prevent conductor blowout was determined to be greater than 100 feet, and the NPS has expressed concern about the safety of constructing within the existing ROW. The applicant's proposal is based upon the controversial assumption that they have a right to clear danger trees on NPS property outside any deeded ROW (PPL 2010b). It is assumed that larger individual trees outside the ROW would be removed periodically.

Access roads for alternative 2b are similar as those described for alternative 2, with a slight difference in Pennsylvania between the Bushkill Substation and the Delaware River. Alternative 2b would require a total of 5.3 miles of access roads, of which 2.4 miles would occur outside the ROW.

Alternative 3

The alternative 3 alignment would pass through DEWA along the ROW of existing transmission and distribution lines. The existing transmission and distribution lines would be removed prior to construction of the S-R Line. The existing transmission line ROW is cleared to 100 feet wide, and this alternative would require clearing of vegetation for an additional 50 to 200 feet of ROW. The structures of the transmission and distribution lines would be constructed so that these lines and the S-R Line would run parallel to one another within the expanded ROW. That is, two separate sets of structures would be constructed, one set for the proposed S-R Line and one set for the existing transmission and distribution lines along the alternative 3 alignment. Alternative 3 would cross a total of 5.4 miles within the DEWA boundary. The route would cross about 1.3 miles of DEWA within the study area and about 1.7 miles of the northern end of Worthington State Forest, which is located within DEWA's exterior boundaries. The alignment for this alternative also crosses MDSR within DEWA, and APPA within Worthington State Forest.

The alternative 3 alignment is approximately 6.9 miles long within the study area. The alternative 3 alignment would follow the alignment of the B-K Line for 0.6 mile from the western boundary of DEWA to the Bushkill Substation. The alignment would leave the study area and travel southwest to reenter the study area via the VSL point located in Monroe County, Pennsylvania, outside DEWA. From the western

VSL, the alignment would cross River Road and the McDade Trail about 1.0 mile southwest of the Smithfield Beach Picnic Area and 0.75 mile northeast of the Hialeah Picnic Area. The alignment would continue southeast within DEWA approximately 0.8 mile to MDSR. On the east side of MDSR, the route would travel northeast approximately 0.49 mile to the boundary of Worthington State Forest; the remainder of the alignment within DEWA boundaries would also be encompassed by Worthington State Forest's boundaries. The alignment would travel southeast approximately 1.69 miles to the eastern edge of DEWA, perpendicularly crossing APPA. The alignment would travel another 0.24 mile beyond the DEWA boundary to the VSL. The alternative 3 alignment would reenter DEWA beyond the eastern VSL as well. In the path to join the alignment of the B-K Line in New Jersey, alternative 3 could travel along the border of DEWA for 1.8 miles, paralleling APPA for this entire distance. Alternative 3 would require approximately 3.5 miles of access roads, of which 0.9 mile would occur outside the ROW.

Alternative 4

Alternative 4 would pass through three portions of DEWA; the section of the park from the western boundary along the B-K Line to the Bushkill substation; through the southwestern boundary of the park, where the alignment leaves the boundary of the park for 0.51 mile, then re-enters the park. On the southernmost portion of DEWA, alternative 4 runs along the path of an existing distribution line ROW, and would also pass through a section of the park along the alignment of the B-K Line. The existing ROW is cleared from 100 to 200 feet wide, and this alternative would require permanent clearing of vegetation for an additional 100 to 200 feet of ROW. This line along alternative 4 would be removed prior to construction of the S-R Line. The structures of the existing distribution line would be replaced so that this line and the double-circuited S-R Line would run parallel to one another within the expanded ROW. The route would cross about 1.5 mile of NPS lands, including DEWA and APPA. This alternative would also cross the Lower Delaware River; however, the crossing of the Delaware River would occur outside DEWA and MDSR boundaries and outside the study area.

Alternative 4 would have a north-south orientation and would be approximately 2.3 miles long within the study area. As with alternative 3, the alternative 4 alignment follows the alignment of the B-K Line for 0.6 mile from the western boundary of DEWA to the Bushkill Substation. The alignment would leave the study area and travel southwest to reenter the study area via the VSL point at the edge of DEWA, near the southwestern boundary of the park. Upon entering DEWA from the north, the alternative 4 alignment would cross about 0.42 mile of DEWA land, roughly following the DEWA boundary, and would cross Mountain and Totts Gap roads. The alignment would then leave the boundary of DEWA for approximately 0.51 mile, before re-entering the park. Upon reentering DEWA, the alignment would immediately cross APPA, then extend approximately 0.50 mile south to the southern boundary of DEWA. South of DEWA, the alternative 4 alignment would extend another 0.24 mile before the southern VSL. The designated boundary of Cherry Valley National Wildlife Refuge borders the existing ROW of the alternative 4 alignment north of APPA for approximately 0.73 mile. Alternative 4 would require a total of approximately 2.5 miles of access roads, with approximately 1.6 miles within NPS boundaries. Alternative 4 would use 0.9 mile of existing roads as access roads and would require construction of 1.6 miles of new access roads, of which 0.5 mile would occur outside the ROW.

