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FEDERAL ENERGY  
REGULATORY COMMISSION

October 30, 2015

 ORIGINAL

Kimberley D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE, Room 1A  
Washington, DC 20426

**Re: Tennessee Gas Pipeline Company, L.L.C.**

**Docket No. PF14-22-000: Northeast Energy Direct Project**

**Comments of Northeast Energy Solutions, Inc. Regarding Draft Resource Reports  
Dated July 24, 2015**

Mr. Secretary Bose:

Northeast Energy Solutions, Inc. (NEES) respectfully submits the following comments regarding the Tennessee Gas Pipeline (TGP) Draft Resource Reports, dated July 24, 2015 (July Report), for the proposed Northeast Energy Direct (NED) project. In addition to new analysis, NEES' comments continue to highlight defects and inaccuracies unremedied from the March Resource Reports, and include requests for clarifications of discrepancies and identification of information that remains missing and inaccurate in the July Reports.

Throughout this document, unless the July Report is specifically referenced or identified, "Report" shall mean the March 2015 draft Resource Reports.

NEES believes its comments must receive thorough and accurate responses before reviewers can prepare a draft environmental impact statement for the proposed project.

## **RESOURCE REPORT 2: Water Resources**

### **Failure to present most recent data:**

- 2.2.9.3: Report indicates that vernal pools are Outstanding Water Resources (ORWs) in Massachusetts, and that 77 certified pools exist within 750 feet of the project based on MassGIS data. This is a conservative estimate which does not take into account the availability of MassGIS's potential vernal pools layer. Said layer should also be considered and used to inform surveying in spring 2015. (p. 2-85)
  - o The July Report's Section 2.2.1.3 indicates that 88 potential vernal pools (PVPs) exist within 750 feet of the project in the Massachusetts portion.
  - o Report indicates that spring field surveys will begin in 2015. At this time, most MA landowners have not granted access for survey. How will vernal pool condition be taken in to account without the survey consent of all impacted landowners?
    - Section 3.2.2.3.11 indicates that "qualified biologists performed vernal pool surveys on all properties where access was available" (p3-43). The July Report still does not indicate how vernal pool conditions will be taken into account without knowing of their presence on the remaining 90% of miles of un-surveyed land in Massachusetts (Tables 1.1-1, p1-18; 1.2-7, p1-73).

### **Inaccurate Information**

- Table 2.2-2: TGP reports that the Wright-Dracut section will cross 36 perennial streams and 29 seasonal streams in Massachusetts. TGP likely uses USGS 1:25,000 Hydrography data available from MassGIS for this analysis. While correct based on that data, NEES is aware of additional, un-mapped perennial streams on the Shallcross APR which will be impacted by

the pipeline. It is understood among natural resource managers that large-scale datasets like the USGS 1:25,000 hydrography do not describe the full range of relevant features in a given area. Such is especially true regarding conservation land, where more detailed information may be available from local, credible organizations. Certainly, finer scale data should be used. Plus, only drawing from a single 123 acre property illustrates that TGP is underestimating the impacts of their proposed pipeline on fragile resources like seasonal streams. (p. 2-30)

- This section of the July Report remains largely unchanged; however, in comparison to the March Report, Table 2.2-2 now cites different numbers of perennial stream crossings, intermittent stream crossings, and “Unknown/Other Crossings.” The data sources for both tables remains the same, so it is unclear why these numbers have changed (USGS 2015). With such a small percentage of areas surveyed (approximately 10%, Tables 1.1-1, p1-18; 1.2-7, p1-73), it is likely that the number of “unknown/other crossings” in Massachusetts will substantially increase (Table 2.2-2, p2-30). As mentioned in NEES' earlier comments, insufficient data is still being relied upon.
- Various (p. 2-34, 2-55, 2-63, 2-85): TGP remains inconsistent when describing the status of consultations with Massachusetts Division of Fisheries & Wildlife (MADFW) regarding fisheries that will be impacted by the pipeline. TGP sporadically reports on results of such consultations.
- Also, TGP uses un-referenced, inconsistent, and conflicting conjecture to arrive at certain determinations. Such noticeable inconsistencies make it difficult for a reviewer to determine actual impacts the proposed project may have on important cold-water streams, a fragile type

of natural system, which could be disproportionately affected by the proposed project (see UMass Amherst's 2015 pipeline impacts analysis).

- 2.2.1: Consultations with MADFW to determine impact to cold-water and other important fisheries listed as “initiated.” Status suggested to be “ongoing.” (p. 2-34)
- 2.2.1.3: Consultations to determine warm water and cold-water fisheries crossed by project listed as “pending at time of this report.” In MA, all waters are assumed to be warm water fisheries unless proven otherwise, and designated cold-water fisheries data is publically available. “Ongoing consultations” may be underway, but the data needed to make this determination was publically available at the time the report was written. (p. 2-55)
- Section 2.2.9.3 of the July Report indicates that “Tennessee is still awaiting consultation from MADFW to identify warmwater and coldwater fisheries crossed by the proposed project as of the date of the resource report and will provide updated information in the final ER.” As evidenced by figures now present in Table 2.2-6, data indicating the presence of coldwater and warmwater fisheries is publically available via GIS. The aforementioned quote appears to be outdated and is unclear (p2-55). This failure to provide consistent, clear information makes it difficult for readers to understand the impacts of the proposed project.
- 2.2.1.3: TGP indicates that fishery designations from its “pending” consultation with the Massachusetts Department of Fish & Game are listed in this report in table 2.2-6. (p. 2-55)
  - Table 2.2-6: table lists most MA fisheries as class B water quality designation, and does not list cold-water designation for known cold-water streams. This



reviewer to notice, and could lead to the erroneous conclusion that few of the significant water bodies impacted by this project are cold-water streams.

