



MARYLAND DEPARTMENT OF THE ENVIRONMENT

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March 4, 2011

Potomac Electric Power Company (PEPCO)
Attn: Mark Okonowicz
P.O. Box 9239, Mail Stop #79NC64
Newark, DE 19714-9239

RE: Nontidal Wetlands and Waterways Application #: 09-NT-0036
Tidal Wetlands Application #: 09-WL-0762
Permit Tracking #: 200960462
Project: Pepco / Possum Point to Chalk Point / Utility Line
County: Charles & Prince George's

Dear Mr. Okonowicz:

The Wetlands and Waterways Program of the Maryland Department of the Environment ("The Department") has received numerous comments from other agencies, organizations, and individual citizens as part of the hearing record for the project referenced above. As you are aware, a Public Informational Hearing was held on January 24th, 2011 and the hearing record was extended to March 1, 2011 as a result of requests from interested persons. The Program has completed the review of these comments and requires additional information in order to address several items. In addition, items requested during our March 1, 2011 meeting to discuss outstanding items for the permit decision are summarized in this letter for your use. All comments will need to be satisfactorily addressed prior to a decision on the application.

Purpose and Need

The Department has received several requests for additional information regarding the Purpose and Need for this project. In order for the Department to authorize impacts to nontidal wetlands, their regulated buffers, waterways, and the 100-year floodplain, regulated activities must be determined to be necessary and unavoidable to meet the basic project purpose. As described in the Joint Permit Application (JPA) received October 4, 2010, the proposed project is intended to improve energy transmission flexibility and reliability as well as reduce energy costs for Southern Maryland and the Baltimore/Washington area through increased import capability and reduced congestion. Questions regarding the purpose and need for the project were also raised in comments from the US Environmental Protection Agency (EPA), as well as in comments from the Maryland Department of Natural Resources (DNR), and the public. The Department again requested during the March 1, 2011 meeting that Pepco provide documentation of the proposed project's ability to meet its intended purpose and a current need related specifically to the Baltimore/Washington area (i.e., independent of the rest of the MAPP Project). In response, Pepco provided a document ("Maryland Public Service Commission Response of the Staff to the Applicants' Motion for Reconsideration") at the meeting, which includes a statement regarding the economic benefits of the MAPP Project from Possum Point to Chalk Point. Please respond to the following with regard to this document:

- Does this represent the official position of the Maryland PSC?

- Provide the context of this document with respect to the PSC proceedings in Case No. 9179.
- Provide any supporting data that was used to determine these cost reductions.
- If available, provide any other documentation or explanation of the project's economic benefits.

With respect to the proposed project's ability to improve reliability in the Baltimore/Washington area, please provide detailed information which:

- Describes in detail the benefits of the proposed project (from Possum Point to Chalk Point) with respect to system reliability. This information can be similar to what Pepco provided in the September 14, 2009 letter in support of independent utility for the Burches Hill to Chalk Point segment. Any applicable supporting materials (for example, overview of the transmission system in the identified service area) should be referenced and included.

No specific documentation on a current need is included in the application materials submitted to date. This documentation would support the current need to install the second line authorized by the CPCN issued by the PSC in 1972. Such documentation could include:

- Evidence of increased population growth in the Baltimore/Washington area (which would support the need for greater electricity import and reliability)
- Evidence of higher costs in the region (which would support a need for economic relief).

The documentation requested above, along with PSC Order No. 59888 (already submitted by Pepco), would satisfy the requirement for the Department to consider information which supports that the regulated activity is necessary for a project to meet a demonstrated public need.

Alternative Sites Analysis

In the context of the Purpose & Need statements discussed in the preceding section, the Alternatives Analysis provided by Pepco on November 15, 2010 does not provide a sufficient number of, or information on, alternatives that could meet the project purpose. As such, questions were raised during the comment period by EPA, DNR, Community & Environmental Defense Services (CEDS), as well as other organizations and individuals, regarding the adequacy of the Alternative Sites Analysis. Additional alternatives suggested for further consideration included the northern alternative for the overall MAPP project (north of the Chesapeake Bay), installation of an underground HVDC circuit for Southern Maryland or selective use of undergrounding, crown reduction instead of clear cutting, upgrading smaller substations and existing transmission lines, and strengthening/modification of the existing towers so that the second circuit could be accommodated within the existing cleared right-of-way. Pepco must provide a revised Alternative Sites Analysis that addresses these comments and demonstrates that the proposed project is the least detrimental and most practical alternative. The following information must be included in the revised analysis:

- Identification of the overall area where the project purpose can be accomplished.
- Within this area, other alternatives that were considered that could meet the project purpose. These could include new generation facilities (if any are proposed) or right-of-way, and general discussion of associated environmental impacts and constraints; identification of existing transmission locations for increasing import capability or reliability in the region and overview of environmental impacts and constraints; and different project configurations within identified alternatives that may reduce impacts or alleviate constraints.
- Within the existing alignment, descriptions of different project configurations that were considered or have been suggested (such as an underground circuit or tower modification), their feasibility, and a more detailed comparison between these alternatives and the impacts as proposed.