Alternative 5

Alternative 5 would run along the path of an existing distribution line ROW in the southernmost portion of DEWA. The existing ROW is cleared to 100 feet wide, and this alternative would require permanent clearing of vegetation for an additional 200 feet of ROW. This line along alternative 5 would be removed prior to construction of the S-R Line. The structures of the existing distribution line would be replaced so that this line and the double-circuited S-R Line would run parallel to one another within the expanded ROW. The route would cross about 1.5 mile of NPS lands, including DEWA and APPA. This alternative

would also cross the Lower Delaware River; however, the crossing of the Delaware River would occur outside DEWA and MDSR boundaries and outside the study area.

Alternative 5 would have a north-south orientation and would be approximately 1.7 miles long within the study area. Alternative 5 would enter the study area via the VSL point at the edge of DEWA, near the southwestern boundary of the park. Upon entering DEWA from the north, the alternative 5 alignment would cross about 0.42 mile of DEWA land, roughly following the DEWA boundary, and would cross Mountain and Totts Gap roads. The alignment would then leave the boundary of DEWA for approximately 0.51 mile, before re-entering the park. Upon reentering DEWA, the alignment would immediately cross APPA, then extend approximately 0.50 mile south to the southern boundary of DEWA. South of DEWA, the alternative 5 alignment would extend another 0.24 mile before the southern VSL. The designated boundary of Cherry Valley National Wildlife Refuge borders the existing ROW of the alternative 5 alignment north of APPA for approximately 0.73 mile. Alternative 5 would require a total of approximately 1.7 miles of access roads; however, 0.9 mile of existing road would be used. Alternative 5 would require construction of approximately 0.9 mile of new access roads, of which 0.16 mile would occur outside the ROW.

BASIS FOR DECISION

The purpose and need of the NPS action analyzed in the EIS is to grant or deny the applicant's proposal considering the purposes and resources of the affected units of the national park system, as expressed in statutes, regulations, policy, and the NPS objectives in taking action. In making the decision to select alternative 2, the NPS considered the applicant's existing property rights, the alternatives evaluated in the EIS and the impacts on park resources and values of each alternative, and the comments received from other agencies and the public during the EIS process.

Following is an evaluation of the other alternatives examined in the EIS with regard to how each factored into the decision-making process.

No-action Alternative: There is a great deal of public support for selecting the no action alternative, which means that the NPS would deny the permit application and the existing powerline would remain essentially unchanged. The impact analysis in the EIS showed that the no action alternative would have the least adverse impacts on park resources and values, and it was identified in the EIS as the environmentally preferable alternative. The NPS agrees that the no action alternative would be the best choice if the only consideration were protection of park resources and values. However, the NPS cannot ignore the fact that the applicant owns a property interest in the existing powerline corridor. The applicant asserts that these existing rights are sufficient to allow it to build an alternative design to the line (Alternative 2b) without the grant of additional rights. The NPS may not prevent the applicant from exercising these rights without effectuating a taking. Accordingly, there are two possible results of the selection of the no-action alternative. First, the line may not be built, and the environmental status quo may continue if the applicants decide to abandon the project, as analyzed in the EIS. This is viewed as unlikely by the NPS. Second, the applicant may decide to pursue alternative 2b, as analyzed, asserting its present property rights, and if it were prevented from constructing within its present rights, it might assert a "takings" claim against the United States. The latter is a particularly undesirable option for the NPS as, in its view, as discussed below, alternative 2b is less preferable than the selected alternative.

Condemnation of the present right of way to prevent construction of alternative 2b has been rejected as impractical. Consequently, selection of the no-action alternative would present the NPS with significant uncertainty, and a strong probability that the eventual outcome would be worse for park resources than the selected alternative. Under these circumstances, NPS has rejected the no-action alternative in favor of the selected alternative, which, while causing more impact than failure to construct would, causes less impact than Alternative 2b.

Alternative 2b: At first glance, alternative 2b might appear to have fewer impacts to some park resources because the applicant would be restricted to building entirely within the existing ROW width. However, the additional width required by the selected alternative is only 50 feet, or 25 feet on either side of centerline, over a small portion of the line within APPA and DEWA. The difference in width between alternative 2b and the selected alternative comes with some significant costs, as the existing width in some sections is insufficient to meet current safety standards. Although the applicant asserts that alternative 2b could be built safely, independent transmission line engineers engaged by NPS disagree, and NPS views this alternative as creating serious safety concerns due to insufficient clearance between the lines and vegetation. Alternative 2b would also require two additional towers within park boundaries, with attendant increases in tower visibility and construction impact. Finally, the present ROW deeds are the basis of ongoing disagreement between the NPS and the applicants over the extent to which applicants may clear vegetation outside the area of cleared right of way. Alternative 2b (like the no-action alternative) would leave this disagreement unresolved, while the selected alternative would resolve it.

Alternatives 3, 4 and 5: Alternatives 3, 4, and 5 were developed to examine whether or not the proposed powerline could be constructed across the parks in a less sensitive area, and with less impacts to park resources and values. Alternative 3 was discovered to have more impacts on some resources and was not considered a desirable choice once the analysis was completed. Alternatives 4 and 5 both have far less impacts on park resources and values than the other action alternatives and from the NPS perspective, would meet the test of protecting park resources and values to the greatest extent possible without unduly interfering in the property rights of the applicant. However, alternatives 3, 4, and 5 were all based on a presumption that the applicant would voluntarily give up their existing property rights along the current easement and in return, the NPS would grant a new ROW in the selected location. The applicants have indicated that they are unwilling to give up their existing easement in exchange for another in a new location. As noted in the EIS, the NPS has considered but rejected the option of requiring the construction of the line in a new location while permitting the present line to remain.