- The July Report's Table 2.2-6 now indicates various classifications such as B, HQ, and CFR, but it fails to indicate the meaning of these abbreviations. Such information is integral for a layperson to understand the types of resources being affected. Furthermore, footnote 7 only indicates "water quality classification as available through a desktop review of available GIS data layers," but fails to cite specific data sources, which exist for each GIS data layer used (Table 2.2-6, p2b 29 through 2b-36). By failing to provide transparent information, TGP is failing to present clearly understandable information to the public.

### Transparency

- 2.1.2: Report states that release valves (MLVs) will be built within the 50 foot buffer region to minimize impacts on groundwater resources. Further details on planned location for said valves are not provided. As such, it is nearly impossible to conduct review of potential impacts. (p. 2-14)
- In the July Report, p2-15, 2.1.2:
  - o "MLV assemblies will be installed *entirely within* the proposed permanent ROW. For this reason, the groundwater resources associated with the MLVs and the potential impacts of these facilities on groundwater resources will be the same as those associated with the corresponding pipeline segments."

- “For the Project, Tennessee proposes that MLVs will *generally* be installed and operated within the proposed permanent right-of-way (“ROW”) associated with the applicable pipeline segment(s).”
  - Therefore, the July Report is not consistent with regard to “entirely within” vs. “generally.” As such, it remains unclear whether MLVs will be installed within the proposed ROW or in the buffer region (as indicated in the March report).
  - Further, in the July Report, Table 1.1-5 still indicates the proposed location (mileposts) for the MLVs, however, this table is not referenced in section 2.1.2 of RR2.
- P 2.2.1: Landowners who have granted survey rights to TGP can request an expert review of springs or seeps within 150 feet of the proposed construction area to determine if there could be negative impacts to groundwater. An affirmation should be made that landowners who do not grant survey rights will receive the same expert review. (p. 2-20)
  - In the July Report, this section is now referenced as section 2.1.6, and states that “[n]o springs utilized for drinking water were specifically identified during initial landowner consultations or field surveys. Additional surveys and landowner contact to re-confirm the location of wells are ongoing. If requested by the landowner, any seeps or springs located within 200 feet of construction workspaces will be reviewed by an expert in the field to make a determination as to whether the normally planned construction activities will have any impact. If any impacts are anticipated to occur, the expert will recommend construction alterations to avoid impacting seep or spring areas.”
    - It is still unclear whether review will be available contingent upon landowner’s granting survey rights. Note that the July Report cites “landowner consultations or

field surveys” as yielding no known springs, it does not indicate whether seeps have been found. Furthermore, only 40% of Massachusetts landowners have granted survey access (Table 1.2-6, p1-63), and to date, 90.73 miles of 101.08 (Table 1.1-1, p1-18) remain non-surveyed. (Tables 1.1-1, p1-18; 1.2-7, p1-73)

### Insufficient explanation

- 2.2.7: Details for sourcing and disposal of water for hydrostatic testing is vague. This makes it difficult to judge whether certain water bodies are at risk. TGP indicates that water will not be drawn from or released into high quality streams. Details on how high-quality designation will be determined are not provided. Are cold-water streams “high quality,” even if ranked as class B water quality resources? TGP’s inconsistent summary of water quality and ecological integrity measures for impacted water bodies renders unclear what factors determine a stream’s suitability for withdrawal of water. (p. 2-79)
- Section 2.2.7 of the July Report remains unclear regarding how discharge locations will be determined. “In accordance with Sections VII.C.2 and VII.D.2 of the Procedures, hydrostatic test water will not be obtained from, or discharged to, designated HQ streams unless approved by the applicable state permitting agency” (p2-48). TGP still fails to define “HQ” designation.
  - o The Report cites Appendix H for further details about hydrostatic testing water withdrawals and release. Appendix H (p. 19) indicates only that 48-hour notice will be given to state agencies in advance of drawing water from a specific stream. This is far too little notice for NEES and other reviewers to determine if waters, in which it has a direct interest, will be impacted by hydrostatic testing.

- The July Report's Appendix H remains sparse regarding the process of hydrostatic testing. Notification of state agencies remains 48-hour; notification/permission of private landowners is not addressed (H-14). Furthermore, Section VII.C.3 "Intake Source and Rate" only indicates that the process will "maintain adequate flow rates to protect aquatic life, provide for all waterbody uses, and provide for downstream withdrawals of water by existing users" (H-14). Furthermore, "adequate flow rates" is vague and fails to quantify the amount of water uptake used for hydrostatic testing and provides an unclear illustration of how testing will influence water flow for public, private, and ecological interests.
- 2.2.10.1: TGP lists a range of habitat manipulation activities which may be undertaken to facilitate crossing water bodies, which include diverting the flow of streams. Indication is not given on how stream diversion sites will be selected. Sites where significant habitat manipulation is to be undertaken should be identified by TGP, for review by interested parties, well in advance. (p. 2-89)
- The July Report continues the failure of not explaining the conditions that would warrant diverting stream flow during construction (2.2.10.1, p2-60).

### **RESOURCE REPORT 3: Fish, Wildlife, and Vegetation**

#### **Failure to present most recent data:**

- Table 3.1-3 Representative Game and Commercial Fish Species That May Occur in the Project Area Water bodies in Massachusetts. (p. 3-7)
  - The data cited for this table is outdated – Mugford 1969.

- Why wasn't more recent data used, such as that from BioMap2, Eastern Brook Trout Joint Venture, or Mass. Div. of Marine Fisheries Anadromous Fish Runs?
- The July Report has updated Table 3.1-3 has been; however, it is not evident that all available data was used.