- Additional justification for rejection of the alternative Potomac Crossing location recommended by the State of Maryland in its December 4th, 2009 letter to the PSC. This alternative was determined to be technically feasible by Pepco. Additional justification must include a detailed comparison of impacts from both alternatives to environmental resources in this area, discussion of constraints for both alternatives, and a comparison between the costs of implementing the recommended alternative and the costs of fulfilling mitigation requirements for the existing proposal.

Avoidance and Minimization

If the alternative site analysis is accepted, the applicant must demonstrate that adverse impacts to nontidal wetlands, their regulated buffers, and the 100-year frequency floodplain are necessary and unavoidable. A comprehensive Avoidance and Minimization Analysis, which incorporates already submitted information with respect to general mat and bridge locations, is required. The Department has also identified wetland areas where Pepco must investigate further avoidance and minimization measures (both during and after construction) within the project area. A list of these areas is included as Attachment 1. These areas were identified through review of the Functions and Values Reports provided on November 23, 2010, subsequent responses from Pepco on February 7, 2011, aerial photography, GIS data, project mapping, and field observations. All avoidance and minimization measures to be implemented during construction activities of the project must be reflected on the project plans (including impact sheets and Forest Harvest Plans). Pepco must identify specific locations and mechanisms for implementing further avoidance and minimization efforts.

In general, impacts related to temporary matting should be avoided to the extent possible so that wetlands within the right-of-way remain undisturbed. Although Pepco has demonstrated minimization of the amount of stringing sites within the project area, more information is needed on how avoidance of matting impacts will occur in these sensitive areas during construction. Similarly, Pepco must identify clearing methods that will maintain the riparian buffer in areas where water quality must be maintained in its current state. Selective clearing was discussed in the Environmental Review Documents for the project and in other application materials, but statements made at the January 24, 2011 hearing indicate that a clear-cutting approach is proposed. These methods could include (but are not limited to) crown reduction, selective clearing to leave snags for habitat, maintaining all understory vegetation less than 10 feet in height, and/ or replanting with appropriate shrub species in areas where alternative methods are not feasible.

The project covers a large area with a high number of very significant resources (as identified in DNR's comments); for this reason, it is critical that Pepco develop a comprehensive assessment of avoidance and minimization measures and provide detailed plans for implementing these measures prior to a decision on the project. The general approach to avoidance and minimization previously provided is not suitable, given the unique resources within the project area. Pepco should coordinate with the local Soil Conservation Districts to develop more detailed methods for selective clearing and clearing by hand, which ensure that unnecessary impacts to regulated resources are avoided. Special attention should be paid to access and topography in these areas, identification of compatible vegetation, methods for clearing vegetation, and methods for removal of vegetation from these areas to upland areas for chipping. Please provide the following to demonstrate that these methods have been incorporated into the project plans:

- Detailed methods for selective vegetation clearing and clearing by hand, with reference to the specific types of resources where additional methods will be incorporated. These can be incorporated through either revisions or attachments/addendums to the Forest Harvest Plans.
- Provide an assessment of impacts and applicable avoidance, minimization, and restoration measures for each wetland listed in Attachment 1.
- Pepco shall clear by hand (i.e., no machinery within the wetlands) within the Zekiah Swamp Wetland of Special State Concern (WSSC, includes BC-045 and BC-054), and selectively clear within the 100-foot buffer of all WSSCs.

- The Department has requested the use of a bridge several times during field visits at the crossing of BC-045; this area contains flowing water across the access road and cannot be matted during construction. In addition, MDE will incorporate a special condition that Pepco shall apply within 1 year of permit issuance to repair this crossing. This will include a commitment by Pepco to conduct the necessary engineering studies to ensure current hydrologic conditions and adequate passage of aquatic life is maintained at this crossing. Please provide revised plans which show the matting removed and a bridge identified in this location.
- Pepco shall investigate the least detrimental mat locations for stringing sites in wetlands WL-035, WL-040, WL-055, WL-110A, BC-057, and BC-082. Reduced matting limits must be shown on project plans.
- BC-080 contains a large amount of open water and an assessment of whether matting or temporary bridging is appropriate should be conducted.
- Please confirm whether all impacts to WL-172 (as identified in the Possum Point to Burches Hill portion) and PB-109 (as identified in the Burches Hill to Chalk Point portion) are accounted for in the impacts table. This is the large wetland system draining to Piscataway Creek located near the Burches Hill Substation, which is impacted by both segments of the project.
- Provide revisions to the impact tables and project plans as necessary to reflect all additional avoidance measures.