Thus, the NPS has selected alternative 2, the applicant's proposal, with the mitigation measures described in this ROD. As discussed above, the selection factor with the greatest weight was the legal constraint presented by the applicant's existing property rights. However, in making the selection, the NPS also considered the adverse impacts on park resources and values that would likely result from construction of the new powerline, as well as the NPS' authority to reasonably regulate these activities within park boundaries. Therefore, the selected alternative incorporates mitigation that will be required conditions of the NPS permit. The NPS believes the required mitigation will avoid and minimize adverse impacts to the greatest degree possible, recognizing that some significant adverse impacts may still occur. The applicant has offered compensatory mitigation for unavoidable adverse impacts, as detailed above under Mitigation Measures. This is important and welcome, and a necessary offset to the impacts imposed on park resources; however, compensatory mitigation was not a deciding factor in the selection of the alternative, which was driven primarily by legal considerations and the relative impacts of the alternatives.

As discussed above, mitigation will be implemented to avoid and minimize adverse impacts to the greatest degree possible, but unavoidable adverse impacts will still occur.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The Council on Environmental Quality (CEQ) regulations require federal agencies to identify the environmentally preferable alternative in a Record of Decision (40 CFR 1505.2). The environmentally preferable alternative is the alternative that causes the least damage to biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources. The environmentally preferable alternative is identified upon consideration and weighing by the Responsible

Official of long-term environmental impacts against short-term impacts in evaluating what is the best protection of these resources. In some situations, such as when different alternatives impact different resources to different degrees, there may be more than one environmentally preferable alternative (43 CFR 46.30).

The NPS has determined that alternative 1 (no action) is the environmentally preferable alternative. The NPS made this determination based on the analysis of the scientific data about the proposal and included mitigation provided by the applicant and collected by NPS contractors. Alternative 1 would result in the least amount of damage to the biological and physical environment. As the data show, all the alternatives will have some degree of direct and indirect adverse impact on the resources identified within the study area. None of the action alternatives would produce a net benefit or even keep conditions completely neutral; they would all be negative from an environmental point of view. Alternative 1 would leave the existing B-K Line ROW in place, essentially maintaining conditions at status quo, with the exception of increased vegetation management, which would be likely to occur along the corridor of all the alternatives due to implementation of the newest NERC safety standards. Nonetheless, the relatively minor impacts of additional cutting and clearing in the existing ROW would be outweighed by the more significant environmental damage that would certainly occur with the construction and operation of a larger transmission line within the parks under any of the other proposed alternatives, including the two proposed by the applicant. Alternative 1 would thus result in the least damage among the alternatives. Alternative 1 would best protect and preserve the scenic, historic, cultural, recreational and natural resources of the parks involved and will therefore best promote the national environmental policy of NEPA.

PUBLIC AND AGENCY INVOLVEMENT

The planning process for the EIS was conducted with extensive public and agency involvement that included multiple newsletters, workshops, meetings, briefings, and a formal public comment process. These activities are briefly summarized below and a detailed discussion is presented in “The Public Scoping Process” section in Chapter 5 of the final EIS and appendix I.

Scoping

The internal scoping process began with scoping meetings conducted on September 15, 16, and 17, 2009, with staff members from the parks, the NPS Environmental Quality Division, the NPS Northeast Region, and contractor personnel in attendance. The internal scoping meeting began with a presentation on the process and background of NEPA, followed by a presentation by the applicant. During the remaining days, NPS identified the purpose of and need for action, management objectives, issues, and impact topics. Park resources, possible alternative elements, and the project schedule were also discussed. A preliminary alternatives meeting was held on December 16 and 17, 2009, with staff members from the parks, representatives from PPL and PSE&G, and contractor personnel in attendance. The purpose of the meeting was to discuss the route alternatives for the S-R Line developed by the applicant, develop the criteria to evaluate the different transmission line route alternatives, and work cooperatively to develop additional transmission line route alternatives in addition to the ones provided by the applicant.

Public scoping began with the January 21, 2010, Federal Register publication of the notice of intent to prepare an EIS (75 FR 3486–3487). The notice of intent summarized the proposed action and explained how to comment on the action. NPS released a public scoping newsletter to the public for review and comment on January 21, 2010. The newsletter included a description of the proposed S-R Line, the purpose and need, background information, project objectives, and a list of issues and impact topics. The newsletter also provided information on upcoming public scoping meetings. The newsletter was sent to individuals, businesses, agencies, and organizations on the parks’ email distribution list. The parks also issued a news release inviting the public to comment at the scoping meetings. On February 16, 17, and

18, 2010, public scoping meetings were held in Bushkill, Pennsylvania, Lake Hopatcong, New Jersey, and Parsippany, New Jersey, respectively. Each meeting began with an open house, followed by a short presentation by NPS explaining the project, as well as the project planning process. A formal public comment session with a court reporter was held after the NPS presentation. A total of 311 participants attended the public scoping meetings and 102 spoke formally during the comment sessions. A 30-day public scoping comment period, with a two-week extension, was provided from January 21 until March 12, during which members of the public were able to submit their comments on the proposed S-R Line. During the entire public scoping period, over 6,500 pieces of correspondence were received.