**Inaccurate Information:**

- Table 3.1-3 Representative Game and Commercial Fish Species That May Occur in the Project Area Water bodies in Massachusetts. (p. 3-7)
  - Tessellated darter is listed as a game species – this is not a game species.
  - The July Report no longer includes tessellated darter as a game species in Massachusetts.
- 3.1.2.4 Fisheries of Special Concern: Massachusetts Programs. (p. 3-12)
  - Citing UMass River and Stream Continuity Project Data (UMass 2010),<sup>1</sup> TGP states that the pipeline will include “21 crossings” of high-quality streams in segment G.
    - Based on NEES’ review of this same data, there are 31, not 21, instances in which the proposed pipeline crosses high-quality streams in segment G.
    - Citing this same data, TGP states that the pipeline will include “3 crossings” of high-quality streams in segment H.
    - Based on NEES’ review of this same data, there are 5, not 3, instances in which the proposed pipeline crosses high-quality streams in segment H.

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<sup>1</sup> [https://www.streamcontinuity.org/assessing\\_crossing\\_structures/prioritizing\\_streams.htm](https://www.streamcontinuity.org/assessing_crossing_structures/prioritizing_streams.htm)

- Although the July Report cites the UMass data, in general, (“In addition to the Coldwater Fishery Resources designations, the University of Massachusetts [“UMass”] Amherst has developed a list of HQ streams in Massachusetts [UMass 2010]”), TGP fails to mention how this project impacts high-quality streams in MA. Instead of clarifying prior data about how the proposed project would affect high-quality streams, TGP, now, completely avoids addressing this data.
- 3.2.1.1 Wildlife Resources: Upland Forest. (p. 3-18)
  - In describing tree ecoregions of the area, TGP states, without citation, that “Soils are usually moderately well to well-drained and often nutrient poor.”
  - Data for Massachusetts soils indicates that, within a 100’ buffer of the pipeline, approximately 247 acres of the total 870 acres, or nearly one-third of soils, are considered Farmland of Statewide Importance or Farmland of Unique Importance.<sup>2</sup>
  - Stating that soils are “often nutrient poor” without citing data is an overtly gross misrepresentation of the actual resource conditions.
- 3.2.2.3.11 Massachusetts BioMap2 Data. (p. 3-47)
  - The Report states that 16 miles of Core Habitat are crossed and 20 miles of Critical Natural Landscape are crossed. This is inconsistent with available GIS data which shows that 18.6 miles of Core Habitat and 26.5 miles of Critical Natural Landscapes are crossed.<sup>3</sup>
  - The July Report omits statements regarding soil quality.

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<sup>2</sup> <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/soi.html>

<sup>3</sup> [https://ag.umass.edu/sites/ag.umass.edu/files/research-reports/pipeline\\_natural\\_resources\\_assessment\\_mainline\\_april\\_2015.pdf](https://ag.umass.edu/sites/ag.umass.edu/files/research-reports/pipeline_natural_resources_assessment_mainline_april_2015.pdf)

**Transparency:**

- 3.1.2.4 Fisheries of Special Concern: Massachusetts Programs. (p. 3-12)
  - o Citing UMass River and Stream Continuity Project Data (UMass 2010),<sup>2</sup> TGP lists 29 high-quality streams crossings. This data source does not give unique identifiers to water bodies, so it is unclear whether TGP is counting the number of crossings or the number of unique water bodies crossed.
  - o The July Report includes a comprehensive table that outlines the specific location of each water body crossing in Massachusetts, including Class B and warm water fisheries crossings. Section 3.1.2.4 does not mention crossing high-quality streams, instead only mentioning cold water crossings. The discussion of the data is potentially misleading often confusing number of streams crossed and number of crossings. For example, the report cites “Coldwater Fishery Resources-designated streams are crossed a total of 34 times in Massachusetts” and then “The Project also crosses 31 streams that are tributaries to CWF streams” (Section 3.1.2.4, p3-13). By first quantifying stream crossings and later the number of streams crossed, the report misleads that the project has 31 crossings over tributaries to CWF streams, when in reality, this number may be much larger. Table 2.2-6 (p2b-29) does not clarify either.
  - o The July Report’s Table 2.2-6 Waterbodies Associated With the Project in Massachusetts uses a column to identify “Water Quality Designation/Fishery Classification.” While each waterbody is given a classification (B/HQ/CFR), the table endnote only notes that “Water quality classification was identified through a desktop review of available GIS datalayers.” It is unclear how these water bodies are assigned these designations. Prior sections of the July Report 3 also fail to explain how high-

quality streams are defined and how many crossings there are in relation to the proposed project (p3-7).

- 3.1.3 Construction and Operation Impacts

- TGP cites several temporary impacts to fisheries that will depend on several factors, including “construction technique utilized.” In the subsequent paragraph, after discussing cases of a presumed dry crossing where continuous standing water with a discernable flow may be present, TGP states that “field determinations will be made at the time of crossing.” Further paragraphs state that “there is the potential that field conditions will not allow a dry crossing method and an open cut crossing will be necessary.” (p. 3-14)
  - Despite not knowing which type of crossing they will be utilizing, TGP assures FERC that “impacts will be temporary.” This presumptuous statement is indicative of TGP’s failure to obtain necessary information prior to making claims regarding project impacts. (p. 3-14)
- The July Report’s section 3.1.3, “Construction and Operation Impacts,” offers significantly less clarity than the March Report regarding the stream crossing methods that will be used in the project area. While the March Report identified that “field determinations will be made at the time of crossing,” the July Report fails to identify under what conditions each crossing method will be used and when the decision will be made on which method will be appropriate. By failing to identify the type of crossing to be used on each water body, TGP avoids addressing the actual impacts that may occur to these water bodies. The March Report mentions the

potential for wet open cut crossings, which are not included in the July Report (p3-15).

