



# Appalachian National Scenic Trail Delaware Water Gap National Recreation Area Middle Delaware National Scenic and Recreational River

New Jersey and Pennsylvania



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

August 2012  
Volume II



## VOLUME II CONTENTS

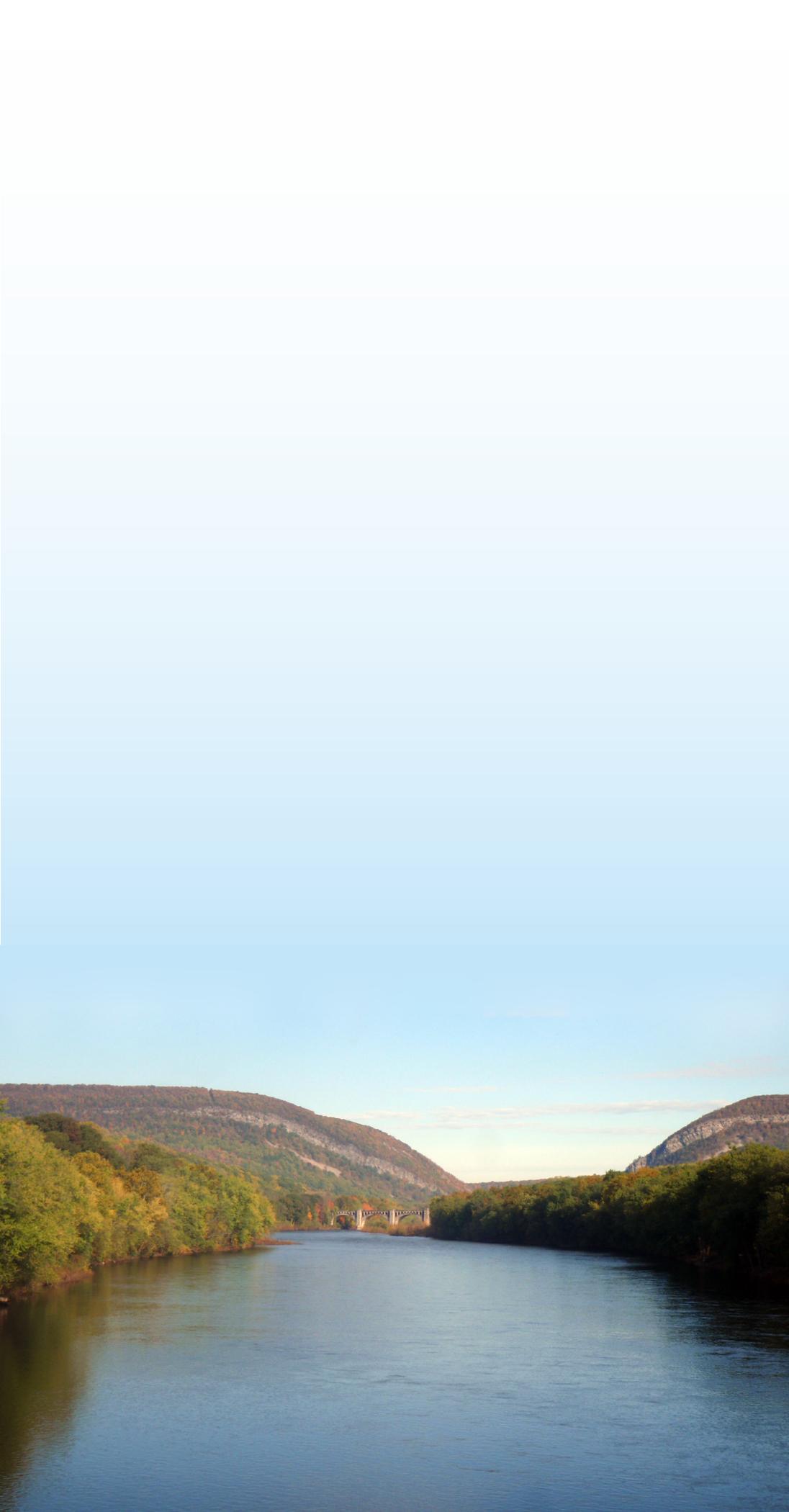
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## **Chapter 5** Consultation and Coordination



# CHAPTER 5: CONSULTATION AND COORDINATION

## INTRODUCTION

The intent of National Environmental Policy Act (NEPA) is to encourage the participation of federal and state-involved agencies and affected citizens in the assessment procedure, as appropriate. As part of the NEPA process, issues associated with the proposed action were identified during scoping meetings with National Park Service (NPS) staff, coordination with other affected agencies, and public meetings, as well as through public comments. This chapter describes the consultation that occurred during development of this Preliminary Draft Susquehanna to Roseland 500-kV Transmission Line EIS, including consultation with stakeholders and other agencies. This chapter also includes a description of the public involvement process and a list of the recipients of the draft document. The public involvement activities for this environmental impact statement (EIS) fulfill the requirements of NEPA, Section 106 of National Historic Preservation Act of 1966 (NHPA), and NPS Director's Order 12 (NPS 2011g) and accompanying Director's Order 12 Handbook (2001c).

## THE SCOPING PROCESS

Scoping is an effort to involve agencies and the public in determining the scope of issues to be addressed in an environmental document. Scoping includes consultation with all interested parties or any agency with jurisdiction by law or expertise to obtain early input. Among other tasks, scoping determines important issues and eliminates issues determined to be unimportant; allocates assignments among the interdisciplinary team members and/or participating agents; identifies related projects and associated documents; identifies other permits, surveys, consultations, etc. required by other agencies; and helps determine a schedule that allows for adequate time to prepare and distribute the environmental document for all interested parties to review before a final decision is made.

NPS divides the scoping process into two parts: internal scoping and external (or public) scoping. Internal scoping for the Susquehanna-to-Roseland Line (S-R Line) EIS involved discussions among NPS personnel and the interdisciplinary planning team regarding the purpose of and need for the management actions, issues, management alternatives, mitigation measures, the analysis boundary, appropriate level of documentation, available references and guidance, and other project-related topics.

Public scoping is the early involvement of the interested and affected public in the environmental analysis process. The public scoping process helps ensure that people have an opportunity to comment and contribute early in the decision-making process. For this EIS, project information was distributed to individuals, agencies, and organizations early in the scoping process, and people were given opportunities to express concerns or views and to identify important issues or suggest other alternatives.

Taken together, internal and public scoping are essential elements of the NEPA process. The following sections describe the various ways scoping was conducted for this EIS.

## INTERNAL SCOPING

The internal scoping process began with scoping meetings conducted on September 15, 16, and 17, 2009, with staff members from the parks, NPS Environmental Quality Division 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 Public Service Electric and Gas Company (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.

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.

## **PUBLIC SCOPING**

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. NPS staff members were present to visit with the workshop participants, answer questions, and address concerns. Posters, handouts, a PowerPoint presentation, and newsletters were made available at each public meeting. The public was invited to submit comments on the scope of the project and potential alternatives through March 12, 2010. A total of 311 participants attended the public scoping meetings and 102 spoke formally during the comment sessions. The number of attendees and formal commenters at each meeting included the following:

- Bushkill, Pennsylvania—93 attendees and 27 formal commenters
- Lake Hopatcong, New Jersey—98 attendees and 36 formal commenters
- Parsippany, New Jersey—120 attendees and 39 formal commenters

A 30-day public scoping comment period with a two-week extension of the comment period 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 from over 29 states and four countries (United States, United Kingdom, France, and Serbia and Montenegro) and entered into the Planning, Environment, and Public Comment (PEPC) database either from direct entry by the commenter, or uploading of emails, faxes, transcripts, and hard copy letters by NPS staff.

Approximately 6,343 letters were submitted by individuals living within the proposed area of the S-R Line. The NPS PEPC database was used for management of the comments. Comments were analyzed using a process developed by NPS to compile and correlate similar public comments into a format to be used by decision makers and the project team. Comment analysis assisted the team in organizing, clarifying, and addressing technical information pursuant to NEPA regulations. It also aided in identifying the topics and issues relevant for consideration in the EIS. A coding structure was developed during the internal scoping process to help sort comments into logical groups by topics and issues. A summary of the comments can be found in the *Public Scoping Comment Summary Report* dated April 2010, which is located on the NPS PEPC website. This report included the number and type of comments received, a summary of the substantive comments received, and a list of the organization or groups that participated in the public scoping effort.

The following were general concerns of the proposed project:

- Visual Resources—Multiple commenters stated concerns regarding the visual quality of the area and how the transmission line would destroy the natural and scenic beauty of the area.
- Wildlife—Commenters noted that the construction of the transmission line and access roads would destroy wildlife habitat and risk fatalities of migratory birds.
- Health and Safety—Commenters stated concerns for the health and safety of individuals living in close proximity to the proposed transmission line.