A second preliminary alternatives workshop was held May 4, 5, 6, and 7, 2010. Attendees included staff members from the parks, NPS Environmental Quality Division Northeast Region, and contractor personnel. The meeting included a discussion of the project schedule, identification of additional data needed for the analysis of alternatives, a discussion of the proposed alternative, a discussion of which alternatives should be dismissed, and logistics for the public meetings. Following this workshop, NPS held another set of public meetings regarding alternatives on August 17, 18, and 19, 2010, in Bushkill, Pennsylvania; Stroudsburg, Pennsylvania; and Lafayette, New Jersey, respectively. The public was invited to submit comments on alternatives from July 9, 2010, to September 14, 2010. During the public comment period, 1,700 separate pieces of correspondence were received.

Public Comment on Draft EIS

On November 21, 2011, the NPS released the draft EIS for the S-R Line for public review and comment. The draft EIS included a description of the proposed project and alternatives proposed, a description of the resources found within the study area, and an analysis of the impacts of the proposed project on these resources. The draft EIS was available for public review until January 31, 2012.

During the comment period, three public meetings were held in Pennsylvania and New Jersey from January 24 through 26, 2012. Meetings were held in Bushkill, Pennsylvania; Stroudsburg, Pennsylvania; and Lafayette, New Jersey. Each public meeting had an open house from 2:30 p.m. until 4:30 p.m. and a public hearing from 6:00 p.m. until 9:00 p.m. A total of 368 individuals attended the public comment meetings in Pennsylvania and New Jersey, and a total of 102 participants spoke during the formal public comment sessions. Nearly 27,000 pieces of correspondence were received during the public comment period. Approximately 26,000 pieces of correspondence were form letters submitted by the National Parks Conservation Association and the Sierra Club.

All of the public comments received on the draft EIS were read and analyzed by the NPS team. The analysis of the public comments received and NPS responses are provided in appendix L of the final EIS. Among the comments received, a majority were expressions of support for the no action alternative, general opposition to the project, and opposition to the proposed mitigation. Commenters cited concerns over impacts to natural and cultural resources, as well as the visitor experience as reasons they did not support the proposed project.

Based on comments received from the applicant, an access road that was proposed through Arnott Fen was moved to reduce project impacts. In addition, blasting for tower installation was also removed and replaced with drilling to reduce impacts to geologic and natural resources. Other changes to the draft EIS as a result of public comments included warranted corrections and clarifications to the document.

Section 106 of the National Historic Preservation Act

Consistent with guidance in National Park Service Management Policies and Directors Orders, NPS managers elected to comply with Section 106 of the National Historic Preservation Act for the issuance of the construction and ROW permit through the use of 36 CFR 800.8(c), which allows federal agencies to

use the NEPA process to meet Section 106 compliance responsibilities, according to standards in that subpart of the regulations. Integration of the requirements of Section 106 of the NHPA into the NEPA process and documentation are accomplished by meeting the criteria set forth in 36 CFR 800.8(c)(1)-(4).

Early in the scoping process for the EIS, NPS staff began consulting with the Pennsylvania and New Jersey Historic Preservation Offices and numerous federally-recognized Tribes. Additionally, the scoping process included sets of news releases, public scoping meetings that included newsletters and information on historic resources, and general public notification of the decision-making process and alternatives being considered. NPS staff members shared extensive research, hosted consultation calls, and conducted on-site consultation meetings, finalizing the list of Section 106 consulting parties in spring 2012, when the NPS identified a preferred alternative.

The list of Section 106 consulting parties includes the Absentee Shawnee Tribe of Indians of Oklahoma; Advisory Council on Historic Preservation; Appalachian Trail Conservancy; Delaware Nation, Oklahoma; Delaware Tribe of Indians, Oklahoma; Eastern Shawnee Tribe of Oklahoma; New Jersey Historic Preservation Office; New York-New Jersey Trail Conference; Oneida Nation of New York; Onondaga Nation of New York; Pennsylvania State Historic Preservation Office; Preservation New Jersey; Saint Regis Mohawk Tribe, New York (formerly the St. Regis Band of Mohawk Indians Of New York); Seneca-Cayuga Tribe of Oklahoma; Seneca Nation of New York; Shawnee Tribe, Oklahoma; Stockbridge-Munsee Community, Wisconsin; and Tonawanda Band of Seneca Indians of New York.

Other local organizations and municipalities have participated in discussions about this project.

In addition to information that was made available to the public in the draft EIS on the undertaking and its effects on historic properties, the NPS and the applicant have completed numerous cultural resource studies and investigations. The results of these efforts were shared with the Section 106 consulting parties. National Park Service cultural resource studies and findings supported the development of the draft EIS. The applicants' final reports, completed in spring 2012, contributed to development of the final EIS. Details on the consultation process can be found in Appendix M of the final EIS, and the PEPC site for the Susquehanna-Roseland Transmission Line, (<http://parkplanning.nps.gov/document.cfm?parkID=220&projectID=25147&documentID=49560>).

The EIS and associated consultation determined the Area of Potential Effect (APE) (as described in the draft EIS and final EIS) and identified historic properties contained within it. The NPS worked with the consulting parties and the applicant to avoid and minimize effects to historic properties where possible and mitigate adverse effects where necessary. It was determined that there would be adverse effects to at least one archeological site, seventeen historic structures, and fourteen cultural landscapes (as specified in the final EIS). Through this ROD, the NPS commits to the following measures and processes to further avoid or minimize effects, and to mitigate adverse effects to historic properties from the issuance of the ROW and construction permit to the applicant. As discussion between the NPS, consulting parties and the applicant continue, and the applicant finalizes the design of the transmission line, the NPS will refine the minimization and mitigation measures and formalize the commitments itemized below as conditions of permit granted to the applicant.