In addition, the Department received several comments regarding the proposed project's impacts to wetland-dependent wildlife, and must consider the following factors with when assessing avoidance and minimization for a project:

- Harm to a threatened or endangered species or species in need of conservation, or to the critical habitat of these species.
- Movement of wildlife indigenous to the nontidal wetland or water body.
- Ability of the nontidal wetland to continue to support and provide habitat for those species of wildlife using the area.

Comments from Audubon Maryland-DC and stress the importance of forested wetlands for certain bird species. As the Audubon Maryland-DC comments point out, many of the bird species found in forested wetlands in this part of the State are in decline, as opposed to species known to inhabit scrub-shrub and emergent wetlands in this area. The project also crosses the Mattawoman Creek Important Bird Area (IBA).

Comments from the Sierra Club identify to the loss of vernal pools as a concern for the project, with specific reference to the effects of deforestation on the hydrologic conditions necessary to sustain these areas. Kelly Neff of the Mitigation Section requested additional information in email correspondence dated February 17, 2011 (reiterated in Attachment 2) on identification of vernal pools within the project area and assessment of the potential impacts. Recommendations are also provided with respect to sites identified in the Phase I Mitigation Plan which may provide opportunities to mitigate for these impacts.

It is understood that maintenance of the existing forest habitat is not compatible with installation of the new transmission line; however, the following information is needed to address these comments:

- Describe in detail measures that can be undertaken during construction to avoid direct impacts to wildlife, and especially the species discussed above (these could include time of year restrictions, BMPs, or specific clearing methods to maintain habitat where possible).
- Discuss how existing wildlife corridors within the right-of-way will be restored after construction activities, and any impacts to wildlife migration that can be expected to result from the increased right-of-way width.

- Describe how the proposed mitigation plan will serve to preserve, enhance, or create suitable habitat for the wildlife species discussed above.
- Summarize BMPs implemented in response to DNR Wildlife and Heritage Division's previous comments on the project.

Water Quality

The Department is prohibited from issuing a nontidal wetlands authorization unless it can determine that the project will not violate Maryland's water quality standards. MDE must also issue a Water Quality Certification certifying that federally authorized activities for this project will not degrade water quality. Additional comments from Science Services Administration in response to Pepco's February 28, 2011 Tier II letter are included as Attachment 3. Based on Pepco's statements at the March 1, 2011 meeting, these items are anticipated to be received by the Department early the week of March 7th. The adequacy of these will be determined once they are received and reviewed. Please note that additional items requested for Zekiah Swamp Run 1 and Mattawoman Creek 1 (which were recently determined to have no remaining assimilative capacity) can be incorporated as a permit special condition (i.e., not required for decision). The Department will require Pepco to provide the following with respect to these new requests:

- Timeframes, for satisfying all of these requirements, including mitigation offsets, discharge analysis, and monitoring.

Pepco is also required to provide a plan demonstrating restoration methods for wetlands and streams impacted by construction activities, as requested during the March 1, 2011 meeting and in the Restoration Plan Guidance memo (Attachment 4). The Nontidal Wetlands and Waterway Construction Divisions concur with SSA's concerns regarding mulch depth, especially in riparian areas where quick revegetation of the entire right-of-way is optimal for water quality. In response, please provide the following:

- Identification of the maximum depth of mulch proposed to be spread in upland areas of the right-of-way (Forest Harvest Plans state 8" maximum, Environmental Review Documents and Pepco's Integrated Vegetation Management Plan state 3" maximum).

Pepco is required to submit Forest Harvest Plans, which incorporate all outstanding comments from the Department, to both Prince George's and Charles County Soil Conservation Districts for either approval or exemption. Because Pepco cannot begin work in the Possum Point to Burches Hill segment of the project until a CPCN modification is received for the Potomac River Crossing, the Department would be willing to accept the following in order to demonstrate that direct impacts to water quality have been avoided or minimized to the extent possible:

- SCD-approved (or exempted) Forest Harvest Plans for both the Charles County and Prince George's County portions of the Burches Hill to Chalk Point segment, which incorporate all previous Department comments and applicable recommendations in this letter and attachments.
- Draft Forest Harvest Plans for both the Charles County and Prince George's County portions of the Possum Point to Burches Hill segment, which incorporate all previous Department comments and applicable recommendations in this letter and attachments.
- Off-site access roads and appropriate BMPs shown on the plans.