## **PUBLIC ALTERNATIVE DEVELOPMENT WORKSHOPS**

After the internal and public scoping meetings, 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 from over 27 states and seven countries (United States, Germany, Egypt, India, Sweden, Turkey, and Italy) were received. The correspondence resulted in 3,342 substantive comments. Approximately 1,572 of the letters submitted were from individuals living within the proposed area for the S-R Line (Pennsylvania and New Jersey). Among the commenters from Pennsylvania and New Jersey, the topics that received the majority of the comments were expressions of support for or opposition to the proposed alternatives; concerns for vegetation, wildlife, and water quality; concerns about the health and safety of individuals living close to the proposed transmission line; and concerns regarding impacts to privately owned real estate.

The following were general concerns of the proposed alternatives:

- Overall scope of the project—Multiple comments were received suggesting that the parks and/or the applicant should explore other alternative means of energy production, including local generation, energy conservation, solar power, wind power, and new transmission technologies.
- The proposed alternative routes' cumulative effects on air and water pollution from the use of coal-fired generating plants.
- Either the need for the project is unclear or the project not necessary based on the decrease of energy demand within the local area.
- Homeowners/townships expressed concerns of the placement of the transmission line through populated areas. Safety concerns include the health of individuals, especially the children

attending schools along the proposed routes, the impact of construction on emergency vehicles, and cancer clusters.

- Homeowners are concerned about decreasing home values if the transmission line were to run through their neighborhoods.
- Impacts on the historic viewshed and historic sites, including the Parsippany Rock House, Old Mine Road, and Morris Canal.
- Impacts on visitor experience at the parks from the noise associated with the transmission line and construction equipment, in addition to the natural viewshed/scenery of the parks being destroyed.
- Clear-cutting would be required for the transmission line and access roads. Commenters are concerned that the removal of vegetation would destroy habitat for many wildlife species, create habitat fragmentation, increase soil erosion, and degrade the water quality of the Delaware River.
- The migratory bird flight line and corridor are located along the proposed transmission line routes. Commenters are concerned that there would be an increase in bird strikes.
- The alternate proposed routes would pass through other park lands, including Cherry Valley National Wildlife Refuge (NWR), Lehigh Gorge, and other state parks, which are used by many locals in the area. Commenters feel these areas should also be preserved.
- Wetlands would be impacted along the alternative routes due to destruction of the wetlands, alterations to hydrology, and filling of wetland areas.
- Mitigation should be required for all impacts on natural resources, including wildlife, vegetation, water resources, and wetlands.

## **PUBLIC COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT**

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 (January 24); Stroudsburg, Pennsylvania (January 25); and Lafayette, New Jersey (January 26). 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. During the open house, the public was invited to look over the draft EIS and ask park staff questions regarding the draft EIS. The public hearing began with a meeting overview by the NPS project manager and welcome from the parks' superintendents. Formal public comment sessions were then recorded by a court reporter. The evening concluded with a return to the open house session. NPS staff were on hand to visit with meeting participants and to answer questions.

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. The number of participants and formal commenters at each meeting was as follows:

- Bushkill, Pennsylvania – 66 participants, 18 formal commenters
- Stroudsburg, Pennsylvania – 88 participants, 27 formal commenters
- Lafayette, New Jersey – 214 participants, 57 formal commenters

Nearly 27,000 pieces of correspondence from all 50 states, the District of Columbia, and 29 countries 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 form letters submitted by the National Parks Conservation Association and Sierra Club were read to determine if they contained any additional substantive material. Correspondences that did not contain any substantive material that differed from the form letter were included as a signature to the form letter. Correspondences with additional substantive text were considered individual correspondences. Of the correspondences submitted during the public comment process, 908 were not form letters. Of the 1,177 letters on PEPC, 896 were not associated with either the National Parks Conservation Association or Sierra Club form letter submittal.

Approximately 8,388 of the correspondences submitted were from individuals living within the proposed areas for the S-R Line (Pennsylvania and New Jersey), and of these, only 733 were not from the National Parks Conservation Association and Sierra Club submissions. After Pennsylvania and New Jersey, California, Florida, and New York were the states with the greatest number of submittals. Commenters who identified themselves as being outside the United States were mainly from Italy, France, Sweden, and Germany.

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 about impacts to natural and cultural resources and the visitor experience as reasons they did not support the proposed project.

These are some of the concerns expressed in the comments received (for an analysis of the correspondence received, please see appendix L):

- The project violates NPS mandates and policies to protect natural and cultural resources.
- Alternatives for routing and energy production – the park and/or applicant should explore other alternative means of energy production, including local generation, energy conservation, solar power, wind power, and new transmission technologies.
- The proposed project would result in cumulative effects to air and water pollution from the use of coal-fired generating plants.
- The need of the project is either unclear or is not necessary based on the decrease of energy demand within the local area.
- The scope of the project, including the study area, is not adequate to address the true impacts from the line.
- The methodology for establishing impacts was insufficient – commenters noted that the scope and/or method for impact analysis did not adequately assess the impacts of the proposed action.

- The width that would be needed for construction in alternative 2 is overestimated and the impacts should be reanalyzed with the narrower width.
- Visitor impacts – the proposed project would alter the experience of those who visit the parks, particularly from visual and sound impacts of the transmission line.
- Homeowners/townships expressed concerns about placing the transmission line through populated areas. Safety concerns include the health of individuals, especially children attending schools along the proposed routes, the impact of construction to emergency vehicles, and cancer clusters.
- Commenters are concerned that the removal of vegetation for the transmission line right-of-way (ROW) and the access roads would destroy habitat for many wildlife species, create habitat fragmentation, increase soil erosion, and degrade the water quality of the Delaware River.
- There is a migratory bird corridor that crosses the proposed transmission line routes. Commenters are concerned that there would be an increase in bird strikes.
- The alternate proposed routes would pass through other park lands including Cherry Valley NWR, Lehigh Gorge, and other state parks that are used by many locals in the area. Commenters feel these areas should also be preserved, and need to be included in the analysis.
- Wetlands would be impacted along the alternate routes due to destruction of the wetlands, alterations to hydrology, and from filling of wetland areas.
- Commenters suggested alternatives to the applicant’s proposed mitigation, including additional specific measures for mitigation.
- Commenters expressed opposition to the applicant’s proposed mitigation.
- Commenters expressed concern that cumulative impacts were not analyzed sufficiently.
- Commenters stated that alternatives 3, 4, and 5 are not viable alternatives.

## **AGENCY AND TRIBAL GOVERNMENT SCOPING**

Consultation letters regarding the proposed S-R Line were mailed on February 1, 2010, March 29, 2010, June 7, 2010, and July 16, 2010, to local and federal agencies and Tribal government representatives requesting consultation and comments regarding the proposed project. A representative agency letter and representative Tribal government letter can be found in appendix I and appendix M, respectively. Table 63 presents the federal and state agencies and Tribal governments that received consultation letters regarding the S-R Line project. Responses received from the agencies on the consultation letters are discussed below in “Agency Meetings.”

**TABLE 63: LIST OF FEDERAL AND STATE AGENCIES AND TRIBAL GOVERNMENTS THAT RECEIVED CONSULTATION LETTERS REGARDING THE S-R LINE**

Agency/Government Type	Agencies/Tribal Representatives
Federal agencies	Advisory Council on Historic Preservation National Oceanic and Atmospheric Administration-Fisheries Service U.S. Army Corps of Engineers U.S. Army Installation Management Command U.S. Forest Service U.S. Department of Defense U.S. Department of Energy U.S. Environmental Protection Agency U.S. Fish and Wildlife Service
State agencies	Delaware River Basin Commission New Jersey Board of Public Utilities New Jersey Department of Environmental Protection New Jersey Department of Transportation New Jersey Endangered and Nongame Species Program New Jersey Highlands Council New Jersey Natural Heritage Program New Jersey State Historic Preservation Office Pennsylvania Department of Conservation and Natural Resources Pennsylvania Department of Environmental Protection Pennsylvania Department of Transportation Pennsylvania Fish and Boat Commission Pennsylvania Game Commission Pennsylvania Historical and Museum Commission Pennsylvania Office of the Consumer Advocate Pennsylvania Public Utilities Commission
Tribal government representatives	Absentee-Shawnee Tribe of Indians of Oklahoma Delaware Nation Delaware Tribe Eastern Shawnee Tribe of Oklahoma Oneida Nation of Wisconsin Oneida Nation of New York Onondaga Nation of New York Saint Regis Mohawk Tribe of New York Seneca Nation of Indians Seneca-Cayuga Tribe of Oklahoma Shawnee Tribe of Oklahoma Stockbridge-Munsee Community Tonawanda Seneca Nation

## **AGENCY MEETINGS**

On April 9, 2010, letters were sent out to 8 federal agencies, 16 state agencies, and 12 Tribal government representatives with information on an agency information session to be held with park staff on May 4, 2010, from 1:00 p.m. to 4:00 p.m. Six agencies—the New Jersey Highlands Council, U.S. Department of the Army, New Jersey Department of Environmental Protection (NJDEP), U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS), and the Delaware River Basin Commission—attended the agency information session with one or more representatives, while the U.S. Environmental Protection Agency (USEPA), Pennsylvania Office of the Consumer Advocate, and NJDEP—and the Oneida Nation of New York also participated by phone. This meeting served as an agency scoping meeting, allowing each agency or government to present issues and concerns with the S-R Line project.