- 3.1.2.4 Fisheries of Special Concern: Massachusetts Programs. (p. 3-15)
  - o TGP states that “No direct impacts to wetland or water bodies containing fishery resources are expected to result from construction and operation of these project facilities [compressor stations, meter stations, MLVs, pig launcher/receiver facilities, and pipe-yards/contractor yards].”
  - o A subsequent sentence states that “impacts will be avoided and minimized by using existing roads.” *The use of the word “minimized” implies that there will indeed be impacts that have not clearly been described in the aforementioned statement.*
  - o The July Report’s section 3.1.3 “Construction and Operation Impacts” discusses the impacts of Project facilities, TGP states that “Impacts to wetlands, waterbodies and other sensitive areas will be avoided and minimized to the extent practicable during site evaluation” (p3-17). This statement inconsistent with a subsequent claim, which states that “no direct impacts to wetlands or waterbodies containing fishery resources are expected to result from construction and operation of these Project facilities” (p3-17). The use of the word “minimized” in the prior statement indicates that there may indeed be some impacts generated by the proposed project.
  - o This section also notes that “A final selection of facility locations and ARs (access roads) will be provided in the final ER” (p3-17). By failing to provide sufficient data at the time of this draft submittal, TGP provides insufficient time for agencies, organizations, and landowners to evaluate the impacts to ecological resources.
- 3.2 Wildlife Resources. (p. 3-17, p. 3-34)

- TGP states that this section identifies several areas of conservation value, including “sensitive wildlife areas,” but does not provide information as to how “sensitive wildlife areas” are defined.
- The July Report’s section 3.2 also refers to “sensitive wildlife areas,” however, it still fails to adequately define this classification, only slightly expounding with “sensitive wildlife areas (e.g., Important Bird Areas [‘IBA’s’])” in lieu of providing a full definition (p3-19). In view of the comprehensive data covering sensitive habitats that is readily available (for example, BioMap2 and Natural Heritage Program), TGP’s failure to incorporate such into a clear definition of “sensitive wildlife areas” is objectionable.
- TGP reports of consulting several state and federal agencies, including “some private organizations” but fails to explain why certain organizations were or were not contacted.
  - Therefore, it can be inferred from such a practice of selectively contacting private organizations is an intent to only provide data that supports a particular position.
  - Unfortunately, the July Report’s section 3.2 still inadequately fails to explain why certain organizations were or were not contacted. This section states that “Consultations with federal, state, and local agencies, as well as the National Audubon Society (2013) (i.e., for information specific to IBAs) have been conducted to supplement the desktop analysis” (p3-19). It’s clear that thorough analysis has not been conducted regarding local agencies, given the fact that the National Audubon Society is not relatively active in this sphere.

In Massachusetts, the Important Bird Area program is carried out by Massachusetts Audubon Society, an organization that was not mentioned in TGP's classification of "sensitive wildlife areas." Furthermore, conservation organizations having sensitive habitat that may be directly affected by the proposed project – such as the Franklin Land Trust, and Mount Grace Land Trust, among others – have not been consulted regarding how the pipeline may affect wildlife resources.

- 3.2.1 Wildlife Resources: Existing Resources. (p. 3-17)
  - o "Wildlife species likely to occur in each habitat type were determined by direct observation during field surveys, consultations with local wildlife experts, regulatory agencies, and by literature review."
    - TGP has failed to reference any correspondence with said experts and agencies.
  - o The July Report's section 3.2.1 now states that "Wildlife species likely to occur in each habitat type were determined by direct observation during field surveys and by literature review" (p3-20). This appears to be a more honest statement regarding the actual research that has been conducted. Also, it may now be deduced that the statement in the March Report ("wildlife species likely to occur in each habitat type were determined by... consultations with local wildlife experts and regulatory agencies...") is a patently false statement since so many agency consultations were "pending" at that time.
- 3.2.1.8 Water Bodies. (p. 3-22)

- TGP indicates that the land use category of “Water Body/Open Water” includes those identified to be greater than 10 feet in width “as determined during field surveys.” However, field surveys for the project only exist for 45% of Massachusetts landowners (Table 1.2-6), making it difficult to classify other properties. Publically-available GIS data exists that would further inform TGP’s classification of water bodies and, yet, TGP continually refuses to cite it<sup>4</sup>.
- The July Report’s section 3.2.1.8 still fails to cite the use of GIS data to identify water bodies greater than ten feet. Updated orthoimagery does exist that GIS professionals are able to use to measure the width of open water. Despite the low percentage of field surveys that TGP has conducted throughout Massachusetts, TGP is still not utilizing available technology to further inform their efforts to understand the wildlife resources affected in the project area (p3-24).
- Table 3.4-2 Birds of conservation concern known to occur within the project area. (p. 3-84)
  - Table should include common names.
  - The July Report has been updated to include common names.

**Insufficient explanation/Failure to provide available data**

- 3.1.3 Construction and Operation Impacts. (p. 3-15)
  - TGP states that “Removal of streamside trees and vegetation at the pipeline crossings may reduce the shading of a stream temporarily, eliminate escape cover, and potentially result in a locally elevated water temperature near, and downstream of the pipeline crossing” and, subsequently, states that “once installation activities for the

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<sup>4</sup> <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/depwetlands112000.html>

pipeline segments are complete, disturbed areas will be restored to pre-construction condition.”