Mitigation Measures

While there are some physical effects, adverse effects from the issuance of this permit are primarily visual; due to the scale of the proposed towers, minimization efforts through vegetative screening are unlikely to be successful. Accordingly, through consultation with the Section 106 consulting parties, the NPS has developed mitigation measures that address the overall adverse effect to the parks from issuing the permit rather than focusing on effects to individual properties. The mitigation measures for specific properties and broad-based management plans and interpretive materials will be stipulated in the

applicant's permit. The applicant will fund the identified mitigation measures, as well as any future avoidance, minimization, or mitigation measures resulting from the issuance of NPS permit, with oversight by the NPS. All of the activities below will be completed according to the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR 68), and by, or under the supervision of, personnel who meet the Secretary of the Interior's professional qualification standards (48 FR 44716, 1983), as appropriate.

Appalachian National Scenic Trail

- The applicant will allocate \$500,000 from the Middle Delaware Compensation Fund to rehabilitate, improve, and protect elements and features of the Appalachian Trail that contribute to its National Register eligibility. The two specific activities below (viewshed analysis and National Register nominations) will be paid for from this allocation. These efforts may be associated with points along the Trail that are directly affected by the Susquehanna-Roseland Line or may be associated with mitigating existing adverse effects at other points along the Trail within the established Area of Potential Effect. Projects will be completed by the National Park Service, the Appalachian Trail Conservancy, or other not-for-profit organizations associated with the Appalachian Trail (e.g. New York-New Jersey Trail Conference, the Appalachian Mountain Club). Rehabilitation, screening, or clearing will be decided upon and conducted at the direction of the National Park Service after discussion with the appropriate Section 106 consulting parties after construction.
- The NPS will oversee the preparation of a viewshed analysis for the portion of the Appalachian Trail within the APE that will identify critical, character-defining views to inform the development of the National Register nominations discussed below.
- The NPS will oversee the preparation of National Register nominations for the entire portion of the Appalachian Trail within the State of New Jersey and a reasonable segment of the Trail in Pennsylvania, as determined in discussion with the Pennsylvania State Historic Preservation Office. These nominations will follow the standards of the multiple property documentation form the NPS is currently developing for the full length of the Appalachian Trail. The nominations must meet the standards of the New Jersey State Historic Preservation Officer, Pennsylvania State Historic Preservation Officer, and National Register of Historic Places, and will be considered complete when accepted and approved by the Keeper of the National Register.
- In addition to these measures, there are efforts related to this decision underway outside of the Section 106 process, such as land protection measures (including land acquisition), that will augment the current Section 106 mitigation plan

Within the Appalachian Trail, activities will occur within the existing ROW, which will not be widened. The above mitigation measures satisfy the requirements under Section 106 of the NHPA for effects to the Appalachian Trail.

The NPS received two letters from non-profit organizations seeking to comment about or object to the NPS's compliance with Section 106 of the National Historic Preservation Act (E-mail to NPS from Preservation New Jersey dated Sept. 28, 2012; and Letter from the New York-New Jersey Trail Conference dated Sept. 25, 2012). The comments in the letters were previously raised by these organizations or other organizations or individuals, and the NPS already addressed these comments through Section 106 meetings and added analyses in the FEIS. Moreover, the NPS, in consultation with the consulting parties, developed binding measures that seek to avoid, minimize, or mitigate potential adverse effects associated with the proposal to address the comments raised by the letters. These measures were discussed in the FEIS, which cross-referenced the draft mitigation plan that was made publicly available on the NPS's website prior to publication of the FEIS, and are contained in

the ROD. Additionally, the NPS did not provide for a public comment period for the FEIS. See 40 C.F.R. § 1503.1(b). Nevertheless, we note that the dispute resolution provisions contained in this ROD and the Section 106 Mitigation Plan will apply to the future actions covered by or implemented in accordance with this plan.

Delaware Water Gap National Recreation Area

NPS tasks identified under this heading will be completed using an allocation from the Middle Delaware Compensation Fund, as detailed below. The applicant will pay for all other tasks.