On May 20, 2010, a call was held between NPS and representatives from the Stockbridge-Munsee Community and The Delaware Tribe. The Tribal government representatives discussed what parts of the Delaware Water Gap National Recreation Area (DEWA) are important to their respective tribe and cultures and their concern with not having an opportunity to review resource reports before a preferred alternative was chosen.

A meeting was held on January 24, 2011, between USFWS, NPS, and the Department of the Interior. Topics discussed at this meeting included coordination between the three agencies for the S-R Line project and other projects moving forward, consultation under the Endangered Species Act, and the Avian Protection Plan for the S-R Line project.

On December 22, 2011, letters were sent to several tribes inviting representatives to attend an “on-site” tribal consultation for the S-R Line. Meetings were held January 23 through January 25, 2012, between the NPS, USFWS, and representatives from the Absentee Shawnee Tribe, the Eastern Shawnee Tribe of Oklahoma, the Delaware Tribe of Indians, the Delaware Nation, and the Stockbridge-Munsee Community. The meeting was an opportunity for the tribes to provide consultation on the proposed S-R Line project, and the potential impacts to park resources. Topics discussed at the meeting included an overview of the project and a discussion of concerns related to impacts, including impacts to wildlife, sacred sites, and burial ground concerns; the need to know pad locations; and a desire for more archeological work. All tribes present at the debriefing favored “Alternative 1: No Action.” Consultation letters can be found in appendix M.

## **COOPERATING AGENCY**

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. These letters can be found in appendix I.

An initial letter was received by NPS on May 13, 2010, from USACE stating that USACE would participate as a cooperating agency. Upon further review, the USACE sent a letter to NPS on August 3, 2010, withdrawing their desire to be a cooperating agency on the project based on the current scope of the project and the permitting needs of the project. These letters can be found in appendix I.

## **ENDANGERED SPECIES ACT SECTION 7 CONSULTATION**

Consultation with USFWS and National Oceanic and Atmospheric Administration (NOAA) Fisheries has been implemented 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 NPS project area. NOAA Fisheries stated that as no listed species were found in the study area, further section 7 consultation would 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 project 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 would be required as part of the federal permit process. The letter recommended the use of best management practices (BMPs) to minimize turbidity and other water quality impacts. These letters can be found in appendix I.

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 (BA) 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 cannot 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. These letters can be found in appendix I. Additionally, a copy of the draft BA was sent to USFWS on May 21, 2012.

Consultation with USFWS is ongoing.

## **SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT CONSULTATION**

Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties, seeking to accommodate historic preservation concerns with the needs of federal undertakings through consultation between the agency and parties with an interest in the effects of the undertaking (36 CFR Part 800). The NPS is integrating compliance with Section 106 of the NHPA into the NEPA process and documentation pursuant to 36 CFR § 800.8(c).

A consultation letter was sent to New Jersey Historic Preservation Office (NJ HPO) and the Pennsylvania Historical and Museum Commission, which serves as the Pennsylvania State Historic Preservation Office (SHPO), on February 1, 2010, describing the proposed project. An email response from the NJ HPO on

June 22, 2010, indicated the interest of the NJ HPO in consulting for the project pursuant to section 106 and 36 CFR Part 800. This correspondence can be found in appendix M.

On July 30, 2010, a letter discussing the proposed alternatives was sent to the Tribal governments listed in table 91. The Delaware Nation, Delaware Tribe, Stockbridge-Munsee Community, and the Oneida Nation of New York agreed to be consulting parties. On August 16, 2010, NPS received a letter from the Delaware Tribe of Indians regarding agreement with the recommendations for the Phase I archeological surveys in New Jersey and Pennsylvania, and request to be a consulting party for the project. On August 17, 2010, The Delaware Nation wrote an email response to NPS expressing the opinion of the Cultural Preservation Officer that either alternative 6 or the no-action alternative would be the best course of action, and noting that the Delaware Tribe prefers to avoid DEWA. This correspondence can be found in appendix M.

On July 18, 2011, NPS sent a letter to the Tribal government representatives requesting information pertaining to: tribal laws and policies, ethnographic resources, and sacred and burial ceremonial sites. Meetings between the NPS and several tribes were held during an on-site consultation at DEWA on January 24-27, 2012 (appendix M). On April 17, 2012, NPS sent a letter to notify several tribes, the NJ HPO, the PA SHPO, and Advisory Council on Historic Preservation (ACHP) of the selection of alternative 2 as the preferred alternative. NPS sent an additional letter providing an update on the project and requesting additional consultation was sent on April 27, 2012.

On June 30, 2011, NPS sent a section 106 notification letter to the ACHP describing the proposed project and the current status. The ACHP sent a letter to the NPS on February 6, 2012, that noted the willingness of the ACHP to participate in consultation and development of a memorandum of agreement for the proposed S-R Line. The NPS provide the ACHP with resource reports on February 10, 2012, and sent a response letter to ACHP on February 27, 2012. These letters can be found in appendix M.

A letter announcing the release of the draft EIS was sent to SHPOs, the ACHP, and tribes on November 21, 2011; this letter also provided references to the historic property lists and effect determinations within the EIS for their comment under 36 CFR § 800.8(c). An additional consultation package was sent out on May 2, 2012 to the NJ HPO, PA SHPO, ACHP, and 12 tribes. An on-site consultation was held on May 24, 2012 with tribes at DEWA. The NPS sent a letter to the USFWS on May 31, 2012 regarding the concerns of tribes about impacts on the bald eagle from alternative 2 (appendix M).

### **Archeological Resources**

The April 21, 2010, letter to NPS from the NJ HPO included comments and recommendations on several archeological sites discussed in the Phase I and Phase II archeological surveys. These recommendations included listing of certain sites with the New Jersey State Museum or National Register of Historic Places (National Register), further detailing of project plans in certain areas, and additional surveys and documentation at some sites. The overall conclusion by the NJ HPO was that the archeological survey did not include adequate subsurface testing to meet the NJ HPO Phase I archeological survey requirements (appendix I). A letter to NPS dated July 28, 2010, noted that further archeological investigations would be required at some sites, and that the NJ HPO wanted to consult on one site in particular site that may be eligible for the National Register (appendix I).

The Delaware Tribe Historic Preservation Office sent NPS a letter on August 10, 2010, noting that the office concurred with the recommendations of the Phase I archeological study, and noting that if certain sites cannot be avoided, a Phase II survey would be required. The Tribe Historic Preservation Office requested to continue consulting for the project (appendix I).

On January 12, 2012, the NPS received a letter from the NJ HPO providing consultation comments for the 2011 *Susquehanna to Roseland 500kV Transmission Project, Phase Ib and II Archeological and Geomorphological Investigations, End of Field Summary, The Delaware Water Gap National Recreation Area (NJ and PA)*. The letter indicated that the NJ HPO anticipated that one archeological site may be eligible for inclusion on the National Register, and that the NJ HPO looks forward to receiving the report detailing the completion of the Phase I/II archeological testing. The NJ HPO sent the NPS a revised opinion on April 17, 2012 indicating the site identified in earlier letters would be eligible for inclusion on the National Register. The letter also summarizes other sites identified in the report, identified another site eligible for listing on the National Register, and provided comments on the need for continued consultation under Section 106. These letters can be found in appendix M.

## Historic Structures

The April 21, 2010, letter from the NJ HPO also indicated that additional intensive-level surveys were needed for several properties, further research into the eligibility of several properties as historic district or cultural landscapes was necessary, and updates to some surveys would be needed (appendix M). An additional letter on August 31, 2010, from the NJ HPO included further comments on architectural surveys with further recommendations for intensive-level surveys at some properties (appendix M).

On August 15, 2011 letters were mailed along with CDs containing resource reports to the Tribal government representatives and SHPOs. Consultation with the SHPOs and Tribal government representatives is ongoing.

## LIST OF RECIPIENTS

A copy of the draft EIS was provided to the following agencies and organizations. These agencies and organizations will also receive a copy of this final EIS. A notice of availability of the EIS has been sent to attendees of the public meetings, park partners, and others listed on the project mailing list.