- This section (as well as Procedures) fails to describe how pre-construction conditions will be assessed, including the criteria under which a biological survey would be warranted. TGP fails to acknowledge restoration methods and time frames. How will TGP ensure that areas, where trees have been removed, stream shading and “locally elevated water temperatures,” are restored to pre-construction conditions?
- The July Report’s section 3.1.3 “Construction and Operation Impacts” still grossly fails to identify how the removal of streamside vegetation will impact coldwater fisheries. The July Report now omits the March Report’s assurance that “once installation activities for the pipeline segments are complete, disturbed areas will be restored to pre-construction condition,” making it unclear whether pre-construction coldwater fisheries conditions will be assessed at all. The July Report provides the broad assurance that “Post-construction and operational impacts to fisheries will be minimal” (p3-17) without providing clear indication of what specific post-construction activities will be conducted and how those activities are proven to be effective at restoring coldwater fisheries habitat once it has been degraded.
- The July Report’s section 3.1.3 notes that “During ROW vegetation maintenance activities, Tennessee will comply with Tennessee’s Project-specific Procedures and will leave vegetation in place within 25 feet adjacent to a waterbody, as measured from the waterbody’s high water mark, to allow for a riparian strip adjacent to the waterbody” (p3-16). The July Report is unclear as to whether the 25-foot buffer will

be measured laterally or topographically, and thus fails to discuss how steep slopes along coldwater fisheries will be addressed.

- The July Report's section 3.1.3 notes that "trees that are located within 15 feet of the pipeline that have the potential to compromise the integrity of the pipeline may be selectively cut and removed from the permanent ROW" (p3-16); it is unclear how the subsequent statement is related: "This will allow for the re-establishment of woody and herbaceous species along the stream banks that will provide needed shading and crucial cover habitat to sufficiently maintain CWF habitat characteristics" (p3-16). It is largely understood that trees provide shade that is necessary to maintain cool summer temperatures in coldwater streams. While selectively cutting trees may promote the re-establishment of woody species, success of this management practice is entirely species-specific, site-specific, highly influenced by the presence of invasive species/pests, and – in order to sufficiently maintain CWF habitat characteristics – is best conducted under the direction of a licensed forester. TGP does not provide any citation to support its claim that these broad management practices will ensure that coldwater fisheries habitat characteristics will be maintained.
- 3.1.4 Measures to Avoid, Minimize, and Mitigate Impacts. (p. 3-16)
  - TGP cites several measures to protect and minimize potential adverse impacts to streams, one of which is to restore "stream channels and bottoms to their original configurations and contours."
  - However, this section fails to describe how pre-construction, "original" conditions will be recorded.

- The July Report's section 3.1.4 indicates that "All waterbody crossings will be photo-documented before and after construction" (p3-18). Subsequently, the July Report repeats the March Report's assurance that TGP will be "Restoring stream channels and bottoms to their original configurations and contours using original substrates" (p3-18). It is still unclear how, if at all, TGP plans to measure pre-construction conditions such that the configurations and contours of streams will be restored. Photo documentation of streams is a measure of aesthetics and fails to scientifically measure integral factors such as hydraulics and sediment transport patterns. Without incorporating such factors, TGP is failing to adequately assess the potential impacts of the proposed pipeline.
- 3.2.2.3.11 – Massachusetts BioMap2 Data. (p. 3-46)
  - "The Core Habitats, Critical Natural Landscapes and all their individual components are an important source of spatially explicit data that Tennessee can incorporate into its assessment of impacts including avoidance, minimization, and mitigation."
    - Use of the word "can" instead of "will" implies that they have not committed to this. How will the data be incorporated into the assessment of impacts?
  - Although the July Report's 3.2.2.3.11 section does include numerous examples of how BioMap2 data will be incorporated into TGP's impact assessment, this explanation lacks sufficient description. Regarding Species of Conservation Concern, the report notes that "These data will be used to direct field surveys for state-listed species as directed by the NHESP. There are an additional 27 non-listed species included in the BioMap2 Species of Conservation Concern mapping. Nearly half of these (i.e., 13) are BCCs whose habitats will be captured in wetland resource mapping

and Tennessee's Project-specific forest interior mapping" (p3-43). While TGP comprehensively explains the available data, the report fails to explain how it will be incorporated into the assessment of impacts. In discussing the Critical Natural Landscape BioMap2 data, TGP fails to adequately explain how impacts will be assessed.

- As noted on page 3-42 of the July Report, "Critical natural landscapes consist of the largest landscape blocks from within each of the eight ecoregions that provide habitat for wide-ranging species, support intact ecological processes, *maintain connectivity among habitats, and enhance ecological resilience* (Woolsey et al. 2010)." The Critical Natural Landscape data was created to delineate interactions among different habitats and how their integrated patchwork supports large-scale populations of wide-ranging species. As such, impact assessment should address all elements of this comprehensive data set. Instead, TGP notes that "The majority of habitats included in the critical natural landscape will be accounted for by impact assessment of Project-specific forest interior mapping (Section 3.2.2.6), wetland buffer zones, 200-foot riverfront areas, and vernal pool critical terrestrial habitats" (p3-44). The broad use of "the majority of habitats" insufficiently explains how assessment will occur specific to this integrative and unique landscape-level dataset. It appears that TGP is under the assumption that by assessing the impacts to individual habitats, this will suffice to assess the impacts to the complex interactions among different habitats. This is a false assumption and the report

fails to sufficiently explain how impacts to Critical Natural Landscapes will be addressed.