The right-of-way crosses many riparian corridors, and direct construction impacts to streams have been minimized through the use of temporary bridges. The majority of waterways crossing the project area are perpendicular to the right-of-way and most waterways are currently forested in the area of the proposed second circuit. Generally the canopy would be removed from approximately 100 linear feet of stream in these areas (based on the width of right-of-way to be cleared). In most cases, clearing vegetation from these waterways should result in minimal individual

impacts, especially if these areas are properly stabilized and if the areas upstream and downstream of the project area remain forested. However, due to the large number of crossings within the right-of-way and concern for cumulative impacts to water quality, an assessment of these types of impacts is needed for each watershed. Delineated waterway boundaries and forest cover can be used to determine where these impacts occur. Depending on the extent of clearing proposed in certain watersheds and potential cumulative impacts to water quality, plans may need to be developed to demonstrate post-construction restoration of these areas. This will be determined in coordination with DNR. Please provide the following item to assist in assessment of these impacts:

- Tables showing estimated total linear feet of all waterways for which the canopy is proposed to be removed, calculated for both 12-digit and 8-digit watersheds (include watershed codes, as well as stream names).

Significantly longer stream segments are proposed to be cleared of vegetation in some areas due to their morphology or location within the right-of-way. In these areas, removal of the canopy from individual stream segments could result in greater thermal impacts, as well as greater risk of direct impacts from sediment and pollutants during right-of-way management activities. These locations may be candidates for restoration plantings to maintain water quality. Specific minimization or restoration methods should be assessed for these areas individually, and in coordination with DNR since recommended methods may be dependent on certain fish or aquatic species present within individual stream segments. Areas where a significant portion of currently forested (or partially forested) waterway is proposed to be cleared of vegetation within the right-of-way are listed below (by Waterbody ID, Environmental Features Map number, and linear feet of tree canopy loss estimated using Environmental Features Mapping):

- Moss Point to Burches Hill
WC-002 (Map 1, 400 linear feet- also in Critical Area)
WC-012 (Map 10, 200 linear feet)
WC-032 (Map 34-35, 1600 linear feet)
WC-038 (Map 40, 600 linear feet)
WC-045 (Map 48, 200 linear feet)
WC- 057 (Map 56 & Map 57, 700 linear feet & 400 linear feet, respectively)
WC-063 (Map 71, 200 linear feet)
WC-064 (Map 71, 800 linear feet)
WC-068 (Map 76, 250 linear feet)
- Burches Hill to Chalk Point
WBBC-018 (Map 13, 400 linear feet)
WBBC-07A (Map 26, 450 linear feet)
WBBC-014A (Map 48, 400 linear feet)
- Please provide accurate information on linear feet of canopy loss using GIS/project data for these segments as well as any other segments with significant canopy loss, and identify areas by stream name & watershed.
- Please identify a process for coordinating with the agencies, and any restoration measures that may be appropriate.

In some areas, the right-of-way is in alignment with very large riparian corridors. Please refer to Attachment 5, which provides the Overview Maps where these impacts occur. Impacts in these areas, especially clearing activities, could result in greater overall decreases in water quality in the watershed due to removal of a larger portion of the riparian buffer. For this reason, clearing activities in both wetlands and uplands occurring in these locations should be conducted more selectively to maintain the riparian buffer. As mentioned previously, methods for selective clearing should be clearly identified in or included with the Forest Harvest Plans to ensure that

clearing occurs in this manner. Areas where larger riparian impacts are likely to occur (identified by mile point) include:

- PPBH 9.5 - 10.2
 - PPBH 10.5 - 12.4
 - PPBH 14.7 - 16.3
 - PPBH 20.5 - 21.8
 - PPBH 29.9 - 30.3 & BHCP 0.25 - 0.7 (same area)
 - BHCP 13.8 - 14.25
 - BHCP 14.5 - 15.1
 - BHCP 16.1 - 16.7
- Please identify applicable methods (such as BMPs or selective clearing) for maintaining water quality in these areas during construction. Also identify appropriate restoration measures that will occur post-construction to ensure that water quality in these riparian corridors will be maintained.