### ELECTED OFFICIALS AND COMMITTEES

- U.S. Senate New Jersey – Frank R. Lautenberg
- U.S. Senate New Jersey – Robert Menendez
- State Senate New Jersey District 24 – Steven V. Oroho
- State Senate New Jersey District 23 – Michael J. Doherty
- State Senate Pennsylvania – 18th District - Lisa Boscola
- State Senate Pennsylvania – 20th District - Lisa Baker
- State Representative Pennsylvania – 189th District - Rosemary Brown
- U.S. Senate Pennsylvania – Pat Toomey
- U.S. Senate Pennsylvania – Robert P. Casey
- U.S. Representative Pennsylvania – 11th District - Lou Barletta
- U.S. Representative New Jersey – 5th District - Scott Garrett
- U.S. Representative New Jersey – 11th District – Rodney P. Frelinghuysen
- U.S. Representative Pennsylvania – 10th District - Tom Marino
- State Representative Pennsylvania – 139th District - Michael Peifer
- State Representative Pennsylvania – 137th District – Joe Emrick (Northampton Co / Upper Mt Bethel Township)
- U.S. Representative Pennsylvania – 15th District - Charlie Dent
- Governor of New Jersey – Christopher Christie
- Governor of Pennsylvania – Thomas Corbett
- Office of the Governor, Pennsylvania, Director, Northeast Office

- Cong. Scott Garrett (NJ05)/District Coordinator – Gina Diorio
- Cong. Scott Garrett (NJ05)/Legislative Assistant – John Maniscalco
- Cong. Scott Garrett (NJ05)/Staff – Amy Nittolo
- New Jersey State Assemblyman District 23 – John Dimaio
- New Jersey State Assemblyman District 23 – Erik Petersen
- New Jersey State Assemblyman District 24 – Gary R. Chiusano
- New Jersey State Assemblywoman District 24 – Alison Littell McHose
- Mayor of Blairstown – Richard Mach
- Mayor of Delaware Water Gap
- Mayor of East Stroudsburg
- Mayor of Hardwick Township – Kevin Duffy
- Mayor of Knowlton Township – Frank Van Horn
- Mayor of Matamoras
- Mayor of Milford
- Mayor of Montague Township – Joe Barbagallo
- Mayor of Newton
- Mayor of Portland
- Mayor of Sandyston – George Harper
- Mayor of Stillwater Township – William Morrison
- Mayor of Stroudsburg – Charlie Baughman
- Mayor of Sussex Borough
- Mayor of Walpack – Raymond Fuller
- Mayor of Wantage – Clara Nuss

## **FEDERAL AGENCIES**

- Advisory Council on Historic Preservation
- Federal Highway Administration – Eastern Federal Lands Highway Division
- National Marine Fisheries Service
- U.S. Army Corps of Engineers
  - Baltimore District, Regulatory Branch
  - New York District, Regulatory Branch
  - Philadelphia District, Regulatory Branch
- U.S. Coast Guard
- U.S. Department of Agriculture
  - Grey Towers National Historic Site
  - U.S. Forest Service
- U.S. Department of the Army
  - Picatinny Arsenal
- U.S. Department of Commerce
  - National Oceanic and Atmospheric Administration (NE Regional Office)
- U.S. Department of Defense
- U.S. Department of Energy
  - Office of Electricity Delivery and Energy Reliability
- U.S. Department of the Interior
  - Office of Environmental Policy and Compliance
  - Boston, Massachusetts
  - Philadelphia, Pennsylvania
- U.S. Environmental Protection Agency
  - Environmental Review Section, Region 2
  - Region 2
  - Region 2, Watershed Management Branch
  - Region 3, Office of Environmental Programs
  - Section II
  - Section III
- U.S. Fish and Wildlife Service
  - New Jersey Field Office
  - Pennsylvania Field Office
  - Wallkill River, Great Swamp and Cherry Valley National Wildlife Refuges
- U.S. Forest Service
  - Washington, DC
- U.S. Geological Survey
  - Delaware River Master

## INDIAN TRIBES

- Absentee Shawnee Tribe of Indians of Oklahoma
- Eastern Shawnee Tribe of Oklahoma
- Oneida Indian Nation of New York
- Onondaga Indian Nation
- Saint Regis Mohawk Tribe, New York
- Seneca Nation of Indians
- Seneca Nation Tribal Historic Preservation Office
- Seneca-Cayuga Tribe of Oklahoma
- Shawnee Tribe, Oklahoma
- Stockbridge-Munsee Community
- The Delaware Nation
- Tonawanda Seneca Nation Office

## STATE AND LOCAL AGENCIES

### New Jersey

- New Jersey Board of Public Utilities – Siting Approval Office
- New Jersey Department of Commerce
- New Jersey Department of Environmental Protection
  - Department Natural and Historic Protection, Office of Natural Resource Restoration
  - Division of Fish and Wildlife
  - Division of Land Use Regulation
  - Division of Natural Heritage Program
  - Division of Parks & Forestry
    - High Point State Park
    - Stokes State Forest
    - Worthington State Forest
  - Division of Watershed Management
- Division of Water Quality
- Geological Survey Bureau of Water Resources
- New Jersey Historic Preservation Office
- New Jersey Department of Transportation
  - Northern District
- New Jersey Endangered and Nongame Species Program
  - Division of Fish and Wildlife
- New Jersey Highlands Council
- New Jersey Natural Heritage Program - Office of Natural Lands Management
- New Jersey Office of Permit Coordination and Environmental Review
- New Jersey Public Advocate
- New Jersey State Police

### Pennsylvania

- Pennsylvania Department of Conservation and Natural Resources
  - Bureau of Forestry, District 19
  - Pennsylvania Natural Heritage Program
- Pennsylvania Department of Environmental Protection
  - Northeast Regional Office
- Pennsylvania Department of Transportation
  - District 4
  - District 5
- Pennsylvania Department of Transportation
  - I-84 Welcome Center in Matamoras
  - PennDOT I-80/DWG Welcome Center
- Pennsylvania Environmental Council
- Pennsylvania Fish and Boat Commission
  - Environmental Service Division
- Pennsylvania Game Commission
  - Bureau of Wildlife Management
  - Northeast Region
- Pennsylvania Historical and Museum Commission
- Pennsylvania Natural Heritage Program
- Pennsylvania Office of Consumer Advocate
- Pennsylvania Public Utility Commission
- Pennsylvania State Police

## Counties

- Monroe County
  - Commissioners
  - Conservation District
  - Historical Association
  - Planning Commission
- Northampton County
  - Council
  - Executive
- Pike County
  - Chamber of Commerce
  - Conservation District
  - Historical Society
  - Office of Community Planning
  - Commissioners
- Sussex County
  - Board of Chosen Freeholders
  - Chamber of Commerce
  - Division of Planning
  - Office of Roads
  - Soil Conservation District
- Warren County
  - Chamber & Business Association
  - Department of Economic Development
  - Freeholders
  - Planning Department
  - Road Department
  - Soil Conservation District

## Local

- Blirstown Township
- Branchville Borough
- Delaware Township Supervisors
- Delaware Water Gap Borough
- Dingman Township Supervisors
- East Stroudsburg Borough
- Knowlton Township
- Lehman Township Supervisors
- Matamoras Borough Supervisors
- Middle Smithfield Township
  - Planning Commission
  - Supervisors
- Milford Borough Supervisors
- Milford Township Supervisors
- Montague Township
- Portland Borough
- Sandyston Township
- Smithfield Township Supervisors
- Stillwater Township
- Stroud Township Supervisors
- Stroudsburg Borough
- Upper Mt. Bethel Township Supervisors
- Walpack Township
- Westfall Township Supervisors

## Other

- Association of New Jersey Environmental Commission
- Community and Environmental Defense Services
- Delaware River Basin Commission
- Delaware River Greenway - Heritage Conservancy
- DRJTBC Delaware Water Gap
- DRJTBC Milford-Montague
- Emporia State University – Department of Sociology and Anthropology
- Greater Pocono Chamber of Commerce
- National Resources Defense Council
- Skylands of New Jersey Tourism Council
- Tri-State Chamber of Commerce
- Upper Delaware Citizens Advisory

## PUBLIC UTILITIES

- Atlantic City Electric
- Jersey Central Power and Light
- Orange and Rockland Utilities, Inc.
- PJM Interconnection L.L.C.
- PPL Electric Utilities
- Public Services Electric and Gas

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**ORGANIZATIONS AND PARTNERS**

- Adventure Sports Canoe & Raft Trips
- Allentown Hiking Club
- AMC - Mohican Outdoor Center
- American Canoe Association Inc.
- Appalachian Mountain Club
- Appalachian Trail Conservancy
- Audubon Pennsylvania
- BL Companies - NEPA Compliance, Cultural Resources Management
- Bushkill Outreach
- Camp Taylor Campground
- Chamberlain's Canoes
- Davis Chant Realtors
- Delaware Highlands Conservancy
- Delaware River Rafting & Canoeing
- Delaware Riverkeeper Network
- Delaware Valley Conservation Association
- Delaware Water Gap Welcome Center
- Delaware Water Gap/Tourist Information Counselor
- Dingmans Campground
- Dingmans Choice and Delaware Bridge
- Eastern National
- Fairview Lake YMCA Camps – Environmental Education
- Fernwood-Bushkill Group
- Friends of Delaware Water Gap NRA
- Kayak East
- Kennett Township Land Trust
- Kittatinny Canoes
- Matamoras Welcome Center
- Millbrook Village Society
- Montague Association for Restoration of Community History
- Montague Grange
- National Parks Conservation Association
- National Parks Traveler
- Natural Lands Trust
- New Jersey Audubon
- New Jersey Skylands
- New York-New Jersey Trail Conference
- Pack Shack Adventures
- Pennsylvania Association of Land Trusts
- Peters Valley Craft Center
- Pocono Environmental Education Center
- Pocono Heritage Land Trust
- Pocono Mountain Convention & Visitor Bureau
- Shawnee Development Co.
- Shawnee Inn & Golf Resort
- Shawnee River Adventures (Shawnee Inn)
- Sierra Club
- Silver Canoe Rentals
- Skylands Visitor
- Stop The Lines!
- The Nature Conservancy (Pennsylvania and New Jersey)
- The Paul F. Brandwein Institute, Inc.
- Walpack Historical Society
- Walpack Inn
- Wildlands Conservancy
- Wildlife Preserve, Inc. – Gateway One
- YMCA Camp Ralph Mason