- Massachusetts Association of Conservation Commissions (02/06/2015) requested that this data be indicated on maps and it was not included.
  - Although this data is now included in the July Report, the symbology of the BioMap2 data is unclear (Attachment 3a). In many cases, Core Habitats and Critical Natural Landscapes overlap, which should be evident on the map. Instead, TGP chooses to present this data as two distinct colors, with no evident overlap of the two sets of data. TGP's maps of BioMap areas blatantly misrepresent the data.
- 3.3.2.3 Vegetation Communities of Special Concern: Massachusetts. (p. 3-74)
- TGP indicates that they have not received response from the United States Fish and Wildlife Service and its sister agency in Massachusetts or the Natural Heritage & Endangered Species Program. While awaiting responses, TGP reports conducting internet-based searches "to identify potential natural communities of special concern in Massachusetts." This section of the report fails to consider publically-available Natural Heritage and Endangered Species Program's BioMap2 data<sup>5</sup>.
  - The July Report's section 3.3.2.3 includes information regarding correspondence with the appropriate agency, Massachusetts NHESP, however it appears that some correspondence is missing.
    - First, when the July Report addresses correspondence with NHESP, TGP only notes species-specific details, stating that "No specific natural communities

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<sup>5</sup> <http://maps.massgis.state.ma.us/dfg/biomap2.htm>

were identified in either correspondence” (p3-70, referring also to USFWS correspondence). While NHESP correspondence (French letter, March 3, 2015) primarily cites an attached list of specific species, the NHESP representative also emphasizes that “projects and activities located within Priority and/or Estimated Habitat must be reviewed by the Division,” closing with “Please note that the information contained in this letter addresses only the matter of state-listed rare species and does not pertain to other resources or wildlife habitat issues that may be pertinent to the project” (App B Agency Correspondence 2 of 2, no pages present; emphasis not added). App B Agency Correspondence 2 of 2 is unindexed and does not appear to include TGP’s request to NHESP for this information. Prior correspondence from NHESP (Glorioso, March 3, 2015) refers to an “attached letter regarding the Information Request form submitted to NHESP,” but this letter appears to be omitted from App B Agency Correspondence 2. Because TGP’s inquiry to NHESP is omitted/unclear, it is unclear whether TGP specifically inquired for species-specific information or whether TGP’s request for information regarding natural communities was never made. Were “no specific natural communities” identified solely because TGP failed to inquire about them? NHESP’s emphasis on Priority and/or Estimated Habitats appears to highlight the importance of habitats, which is also the emphasis of Section 3.3.2.3, entitled “Vegetation Communities of Special Concern: Massachusetts.” TGP’s correspondence with NHESP fails to sufficiently address vegetation communities of special concern.

- **Second, in the July Report’s section 3.3.2.3, TGP further indicates that “While awaiting further guidance from the NHESP and the USFWS on survey requirements, a desktop analysis using available GIS data and Internet-based searches was conducted to identify potential natural communities of special concern in Massachusetts. These are described in the following sections” (p3-71).**
- **In the July Report, it is unclear what GIS data TGP is using to determine communities of special concern; several datasets are available, most notably NHESP’s publically available Priority Habitats of Rare Species 2008 layer, which TGP fails to acknowledge in this section of the report. Projects that fall within a designated Priority Habitat must be reviewed by NHESP for compliance with Massachusetts Endangered Species Act (MESA). TGP’s updated report notes only four S2/S3 natural communities (p3-71), failing to note several that coincide with the proposed pipeline route, such as the S3 Rich, Mesic Forest Community. TGP fails to adequately identify and address potential impacts to all Priority Habitats within the proposed project area.**
- **Subsequently, the section explains four natural communities that are of, reportedly, special concern to the state (p. 3-75 to p. 3-77); however, TGP fails to identify Core Habitat and Critical Natural Landscapes that contain vital information about vegetation communities of special concern.**

- Specifically, the report fails to mention Core Habitat 2943,<sup>6</sup> which the proposed pipeline passes through on several occasions. In addition to containing vegetation of special concern, it is habitat to numerous state and federally-listed species, such as clubtail dragonflies, spring salamander, wood turtle, and the longnose sucker.

**Suggestions to minimize environmental impact**

- 3.3.4.1 Clearing. (p. 3-80)

- On several occasions, TGP indicates that they will take specific action once a tree has been felled:
  - “Trees shall be felled into ROW”
  - “Trees that have inadvertently fallen into waterbodies or beyond the ROW will be removed immediately”
  - “Tennessee does not plan to use timber stacks as wildlife habitat”
- Generally, removal and/or chipping of felled trees is not beneficial to improving wildlife habitat and should be considered on a case-by-case basis. Landowners should be entitled to receive education on what their potential options are and how each option would affect their remaining resources.
- The July Report’s section 3.3.4.1 (p3-79) has been revised to address this concern.

- Table 3.4-7: Locations and Timing of Pending Species Specific Biological Surveys Associated with the Project

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<sup>6</sup> [http://maps.massgis.state.ma.us/dfg/biomap/pdf/town\\_core/Ashfield.pdf](http://maps.massgis.state.ma.us/dfg/biomap/pdf/town_core/Ashfield.pdf)

- TGP cites, on several occasions, that the relevant table will be populated pending biological surveys in response to agency consultations. In order to gain the best understanding of the resources that TGP may encounter, NEES suggests contacting relevant NGOs that may have more accurate data, such as species sightings.
- In the July Report, TGP has documented agency consultations and the Locations and Timing of Pending Species Specific Biological Surveys Associated with the Project (Table 3.4-8) has been populated, albeit it is still incomplete and does not contain information on survey timing (3b-19).