Extensive comments with respect to impacts on fisheries/aquatic life were provided by DNR, Mattawoman Watershed Society, Sierra Club, and many individuals. In order for the Department to authorize a regulated activity, the activity may not cause an individual or cumulative effect that degrades:

- Aquatic ecosystem diversity, productivity, and stability
- Plankton, fish, shellfish, and wildlife
- Recreational and economic values

Several of the listed items were specifically mentioned in comments received by the Department (for example, the economic importance of bass fishing tournaments in the Mattawoman Creek). The preceding request for quantification of cumulative impacts to waterways will assist the Department in assessing these impacts and potential minimization measures, in coordination with DNR. A "Fisheries" section was included in the Environmental Review Documents for the project; however, more detail is needed to assess potential impacts. Please provide the following items to assist in this determination:

- A plan for coordination with DNR to address concerns related to fisheries and aquatic life.
- Revised "Fisheries" sections of the Environmental Review Documents provided with the original JPA, which addresses potential impacts to specific fisheries/aquatic life concerns raised in DNR & public comments (for example, potential impacts to benthics and other aquatic life, and discussion of economic impacts).

Mitigation

A Phase I Mitigation Plan has been approved (subject to conditions, including clearance of the proposed sites for RTE & historic issues). However, questions about the adequacy of the proposed mitigation have been raised during the public comment period by EPA and other organizations, and these will need to be addressed. An e-mail was sent by Kelly Neff to Pepco and EntriX on February 17, 2011 with specific questions to address related to public comments received and outstanding information; the requests from this e-mail and additional comments are provided in Attachment 2. Please provide a response to these comments.

Cumulative Impacts

Information needs for cumulative impacts to waterways/watersheds are addressed in the Water Quality section. With respect to cumulative wetland impacts, please provide an additional impacts table which includes:

- Wetland and wetland buffer impact totals by watershed, including both permanent and temporary impacts.

ATVs

Comments from Sierra Club indicate concern for potential impacts from All-Terrain Vehicles (ATVs). Evidence of right-of-way use by ATVs has been observed during field visits, and has implications for both avoidance and minimization and water quality. Many wetlands and waterways in the right-of-way may be degraded due to repeated use by ATVs and could be candidates for appropriate crossings. The clearing associated with this project will also open up new areas of wetlands and waterways to potential degradation from ATVs. In response to these concerns, please provide the following:

- Provide methods for identifying any locations where ATV use is causing existing degradation to resources in the right-of-way. This plan should include a commitment to restore or upgrade crossings that have become significantly degraded, if these areas exist.
- Provide a plan to minimize future degradation from ATVs. Although complete exclusion may not be possible, exclusion devices may be appropriate in some sensitive areas and must consider wildlife passage. Other methods may include posting signs where appropriate, coordination with local authorities, or outreach to local communities.

Invasive Species

- Identify methods for decreasing the potential spread of invasive species during construction and during future maintenance activities.
- With respect to comments on the proximity of known locations of wavy-leaf basketgrass to the project area, it may be appropriate for Pepco to develop a plan to identify any infestations within the right-of-way during construction as well as eradication methods. This plan could include education of contractors and identification of the appropriate agency coordination commitments for reporting and eradicating any infestations.

Tidal Wetlands Review

As discussed during our March 1, 2011 meeting, several items are outstanding for the Tidal Wetlands Review of the Potomac River Crossing. Please refer to Attachment 6 for these items, and provide a response.

Other Approvals

As discussed during our March 1, 2011 meeting, many other approvals are required for work to proceed on this project and in order to satisfy landowner requirements as well as a Federal Consistency determination, pursuant to Section 307 of the Federal Coastal Management Act, from the Department. Please provide copies of any approvals, exemptions, correspondence, or status updates with respect to the following:

- Forest Conservation Act Approval.
- State Highway Administration (SHA) utility permits, easements, or detailed property boundaries showing no work occurring in SHA right-of-way, as well as similar items for Charles and Prince George's Counties
- Copies of landowner permission for construction access on private property and DNR land (refer to February 28, 2011 DNR letter); required unless Pepco can successfully demonstrate that no regulated activities will occur in these areas.

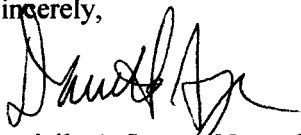
A complete package of all comments received during the public comment period is included in Attachment 7. The Department looks forward to receiving the responses and materials necessary to

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complete our review of your application. If you have any questions regarding this letter, please contact me at 410-537-3731 or dlange@mde.state.md.us.

Sincerely,



Danielle A. Lange, Natural Resources Planner
Nontidal Wetlands and Waterways Division

Cc: Bob Summers, Maryland Department of the Environment, Acting Secretary
Jay Sakai- Director, MDE Water Management Administration
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Greg Golden, DNR Environmental Review Unit
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