**LIST OF PREPARERS AND CONSULTANTS**

<b>Name</b>	<b>Title</b>
<b>U.S. Department of the Interior, National Park Service</b>	
John J. Donahue	Superintendent, DEWA
Pamela Underhill	Superintendent, APPA
Bob Karotko	Deputy Superintendent, DEWA
Amanda Stein	Biologist/Project Manager, DEWA
Dave Clark	Northeast Regional Office, Regional Environmental Coordinator
Pat Lynch	Chief of Resources, DEWA
Kara Deutsch	NEPA Specialist, DEWA
Andrew Tittler	Northeast Regional Office Solicitor's Office
Brinnen Carter	NHPA Specialist, DEWA
Steve Culver	NEPA Specialist, Denver Service Center
Patrick Malone	Project Manager, Denver Service Center
Sarah Bransom	NEPA Specialist, APPA
Jennifer McConaghie	Northeast Regional Office, Resource Planning Specialist
Allan Ambler	Biologist, DEWA
Jeff Shreiner	Biologist, DEWA
Larry Hilaire	Wildlife Biologist, DEWA
Michele Kuna	Lands/ROW, DEWA
DeNise Cooke-Bauer	Natural Resource Specialist
Lori Rohrer	Archeologist
Brent Allen	NEPA Specialist, APPA
Bill Monahan	Ecologist, Washington Support Office (WASO)
Morgan Elmer	Project Manager, Denver Service Center

<b>Name</b>	<b>Title</b>
Jacki Katzmire	Northeast Regional Office, Regional Environmental Coordinator
Leslie Morlock	GIS Specialist, DEWA
Kathy Commisso	GIS Technician, DEWA
Cindy Branley	Lands Specialist, DEWA
Chiara Palazzolo	Project Manager, DEWA
Richard Evans	Ecologist, DEWA
Bill Leonard	Chief of Strategic Planning and Project Management Division, DEWA
Carla Beasley	Chief of Interpretation and Education Division, DEWA
Eric Lisnik	Chief of Visitor Management and Resource Protection Division, DEWA
Phil Morgan	Safety and Occupational Health Manager, DEWA
Deb Nordeen	Supervisory Park Ranger, DEWA
Rich Degnan	Roads and Trails Facility Manager, DEWA
Chuck Barscz	Northeast Regional Office, Program Manager (National Wild and Scenic Rivers)
Chuck Smythe	Northeast Regional Office, Regional Ethnographer
Lelaina Marin	Outdoor Recreation Planner, NPS Soundscapes
Kevin Noon	PhD, Natural Resource Specialist, Water Resources Division
David Uschold	Northeast Regional Office, Resource Planner
Sarah Killinger	NER Resource Planning Specialist, Philadelphia Support Office
Brenda Todd	Cultural Resource Specialist, Denver Service Center
Peter Sharpe	Biologist, Fredericksburg & Spotsylvania Battlefield NMP
<b>EA Engineering, Science, and Technology, Inc.</b>	
Suzanne Boltz	Project Manager
Jeffery Elseroad	Senior Water Quality Scientist
Christine Papageorgis	PhD, American Institute of Certified Planners (AICP), Chief Scientist

<b>Name</b>	<b>Title</b>
Mary Alice Koeneke	Terrestrial Ecologist
Sarah Koser	Terrestrial Ecologist
Tracy Layfield	NEPA Specialist
Erica Theole	Environmental Scientist
Allegra Marcell	Environmental Scientist
Jeannette Matkowski	NEPA Specialist
Kathryn Cerny-Chipman	Environmental Scientist
Anita Struzinski	Environmental Scientist
John Matkowski	Marine Scientist
Mark Dhruv	GIS Coordinator
Joe Neubauer	Senior Environmental Scientist
Dan Cockerham	Biologist
Adam Kumm	Environmental Scientist
Kristin Rigney	Environmental Scientist
Sarah Sa	GIS Coordinator
<b>David Evans and Associates, Inc.</b>	
Patti Steinholtz	Senior Environmental Planner
Kacey Meis	Planner and GIS Technician
Mara Krinke	Senior Planner
Laura Meyer	Associate, Senior Environmental Planner
Maggie Buckley	Environmental Planner
Anneke Van der Mast	Environmental Planner
Brynn A. Reimann	Visual Resource Specialist
Deb Perkins-Smith	Vice President, Transportation Planner

<b>Name</b>	<b>Title</b>
Sean Sullivan	Senior Visual Resource Specialist
Anne Hockenstad	GIS Technician
Mary Guse	Senior Project Coordinator
Orion Ahrensfield	3D CADD Simulation Technician
Jonathan Gage	Senior Landscape Architect
Brookley Duke	Landscape Architect
Sara Gilbert	Senior GIS Specialist
Kayla Kruse	GIS Analyst
Melissa Foltz	Graphic Designer
Paul Capell	Vice President, Transmission Line Engineer
Matt Williams	Transmission Line Engineer
Bill Bryne	Vice President, Engineer
<b>John Milner Associates, Inc.</b>	
Jane J. Jacobs	Landscape Architect
Richard Meyer	Principal Architectural Historian
Robert G. Kingsley	Principal Archeologist
William J. Chadwick	Principal Geoaarcheologist
Timothy J. Mancl	Project Archeologist
Courtney L. Clark	Project Architectural Historian
Peter A. Leach	GIS Specialist
Juliette J. Gerhardt	Laboratory Supervisor
Sarah J. Ruch	Graphics Artist
Kathryn L. Wood	Administrative Assistant

**Name**

**Title**

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**United States Fish and Wildlife Service**

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Michael Horne                      Refuge Manager, Cherry Valley National Wildlife Refuge

---

Wendy Walsh                      Biologist, New Jersey Field Office – Ecological Services

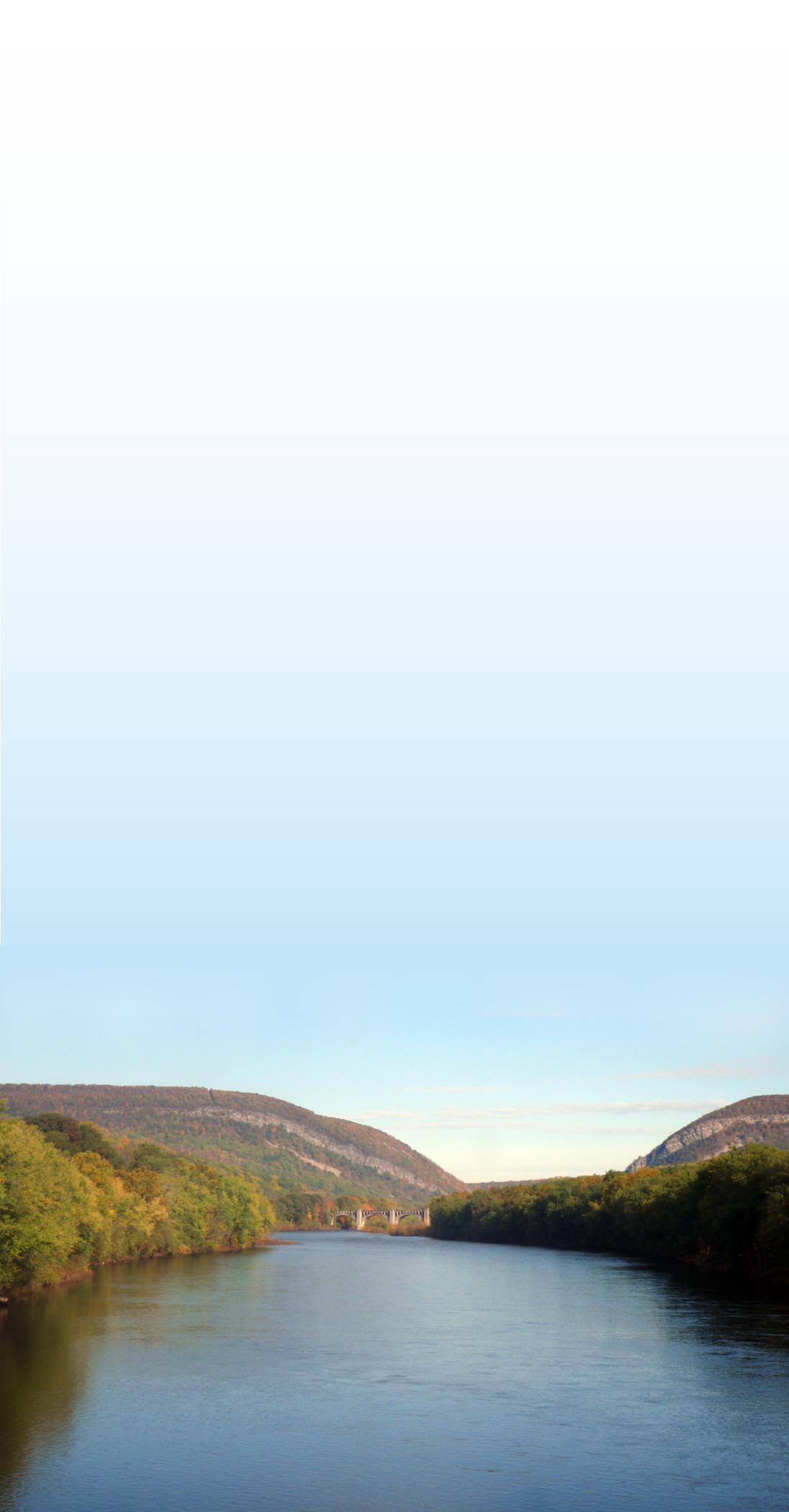
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Pamela Shellenberger              Biologist, Pennsylvania Field Office – Ecological Services