- The NPS will require the applicant to make all efforts to avoid any ground disturbing activity that will impact archeological resources. The NPS will also require the applicant to fully excavate affected portions of any archeological site that will be impacted by unavoidable ground disturbance. Any excavation must be done under an Archeological Resources Protection Act (ARPA) permit.
- With the input of Tribes and State Historic Preservation Officers, the NPS will develop an archeological monitoring plan that will identify appropriate locations for archeological and/or tribal monitoring during construction-related ground-disturbing activities. The plan will meet or exceed New Jersey, Pennsylvania, and NPS standards. The NPS will complete the plan prior to the initiation of construction. The applicant will pay for monitoring costs not to exceed \$170,000.
- The NPS will prepare a historic properties management plan for DEWA. This plan will identify and analyze historic structures and districts within the park, including historic significance, interpretation value, and potential for future reuse. The NPS will develop this plan in consultation with the interested Section 106 consulting parties, with substantial input from the surrounding communities and the public. The NPS will encourage additional agencies and other organizations who were not consulting parties during the development of the EIS to participate in the development of the historic properties management plan. The park will specifically encourage the involvement of their partner organizations in measures that affect the properties of interest to them.
- The applicant will allocate \$12,500,000 from the Middle Delaware Compensation Fund for physical preservation, rehabilitation, and/or restoration of historic structures and landscapes at DEWA. The expenditure of funds will be guided by the results of the historic properties management plan and input from the Section 106 consulting parties. Funds will be focused on the Old Mine Road Historic District and other appropriate locations within the park in Pennsylvania and New Jersey.
- The NPS will consult with the federally-recognized Tribes affiliated with the park to develop a tribal cultural program. This program may include a tribal cultural center in the park, to be established at the Westbrook-Bell House or other appropriate facility identified in the historic properties management plan.
- The applicant will complete vegetative screening or other treatments of cultural landscapes. Specific locations of screening, clearing, or other landscape treatments will be selected by the NPS, in cooperation with the Section 106 consulting parties after the transmission line has been built, when visual effects to historic landscapes are more fully defined. This effort will not exceed a cost of \$500,000.
- The NPS will oversee the completion of three National Register nominations or updates to existing nominations, such as updates to the Old Mine Road Historic District and Millbrook Village nominations and/or the completion of a River Road (PA) nomination. The nominations must meet the Pennsylvania or New Jersey Historic Preservation Office, and National Register of

Historic Places standards, and will be considered complete once accepted and approved by the Keeper of the National Register of Historic Places.

- The NPS will oversee the completion of five research studies, such as Historic Structure Reports, Cultural Landscape Reports, historic contexts, or research syntheses. The NPS will solicit input from the Section 106 consulting parties for this project to determine the subjects of the studies.
- The NPS will oversee the completion of four interpretive products, such as tour podcasts, site-specific interpretive signs, scenic byway signs, or popular publications. The NPS will solicit input from the Section 106 consulting parties for this project to determine appropriate products under this stipulation.
- The applicant will provide Delaware Water Gap National Recreation Area \$350 per box of artifacts and \$500 per linear foot of archeological records created by the surveys, evaluations, and any possible excavations resulting from design and construction under this permit to cover the costs of curation of those artifacts/records. The artifacts and records will be prepared and stored according to the standards in 36 CFR 79. Any human remains or objects subject to the Native American Graves Protection and Repatriation Act (NAGPRA) discovered as a result of this construction permit will be handled according to the regulations at 43 CFR 10.
- The above mitigation measures satisfy the requirements under Section 106 of the NHPA for effects to the Delaware Water Gap National Recreation Area. However, this plan recognizes that there are additional efforts related to this permit underway outside of the Section 106 process, such as land protection measures (including land acquisition), that may also be put in place and will augment the current Section 106 mitigation plan.

Schedule for Completion of Mitigation Measures

Within three years of issuance of the permit, these measures will be complete:

- Historic Properties Management Plan
- National Register nominations for the Appalachian National Scenic Trail
- Identification of locations for vegetative screening/cultural landscape treatments

Within five years of issuance of the permit, these measures will be complete:

- National Register nominations for Delaware Water Gap National Recreation Area
- Interpretive products

Within ten years of issuance of the permit, these measures will be complete:

- Research studies
- Vegetative screening/cultural landscape treatments
- Preservation, rehabilitation, and/or restoration projects of historic structures and cultural landscapes for which funding is provided under this plan.

Project-Wide Stipulations Applicable to Both Parks:

Consulting Party Involvement

- Unless otherwise specified, the NPS will provide the Section 106 consulting parties with 30 days to review and provide comments or input on the implementation of measures identified in this plan. Consulting parties will have the opportunity to review and comment on interim and final drafts, as appropriate, and the identification of properties proposed for rehabilitation.

If the NPS is unable to fulfill the commitments outlined in this mitigation plan, it will notify all consulting parties that it will follow the procedures in 36 CFR 800.3 through 800.6 as necessary to address any

changes in the mitigation plan.

The following conditions will be included as stipulations in the permit, and will apply to all activities covered by the permit. Any activities that occur outside of the actions allowed under the permit will undergo separate Section 106 compliance.

Unanticipated Effects

The permit will include the following stipulations to apply if any new adverse effects are identified as a result of changes in design or from unanticipated archeological discoveries during construction:

1. The NPS and Applicant will determine if avoidance/minimization measures are possible. These include but are not limited to:
 - Visual effects from towers/widened ROW
 - Physical effects from construction
2. Applicant will present feasibility/infeasibility of avoidance/minimization to NPS; NPS will submit to Section 106 consulting parties for review and comment.
3. If the NPS and applicant determine that avoidance is not technically or environmentally feasible, the applicant will propose minimization efforts for NPS approval. This may include but is not limited to planting vegetative screening at sites identified for which it would be appropriate, or restricting damage to minimal area and/or less significant resources. Data recovery would still be required for any affected portion of archeological sites. The NPS and Section 106 consulting parties will review and discuss any proposed minimization efforts before NPS approval.
4. If the NPS determines minimization efforts are not adequate, the applicant will be responsible for additional mitigation and/or compensation. The NPS will consult with the Section 106 consulting parties to identify appropriate mitigation. Mitigation measures for archeological sites may include, but are not limited to, data recovery, curation costs, and/or production of interpretive materials. Mitigation measures for historic structures and cultural landscapes may include, but are not limited to, physical rehabilitation, development of interpretive materials, planning documents, HABS/HAER/HALS documentation, and National Register nominations. This stipulation only applies if new adverse effects are identified based on unanticipated discoveries during construction, or significant changes in design proposed by the applicant. If the new adverse effects are due to unanticipated ground-disturbing activities, no ground disturbance can occur until the appropriate avoidance or mitigation efforts are determined. The NPS will determine the appropriate mitigation measures, in consultation with the appropriate Section 106 consulting parties, within 5 business days of determining the adverse effect is unavoidable.