#### **RESOURCE REPORT 4: Cultural Resources**

##### **Transparency**

- Table 4.4-17: A list of historic sites within or adjacent to the pipeline corridor has been created for MA, and includes sites in Berkshire, Franklin, and Hampshire Counties. The methods by which these sites have been identified is not described, and the table headings are without key and essentially useless for determining precise areas and what they contain. This lack of transparency prevents NEES and other reviewers from determining possible impact on historic sites. (p. 4-18)
  - Example: the heading “Site No.” follows an alphanumeric code for which no key is given, and no description of the resources corresponding to each “Site No.” is included in the report.
  - Example: The heading “Parcel” likely relates to an assessors map parcel, but no reference map is listed, making it impossible to investigate the possible impacted properties.

- The July Report's Table 4.4-17 (Previously Recorded Archaeological Sites in Franklin County) has not been clarified. The text of the corresponding section (4.4.1.3 Project Facilities in Massachusetts) and the previous section (4.4.1 Archaeological Research and Survey Methods) do not offer an explanation as to the characteristics these historic sites hold or where they are located. The terminus of section 4.4.1.3 notes that "Additional information regarding these known resources can be found in the Overview Report (Volume III, Appendix CC)," however this section is not available to the public (p4-21). Furthermore, the report does not explain why they TGP is withholding this information. Instead of providing further clarification, Table 4.4-17 now excludes the "Parcel" column and continues not to provide an explanation for the "Site No." column (p4-21). Repeating the trend of the July Report, TGP has chosen to completely remove previously confusing information rather than clarification of the same.

#### Insufficient explanation

- 4.4: TGP indicates that a GIS model to predict areas where historic interests likely fall within the pipeline's possible impact area has been created. However, TGP does not indicate whether this model has been deployed in MA, shared with the MA Historic Commission, or whether the possible areas of historic interest they later identify were selected using this rigorous tool or some less robust method. Such lack of information does not give NEES and other reviewers sufficient grounds to judge whether the historic interests are being duly considered. (p. 4-6)
- The July Report's section 4.4.1 Archaeological Research and Survey Methods has not changed; however, the description does indicate that "The model produced archaeological site probability for the entire 1-mile buffer, which was then clipped by the Project survey

area” (p4-9). As written, TGP forces an assumption that the description also includes Massachusetts. It still appears that the data has not been shared with the Massachusetts Historic Commission or other stakeholders.

- 4.4: At the time this report was released, TGP indicated that no field surveys of historic resources have been undertaken in MA, and that determination of impacted historic resources would be primarily determined by field survey. This tardiness complicates review of the potential impacts of the pipeline on historic resources of interest, and prevents NEES from readily determining whether certain historic interests which lie in the proposed pipeline’s path have been duly considered. (p. 4-6)
- At the time of the July Report, TGP has still failed to conduct field surveys of historic resources throughout all of Massachusetts. Therefore, determination of impact to historic resources continues to be unknown.

## **RESOURCE REPORT 5: Socioeconomics**

### **Transparency:**

- 5.5 Socioeconomics: Agriculture. (p. 5-10)
  - o TGP indicates that they will provide “just” compensation for loss of crop and timber production with each affected landowner; but, TGP does not explain how compensation will be calculated.
  - o The July Report’s section 5.5 Agriculture (p5-16) has not changed. TGP still fails to explain how landowners will be fairly reimbursed for loss of crop and timber production.

## **RESOURCE REPORT 7: Soils**

### **Failure to present most recent data:**

- 7.2 Aboveground Facilities and Prime Farmland Impacts. (p. 7-4)
  - o In a Massachusetts Association of Conservation Commission's letter to TGP (2/4/2015), TGP was asked to indicate and show on maps the location of each land with a conservation or agricultural restriction that the pipeline would cross.
  - o The Report fails to do so. Although, it does state that TGP is consulting with USDA-NRCS to determine the locations of agricultural preservation restrictions. Up-to-date versions of this data is publically available and there should be no excusable delay for including such information in the application<sup>7</sup>.
  - o The July Report still fails to show locations of agricultural preservation restrictions (Resource Report 7 – Soils Maps). TGP fails to incorporate publicly available data and related concerns.

## **APPENDIX H:**

### **“PLAN” Commission’s Plans and Procedures (Upland Erosion Control, Revegetation, and Maintenance Plan)**

#### **Insufficient Explanation/Failure to Provide Sufficient Information**

- I, Applicability. (p. 1)

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<sup>7</sup> <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/osp.html>

- The Director can agree to a variance at the request of the project sponsor if the variance is necessary due to a portion of the Plan being “infeasible or unworkable based on project-specific conditions”
    - How are “infeasible” or “unworkable” defined? Is it possible that a proposed activity is infeasible due to financial or contractual considerations?
    - If a variance is issued, how is it ensured that there is not a potential for the changed activity to negatively impact a resource?
  - The July Report entirely fails to answer the aforementioned questions. This omission implies that TGP may indeed deem a project “infeasible” because of its high cost. Should environmental conditions and public health be jeopardized because of potentially high costs of stringent erosion and revegetation plans that have been touted to the public and approved by FERC? The July Report remains unclear and does not clarify this concern.
- II.B. Responsibilities of Environmental Inspectors. (p. 3)
- Regarding temporary erosion control measures occurring within 24 hours of each 0.5 inch of rainfall: Communities in certain areas of the proposed pipeline often have micro-climates with isolated rain events; as such, where will rainfall be measured in relation to work sites and what is the maximum distance of measuring?
  - The July Report fails to entirely answer the aforementioned questions. Suppose it rains 0.4 inches in Deerfield. In upstream Conway – two miles away – it rains 1.3 inches. Will the Environmental Inspector inspect temporary erosion control measures at both sites? Again, by failing to provide sufficient information, TGP leaves the public without enough knowledge to ensure that environmental conditions and public

health will be sufficiently protected. Failure to check erosion control measures after rainfall events can lead to various negative impacts, including infrastructure damage, agricultural erosion, increased stream turbidity in sensitive fisheries, reduced water quality, and habitat degradation.