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Sarah Nystrom                      Biologist, Northeast Regional Office – Migratory Bird

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## Glossary



## GLOSSARY

**abundance**—Relative degree of plentifulness.

**action alternative**—An alternative that would involve a change from existing conditions, including changes to established trends or management direction.

**affected environment**—Term used in the National Environmental Policy Act to denote surface or subsurface resources (including social and economic elements) within or adjacent to a geographic area that could potentially be affected by a proposed action; the environment of the area to be affected or created by the alternatives under consideration. (40 CFR § 1502.15).

**alternative**—Combination of management prescriptions applied in specific amounts and locations to achieve desired management goals and objectives.

**amphibian**—Any of a class (Amphibia) of cold-blooded vertebrates intermediate between fishes and reptiles and having gilled aquatic young and air-breathing adults.

**anemometer**—Device used to measure wind speed.

**aquatic environment**—Marine, estuarine, or freshwater resources that support animal and plant species.

**aquatic resources**—Waterbodies and the flora and fauna within them.

**aquifer**—An underground layer of permeable rock that is capable of storing and transmitting water.

**archeological resources**—Any material remnants or physical evidence of past human life or activities of archeological interest, including the record of the effects of human activities on the environment. They are capable of revealing scientific or humanistic information through archeological research. Any material remnants of human life or activities at least 100 years of age, and of archeological interest (32 CFR § 229.3(a)).

**area of potential effect**—The geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking (36 CFR § 800.16[d]).

**artifact**—An object created by humans, usually for a practical purpose, that remains from a particular period.

**Bald and Golden Eagle Protection Act**—The Act, enacted for bald eagles in 1940 and amended in 1962 to include golden eagles, prohibits the take, transport, sale, barter, trade, import and export, and possession of eagles, making it illegal for anyone to collect eagles and eagle parts, nests, or eggs without a permit.

**bedrock**—Solid, unweathered rock beneath surface deposits of soil.

**benthic macroinvertebrate**—An organism without a spine that lives in the bottom of a body of water. Includes crustaceans, flatworms, and other species, many of which are vital food sources for birds.

**best management practices (BMPs)**—BMPs are state-of-the-art mitigation measures to help ensure that energy development and operations are conducted in an environmentally responsible manner. BMPs can be simple, such as choosing a paint color that helps oil and gas equipment blend in with the natural surroundings, while others involve cutting-edge monitoring and production technologies.

**brackish water**—Slightly saline water (between 0.5 and 30 ppm of salt) that often results from the mixing of freshwater and seawater.

**chert**—A hard, dark, opaque rock composed of silica with a fine-grained texture.

**Code of Federal Regulations**—The codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government.

**coliform**—Of or related to the rod-shaped bacteria (as *E. coli*) normally present in the intestine.

**contiguous forest**—Area of unfragmented, forested land with little or no human development such as roads, buildings, parking lots.

**contiguous habitat**—Unfragmented habitat. Particularly important for those species who have difficulty crossing from one chunk of habitat to another.

**Council on Environmental Quality**—As provided by NEPA, the Council on Environmental Quality (CEQ) was established in the executive office of the President. CEQ is composed of three members appointed by the President with the advice and consent of the Senate. The council is to “analyze and interpret environmental trends and information of all kinds; to appraise programs and activities of the Federal Government in the light of the policy set forth in subchapter I of this chapter; to be conscious of and responsive to the environmental, economic, social, esthetic, and cultural needs and interests of the Nation; and to formulate and recommend national policies to promote the improvement of the quality of the environment.”

**crackling**—Noise produced by high-voltage power lines caused by the electric field the power line generates by carrying electricity. The sound may be louder if there is increased moisture or pollutants in the air.

**critical habitat**—The specific areas within the geographical area occupied by the species at the time it is listed in accordance with the provisions of Section 4 of the Endangered Species Act, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and specific areas outside the geographical area occupied by the species at the time it is listed...upon a determination by the Secretary that such areas are essential for the conservation of the species.

**cultural landscapes**—Combinations of elements including vegetation, earthworks, roads, paths, buildings, views, and other man-made and natural features that truly represent or suggest a particular event or time period.

**cultural resources**—Archeological, traditional, and built environment resources, including cultural landscapes.

**dissolved oxygen**—Oxygen saturation; a relative measure of the amount of oxygen dissolved or carried in water.

**ecology**—The pattern of relations between organisms and their environment.

**ecosystem**—The complex of a community of organisms and its environment functioning as an ecological unit.

**electric fields**—The spaces surrounding charged particles which exert a force on other charged objects.

**elongate hemlock scale**—A serious armored scale insect pest of hemlock. Scales injure host plants by inserting their threadlike, piercing-sucking mouthparts into needles and withdraw vital nutrients necessary for plant growth from mesophyll cells. Armored scale insects do not feed on the contents of vascular cells. Excessive loss of plant fluid reduces the growth and health of the plant.

**encroachment**—Invasion of natural habitat by nonnative, invasive vegetation or by human construction or development.

**Endangered Species Act of 1973 (ESA)**—Provides for the conservation of threatened and endangered species of fish, wildlife and plants, and the critical habitat upon which threatened and endangered species depend.

**endangered species**—Any species that is in danger of extinction throughout all or a significant portion of its range, other than pests whose protection would present a risk to man (ESA of 1973, Public Law 93–205).

**Executive Order 11988, Floodplain Management**—States that an action class and applicable regulatory floodplain must be identified for any proposed action that may be harmed by flooding or has the potential for adverse floodplain impacts.

**exotics**—Non-native and/or invasive plant animal species.

**fault**—A crack in the earth's crust marked by discontinuity of strata on either side.

**Federal Register**—Published by the Office of the Federal Register, National Archives and Records Administration (NARA), the Federal Register is the official daily publication for rules, proposed rules, and notices of federal agencies and organizations, as well as executive orders and other presidential documents (<http://www.gpoaccess.gov/fr/>).

**federally listed endangered species**—An endangered species is one that is in danger of extinction throughout all or a significant portion of its range. Before a species can receive protection under the Endangered Species Act, it must first be placed on the federal list of endangered species. All actions leading up to and including listing of a species as endangered are published in the Federal Register (USFWS Endangered Species Program).

**fire roads**—Periodically maintained and bladed roads, classified as driveable firebreaks, which are opened prior to the fire season to provide administrative and emergency access to strategic or remote locations.

**flora**—Plant life characteristic of a region.

**forage**—*noun* Plant material (mainly plant leaves and stems) eaten by browsing animals.

**forage**—*verb* To search (as animal) for food; browse.

**fragmentation of habitat**—Breaking up an organism’s habitat into discontinuous chunks, particularly for organisms that have difficulty moving from one of those chunks to another.

**geographic information system (GIS)**—Any system that captures, stores, analyzes, manages, and presents data that are linked to location.

**geological resources**—A naturally occurring solid, liquid, or gas that is known or thought to exist in or on the Earth’s crust in concentrations that make extraction economically feasible, either at present or at some time in the future.

**habitat alteration**—Alteration of habitat occupied by unique or sensitive species can include trampled vegetation, altered or eroded soils, inadvertently introduced non-native species of plants, and increased potential for predators. Some wildlife species are highly vulnerable to even slight changes in habitat.

**habitat**—The place or environment where a plant or animal naturally lives. Can be classified as nesting habitat, foraging habitat, wintering habitat, and other life-cycle divisions.

**hemlock woolly adelgid**—A true bug that feeds by sucking sap from hemlock trees. In eastern North America it is a destructive pest that poses a major threat to the eastern hemlock and the Carolina hemlock (*Tsuga caroliniana*). The presence of hemlock woolly adelgid can be identified by its egg sacs, which resemble small tufts of cotton clinging to the underside of hemlock branches. The hemlock woolly adelgid feeds on the phloem sap of tender hemlock shoots. It appears to also inject a toxin while feeding.