Design and Pre-Construction Activities

As the applicant finalizes the placement of transmission towers, crane pads, pull sites, access roads, and other associated features and activities, the applicant will submit the designs and locations to the NPS. Reviews will be limited to the precise, final location of towers, crane pads, and access roads established through discussions with the NPS. Adjustments from existing plans will be made, where possible given engineering and operational constraints, to avoid and minimize potential adverse impacts.

Archeology

- All archeological activities necessary for planning and/or construction will be controlled by a valid Archeological Resources Protection Act (ARPA) permit.

- All areas of possible ground disturbance determined sensitive for archeological resources must have undergone archeological survey (Phase I) and evaluation of identified archeological sites (Phase II) where deemed necessary through review and consultation prior to ground-disturbing activities in that particular location. Survey and evaluation results must have been reviewed by the appropriate Section 106 consulting parties and comments considered by the NPS prior to proceeding.
- The applicant shall protect sites through fencing, matting, or other NPS-approved methods, where appropriate. If archeological sites cannot be protected and will be damaged by ground disturbance, the NPS will oversee their excavation according to a data recovery plan that meets NPS, state, and park-specific standards and is concurred upon by the NPS and the appropriate SHPO and Tribes prior to ground-disturbing activities. DEWA has a standard of archeologically excavating 100% of the affected portion of any archeological site impacted by development within the park.
- An archeological and/or tribal monitor must be present for ground-disturbing activities identified according to the archeological monitoring plan (as identified above) within the boundaries of the park to ensure no previously undiscovered sites are affected; the monitors may decide their presence is not required for individual actions. Applicant must coordinate the schedule of all ground disturbance with the monitors to ensure coverage, where appropriate. The cost for monitoring is included in the NTE estimate identified in the park-specific measures listed above.
- If construction crews make unanticipated discoveries of archeological materials, work will immediately stop in the discovery location. Monitors will make an on-site determination of the likelihood of human remains; if none is expected, monitors will notify the respective park superintendent and cultural resource manager, who will coordinate with the respective SHPO and Tribes for an eligibility determination and treatment method, as needed, within 15 days.
- If construction-related activities uncover human remains, the applicant or its contractors will stop work at the location immediately, and notify park law enforcement, monitors, and the park cultural resources manager. Park law enforcement will determine if the remains are the result of a crime, and, if so, will contact the local coroner to determine whether the remains are of American Indian origin. If the coroner determines that the remains are American Indian, NPS managers will comply with NAGPRA requirements as described in 43 CFR 10 or a park-specific NAGPRA Plan of Action. If the coroner determines that the remains are not American Indian and not the result of a crime, the park superintendent and cultural resource manager will coordinate with the appropriate SHPO to determine disposition of the remains.
- The NPS will require the relocation of ground disturbing activities to avoid human remains, unless technically infeasible. If not technically feasible, the applicant will consult with park and Tribes on the reasons, and discuss alternate strategies, such as re-interment. Applicant is responsible for all costs associated with the delineation of the boundaries of the burial site, if required; relocation of ground disturbance; and costs of re-interment or alternate treatment methods.
- Applicant is responsible for all costs associated with survey/evaluation/mitigation of effects to archeological sites, as well as any costs for construction delays associated with such activities.
- The applicant must prepare an archeological survey plan for review and approval by the DEWA and APPA cultural resources manager for any post-construction ground-disturbing activities related to maintenance and/or improvement of the line within the boundaries of DEWA, APPA, or MDSR for which the NPS will issue permit(s).

Historic Structures/Cultural Landscapes

Physical rehabilitation or restoration efforts on historic structures and cultural landscapes resulting from this project, and conducted by entities other than the National Park Service, will be supervised and inspected by the NPS to ensure they meet the Secretary of the Interior's Standards for the Treatment of Historic Properties. If the efforts do not meet the Standards, the performing entity will make all necessary adjustments, at its own expense, until rehabilitation or restoration meet the Standards.

Dispute Resolution

1. Should any consulting party object in writing to the NPS regarding any action carried out or proposed with respect to any undertakings covered by this plan or to implementation of this plan, the NPS will notify all consulting parties and consult with the objecting party to resolve the objection.
2. Within thirty (30) days after initiating such consultation, if the NPS determines that the objection cannot be resolved through consultation, the NPS will forward all documentation relevant to the objection to the ACHP, including the proposed response to the objection.
3. Within thirty (30) days after receipt of all pertinent documentation, the ACHP will exercise one of the following options:
 - a. Advise the NPS that the ACHP concurs with the NPS proposed response to the objection, whereupon the NPS will respond to the objection accordingly; or
 - b. Provide the NPS with recommendations, which the NPS will take into account in reaching a final decision regarding its response to the objection.
4. Should the ACHP not exercise one of the above options within thirty (30) days after receipt of all pertinent documentation, the NPS may assume the ACHP's concurrence in its proposed response to the objection.
5. The NPS will take into account any ACHP recommendation or comment provided in accordance with this stipulation with reference only to the subject of the objection; the NPS's responsibility to carry out all the actions under this plan that are not the subjects of the objection will remain unchanged.