- III.A. Construction Work Areas. (p. 4)
  - o “Project sponsors are encouraged to consider expanding any required cultural resources and endangered species surveys in anticipation of the need for activities outside of authorized work areas.”
  - o Expanding the construction right-of-way is discussed in Section IV. A – Installation – Approved Areas of Disturbance – but, it is not clear whether this refers to the broad “activities outside of authorized work areas” mentioned in section IIIA.
    - What is the process for conducting activities outside of authorized work areas? How are landowners/APR/CR grantors notified of such an event? How does TGP ensure that there will be no impact to the property in such instances?
  - o The July Report fails to address the aforementioned questions.
- V.C. Restoration: Soil Compaction Mitigation. (p. 14)
  - o TGP states that they will plow “severely compacted agricultural areas with a paraplow or deep tillage implement.” “Severely” is not defined, and how can landowners ensure that their soil is restored if they have concerns?
  - o The July 2015 report fails to address the aforementioned questions. By failing to define “severely compacted agricultural areas,” TGP is not ensuring that the economic viability of agricultural soil will be restored to farmers.

**Suggestions to reduce environmental impact:**

- VII.A. Post-Construction Activities and Reporting: Monitoring and Maintenance. (p. 17)
  - o TGP states that revegetation will be considered successful if upon visual survey the density and cover of non-nuisance vegetation are similar to, in density and cover, adjacent, undisturbed lands.
  - o With 83% of the proposed pipeline being purportedly co-located, it is likely that adjacent land that has previously been disturbed has a high proportion of nuisance vegetation, thus serving as a skewed benchmark for revegetation success. Success should be measured by the density and cover of restored, non-nuisance vegetation in comparison to pre-construction composition at the same site.
  - o The July Report fails to address the aforementioned.

**APPENDIX H:**

**“PROCEDURES” Commission’s Plans and Procedures (Wetland and Waterbody Construction & Mitigation Procedures)**

**Inaccurate Information**

- Appendix H, Wetland and water body construction mitigation procedures. (p. 13): TGP claims that the proposed pipeline has been routed to avoid wetlands to the maximum extent possible. This is not the case. The proposed project will cross wetlands which are small enough that a very minor jog in the pipeline would allow it to completely bypass these resources.

- The July Report does not offer additional clarity to this issue. The section in which it appears (VI.A.2) is wholly unchanged.

**Insufficient explanation**

- Appendix H, Wetland and water body construction mitigation procedures. (p. 3): A designated environmental inspector for each region through which the pipeline passes will be engaged to review wetland and stream crossings. TGP does not discuss how said inspector will be selected; nor, are organizations in impacted areas offered an opportunity to review or suggest inspector-candidates. In short, landowners are left to trust that TGP will select a qualified and impartial inspector with no opportunity to participate in the selection process.
- The July Report does not clarify the aforementioned whatsoever.
- Appendix H, Wetland and water body construction mitigation procedures. (p. 11-12): TGP outlines promising restoration measures for impacted streams, but does not offer any explanation as to how the success of these efforts will be measured. Several high quality streams could be impacted by the proposed project. NEES does not believe that a complete restoration effort could be carried out on impacted streams without a thorough pre-construction assessment and careful monitoring.
- The July Report does not clarify this concern either. There is not further explanation of how TGP Morgan plans to ensure that restoration measures at stream crossings will be successful. The July Report's Appendix H does offer additional information regarding how stream crossings will be determined – "In accordance with consultations with state regulatory agencies, Tennessee is proposing to cross streams with discernible flow at the time of construction via fluming or dam and pump, regardless of fisheries or critical habitat designation. Following this guidance provides greater resource protection than the

Commission's Procedures, as discussed in more detail in Resource Report 2" (pH-7).

However, TGP fails to cite correspondences to which it refers – specifically, it is unclear whether “state regulatory agencies” include all states within the project area or whether this only applies to specific states.

**Suggestions to minimize environmental impact**

- Appendix H, Wetland and water body construction mitigation procedures. (p 2): Site specific justifications for work areas or construction ROWs within 50 or 75 feet, respectively, of a wetland or water body must be filed with FERC. If impacted areas occur on conservation land, NEES suggests that the primary conservation interest holder be invited to review the plan.
- The July Report's Appendix H still does not offer acknowledgement of conservation land.
- Appendix H, Wetland and water body construction mitigation procedures. (p. 3): FERC must be notified in advance of blasting or trenching plans that fall within an intermediate or major water body, CWFR, or habitat of threatened or endangered species. Again, when such activities are planned, the landowner should be party to them.
- The July Report's Appendix H still does not acknowledge how blasting will be treated on conservation land (pH-2, Part 2, Procedures).
- Appendix H, Wetland and water body construction mitigation procedures. (p. 5): The window for construction within cold-water fisheries is from June through September. Rationale for this window is not provided and, in fact, NEES believes that the proposed window encompasses a time of year when fisheries will be under greatest stress due to high water temperatures and low water levels.

- The July Report's Appendix H also fails to provide justification for having chosen the June through September span for construction within waterbodies. Failure to cite substantiating information implies that TGP has arbitrarily chosen this span without having conducted research on coldwater fisheries resource requirements (pH-4, Part 2, Procedures). Scientific research on stream flow in the project area of Western Massachusetts has been recently conducted and can be easily accessed by TGP; however it appears that TGP is choosing to avoid using this highly relevant data.

Thank you for the opportunity to submit these comments. NEES reserves its right to amend and add to these comments. NEES is submitting this filing with the Commission's Secretary through the eFiling system. Any questions concerning these comments should be addressed to Vincent DeVito at (202) 465-8785.

Respectfully submitted,

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