**historic structures**—Buildings or other man-made structures representative of a particular period in history.

**human-made features**—Characteristics of places and regions constructed by people as opposed to natural features such as buildings, roads, and bridges.

**hydric soil**—A soil formed under conditions of flooding, saturation, or ponding long enough to develop anaerobic conditions.

**impacts**—The likely effects of an action upon specific natural, cultural, or socioeconomic resources. Impacts may be beneficial, or adverse and direct, indirect, and / or cumulative.

**impairment**—As defined in NPS Management Policies, “impairment” means an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values including the opportunities that otherwise would be present for the enjoyment of those park resources and values.

**impede**—Hinder; discourage; prevent.

**implementation**—Carrying out, putting into practice (as a rule or alternative).

**incubation**—The act or process of hatching eggs with the adults warming and protecting them by sitting on them (brooding).

**Indian Trust Resources**—Indian trust assets are owned by Native Americans but held in trust by the United States. Since the lands within the park boundaries are not held in trust by the Secretary of the Interior for the benefit of Indians, this topic was dismissed from discussion in this plan/EIS.

**infrastructure**—System of public works (e.g., roads, sanitation, water); one of the socioeconomic links shared by the community.

**interdisciplinary team**—A group of individuals with varying areas of specialty assembled to solve a problem or perform a task.

**interpretive**—Using a teaching technique that combines factual information with stimulating explanatory content. Part of the range of experiences a visitor might have is using a park’s interpretative or educational services via internet access, library, or at a park site.

**interspersed**—Separated by others, not continuous.

**invasive species**—Usually nonnative species, which can outcompete native species for habitat and resources.

**knoll**—A small, rounded hill.

**landform**—A natural feature of a land surface. Where unnatural landforms occur, they can indicate the presence of buried cultural resources.

**lease**—A legal document executed between a landowner, as lessor, and a company or individual, as lessee, that grants the right to develop the premises for minerals or other products.

**loam**—Soil containing 7 to 27% clay, 28 to 50% silt, and 23 to 52% sand by volume.

**magnetic field**— A condition found in the region around a magnet or an electric current, characterized by the existence of a detectable magnetic force at every point in the region and by the existence of magnetic poles.

**management policies**—The NPS *Management Policies* set the basic servicewide policy of the National Park Service. They provide the overall foundation, set the framework, and provide direction for management decisions within the National Park Service.

**mandate**—Because conservation remains its predominant mandate, the NPS seeks to avoid or to minimize adverse impacts on park resources and values.

**marsh**—A tract of soft, wet land usually characterized by monocotyledons (e.g., grasses, cattails).

**Migratory Bird Treaty Act of 1918**—A law making unlawful the kill, capture, buy, sell, import, or export of migratory birds, eggs, feathers, or other parts.

**migratory birds**—Birds that move periodically from one region to another for feeding, breeding, or wintering.

**mitigation**—“Mitigation” as defined in the National Environmental Policy Act (40 CFR § 1508.20), includes: avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its Implementation; rectifying the impact of repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; compensating for the impact by replacing or providing substitute resources or environments.

**monopoles**—A hypothetical particle with a single electric charge or magnetic pole instead of the usual two.

**National Environmental Policy Act (NEPA)**—An environmental law enacted in 1969 that established a national policy promoting the enhancement of the environment and also established the President’s Council on Environmental Quality (CEQ). The most significant effect of NEPA was to set up procedural requirements for all federal government agencies to prepare environmental impact statements.

**National Historic Preservation Act**—A law enacted in 1966 that requires federal agencies to consider the effects of their undertakings on properties listed or potentially eligible for listing on the National Register of Historic Places. All actions affecting the parks’ cultural resources must comply with this legislation.

**Native American**—Any of the indigenous peoples living within the United States.

**native plant communities**—Interdependent complexes of naturally occurring vegetation, which nourish native wildlife and which require specific soil conditions and other habitat characteristics to survive.

**Neotropical migrant birds**—Birds that breed in North America during the spring and early summer and spend the winter in Mexico, the Caribbean, and Central and South America. There are more than 200 species of Neotropical migrants, including songbirds, shorebirds, waterfowl, and some raptors such as hawks and vultures.

**No-action alternative**—An alternative that maintains established trends or management direction.

**nonrenewable resources**—Resources that cannot be produced or used on a scale that can sustain consumption. Once used, these resources can be replaced only after a considerable span of geologic time.

**notice of intent**—A notice of intent is a formal notice that an action will occur.

**Organic Act of 1916**—Established the National Park Service. The Act requires conservation of park scenery, natural and historic objects, and wildlife, and provision for the enjoyment of park resources in such a manner as to leave them unimpaired for the enjoyment of future generations.

**organisms**—Plants and animals, bacteria, and other living things.

**paleontological resources**—Fossil remains of life forms from past geological periods.

**palustrine wetlands**—All nontidal wetlands dominated by trees, shrubs, persistent emergent plants, or emergent mosses or lichens, as well as small, shallow open-water ponds or potholes. Often called swamps, marshes, potholes, bogs, or fens.

**perennial**—Persisting for several years, usually with new herbaceous growth.

**pesticide**—An agent, usually chemical, used to destroy pests. Pesticides have been detected in some of the waterbodies in the park.

**physiographic province**—A geographic region with a specific geomorphology and often specific subsurface rock type or structural elements.

**population viability**—The state of numbers and health at which a wildlife population is able to remain self-sustaining and continue to survive.

**predation**—Hunting and killing of prey by predators.

**propagation**—Increasing in numbers or area, usually by reproduction (plants).

**raptors**—Birds of prey; any bird that hunts other animals.

**Regulations**—Rules or orders prescribed by federal agencies to regulate conduct, and published in the Code of Federal Regulations.

**revegetation**—Reestablishment and development of self-sustaining plant cover. On disturbed sites, this normally requires human assistance, such as seedbed preparation, reseeding, and mulching.

**Right of Way (ROW)**—Strip of land in which the transmission line exists. The land is used by an electric utility to construct, maintain, or repair transmission line.

**riparian**—Related to, living on, or located on the bank of a natural watercourse.

**riverine wetlands**—Wetlands formed by and found alongside rivers. See **wetlands**.

**sacred sites**—Native Americans believe that certain areas of land are holy. Many of these places are fragile and have been adversely impacted by too many visitors or vehicles or activities.

**sandstone**—A sedimentary rock composed mainly of sand-sized minerals or rock grains.

**scoping**—Scoping is a process during the initial phase of project planning to seek input from a variety of sources. This input is used to identify issues, areas requiring additional study, alternative methods and locations, and topics to be analyzed in the National Environmental Policy Act document. Scoping is done internally with National Park Service staff and externally with the interested public, other agencies, and stakeholders.

**Scrub shrub**—A community characterized by woody vegetation less than 20 feet tall accounting for at least 30% of the vegetation.

**Secretary of the Interior**—Head of the Department of the Interior, which oversees such agencies as the Bureau of Land Management, the U.S. Geological Survey, and the National Park Service. The Secretary also serves on and appoints the private citizens on the National Park Foundation board and is a member of the President's Cabinet.

**sediment**—Particles of organic and mineral matter that settle to the bottom of a waterbody.

**sensitive habitat**—Natural communities that provide habitat for plant or animal species and that are particularly susceptible to human and other-related impacts. Species dependent on these habitats may suffer direct impacts from trampling and off-trail use of dunes and other fragile habitats.

**shale**—A fine-grained, clastic sedimentary rock composed of mud.

**shear**—A splitting force caused by tangential pressure.

**socioeconomics**—Relating to a combination of social and economic factors.

**soundscapes**—The overall auditory character of an area.

**special-status species**—Plant and animal species federally or state listed as endangered or threatened, or otherwise judged to be in need of protection.

**special use permit**—An exception to zoning regulations to allow special uses where they are not automatically allowed.

**stewardship**—Careful and responsible management of something entrusted to one's care.

**surficial**—Pertaining to or occurring on or near the earth's surface.

**terrestrial forests**—Area of land with a high density of trees.

**terrestrial habitats**—Land habitats, as distinct from freshwater and marine habitats.

**terrestrial vegetation**—Plants that have adapted to living on land.

**terrestrial wildlife**—Non-domesticated plants, animals, and other organisms that live on land.

**threatened species**—Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

**topography**—The configuration of a surface including its relief and the position of its natural and man-made features.

**trail corridor**—The area immediately surrounding and including the trail; invariably wider than the trail itself. Various factors influence the width of the trail corridor, including safety considerations, jurisdictional issues, and topography.

**transmission line**—Structure that is used to move large quantities of power at high voltage between generating or receiving point and major substations.

**turbidity**—Quality of being thick or opaque with roiled sediment.

**understory**—Layer of vegetation between the forest canopy (or top shrub layer) and the groundcover. Understory is an important wildlife habitat component of many tree- and shrub-dominated plant communities.