Section 7 Consultation

Consultation with USFWS and the National Oceanic and Atmospheric Administration (NOAA) Fisheries has been completed as required by the Endangered Species Act and the Magnuson-Stevens Fishery Conservation and Management Act.

NPS has engaged with NOAA Fisheries with a formal consultation letter; on May 13, 2010, NPS received a response from NOAA Fisheries regarding the project. The letter stated that there are American shad between the Delaware Water Gap and the New York border; additionally, there may be also be shad in the Philadelphia reach of the river. Depending on further information regarding the transmission line crossing of the river, NOAA Fisheries may need to be consulted again. In addition, seasonal work restrictions should be incorporated into the project schedule for any work in the Delaware River. NPS received a response to the preliminary alternatives newsletter from NOAA Fisheries on July 22, 2010. The letter noted that while a population of an endangered species could be found in the Delaware River, the population was downstream of the study area. NOAA Fisheries stated that as no listed species were found in the study area, further section 7 consultation will not be required. On January 31, 2012, the NPS received a letter from NOAA Fisheries indicating that NOAA had reviewed the draft EIS. The letter contained specific comments regarding the presence of the federally endangered shortnose sturgeon, federal candidate species Atlantic sturgeon, and the American shad within the study area during some periods of the year. However, NOAA Fisheries concluded that the detailed discussion of impacts to the

river were discussed adequately in the draft EIS, and that no consultation will be required as part of the federal permit process. The letter recommended the use of BMPs to minimize turbidity and other water quality impacts. These letters can be found in appendix I of the final EIS.

After initial engagement of USFWS with a consultation letter, USFWS sent an initial response letter on June 11, 2010, regarding the project. The letter noted that the federally listed Indiana bat and bog turtle could be affected by the permit if specific permit conditions were not met. Migratory birds were also addressed, and USFWS provided recommendations on the draft Avian Protection Plan provided by PSE&G. Recommendations for all species included seasonal restrictions, mitigation measures, and additional surveys. NPS received a response to the preliminary alternatives newsletter from USFWS on September 3, 2010, and an additional response on October 21, 2010, with potential impacts of each alternative on federally listed species and suggested recommendations regarding listed species. In a letter dated January 10, 2011, NPS requested more information from USFWS on any federally listed species within the vicinity of the proposed alternatives within the park. The NPS sent a letter to the USFWS on November 16, 2011, requesting comments on the draft Biological Assessment and draft EIS for informal consultation. The USFWS replied to the letter, indicating that the USFWS could not provide advice on the need for formal consultation and noting that the USFWS could not commit to completing consultation by May 2, 2012, as requested. The letter from the USFWS provided some comments on impacts and options on concluding consultation. Another letter received from the USFWS on January 31, 2012, included comments on the draft EIS and on impacts to the bog turtle, Indiana bat, bald eagle, and other migratory birds. The draft Biological Assessment was sent to USFWS on May 21, 2012. Comments were received and the final Biological Assessment was sent to USFWS on June 29, 2012. In a letter dated July 6, 2012, USFWS concurred with the finding by NPS that the preferred alternative was not likely to adversely affect endangered species on NPS lands. These letters and the Final Biological Assessment can be found in appendix I of the final EIS.

In a letter dated February 7, 2011, NPS invited USFWS to become a cooperating agency for this EIS. On March 14, 2011, USFWS responded and agreed to become a cooperating agency, pending a formal Interagency Agreement, and on April 1, 2011, NPS sent a request to USFWS to formalize the Interagency Agreement. The agreement was signed on December 5, 2011.

CONCLUSION

The above factors and considerations warrant implementing alternative 2 as described and analyzed in the final EIS for Appalachian National Scenic Trail, Delaware Water Gap National Recreation Area, and Middle Delaware National Scenic and Recreational River and this Record of Decision. All practical means to avoid and minimize environmental harm from implementation of the selected alternative have been incorporated, as described in the final EIS and this Record of Decision. The alternative selected for implementation will not impair park resources or values and will allow the NPS to preserve park resources and provide for their enjoyment by future generations. This Record of Decision is not the final agency action for those elements of the decision that require the issuance of a permit or additional ROW. Final agency action to implement this decision will occur when a permit and ROWs incorporating these terms are completed and issued to the applicants.

REFERENCES

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- 2006 *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006.* Edison Electric Institute, Avian Power Line Interaction Committee and the California Energy Commission. Washington, DC, and Sacramento, California.

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- 1995 "A 20-year Study Documenting the Relationship between Turtle Decline and Human Recreation." *Ecological Applications* 5(4):1151–1162. The Ecological Society of America.

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- 2001 *Bog Turtle (Clemmys muhlenbergii) Northern Population Recovery Plan.* Available [online]: http://ecos.fws.gov/docs/recovery_plan/010515.pdf. Accessed July 2, 2010.
- 2007 National Bald Eagle Management Guidelines. May.
- 2010 Letter from the USFWS New Jersey Field Office to NPS in response to Section 7 Consultation. Dated 21 October.