**urbanized**—Having taken on the characteristics of a city; nonrural.

**U.S. Department of the Interior**—The U.S. federal executive department that includes the National Park Service and the U.S. Fish and Wildlife Service, among other bureaus.

**visual split location (VSL)**—The first point at which the applicants would have a choice of routes for the transmission line outside the study area.

**groundwater contamination**—Contamination of a waterbody by introduction of microorganisms by wild birds and wild mammals.

**watercourses**—Streams of water (rivers, brooks, underground streams, etc.).

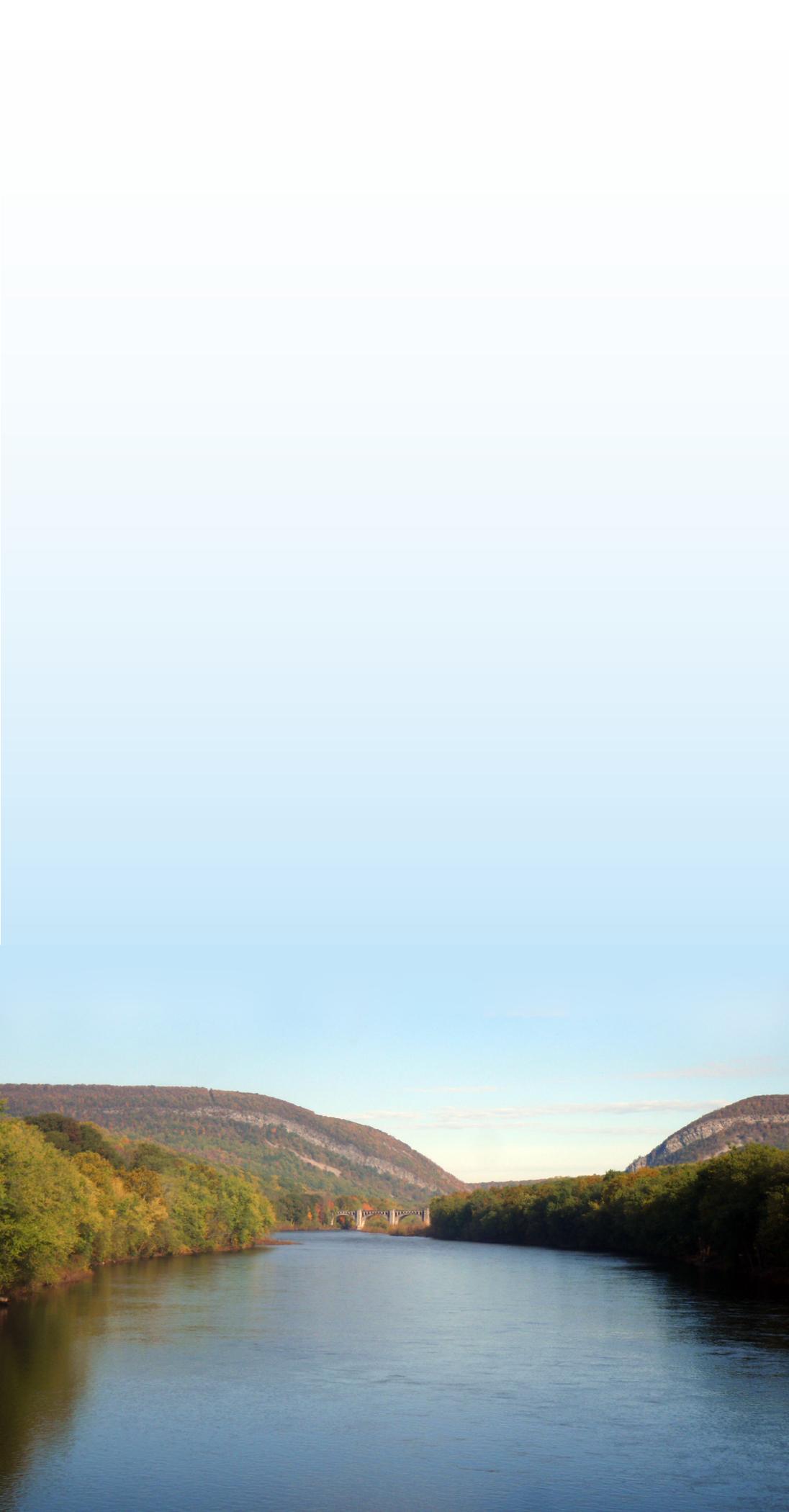
**wetlands**—Lands transitional between terrestrial and aquatic systems, where the water table is usually at or near the surface or the land is covered by shallow water.

**Wild and Scenic Rivers**—A river designated under the National Wild and Scenic Rivers Act (Public Law 90-542; 16 USC § 1271 et seq.) as having outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. Rivers may be designated by Congress or, if certain requirements are met, the Secretary of the Interior. Each river is administered by either a federal or state agency. Designated segments need not include the entire river and may include tributaries.

**wildlife habitat**—Environment in which organisms live and ideally provides elements needed for life and growth: food, water, cover, and space.

**wintering habitat**—Areas used by migratory birds during the winter; birds often return to the same wintering grounds year after year.





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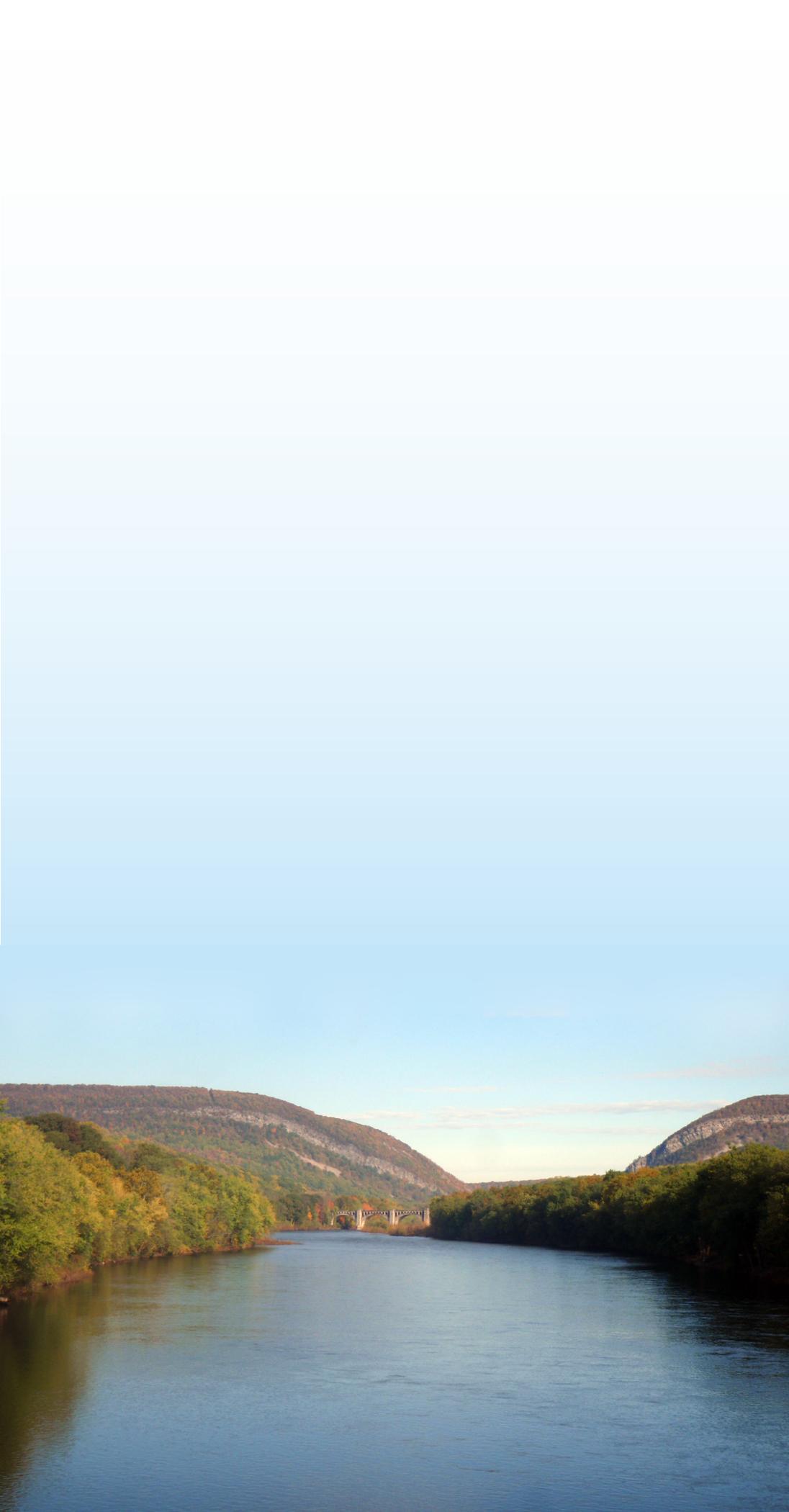
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