



NEW JERSEY HIGHLANDS COALITION

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October 9, 2009

Ms. Eileen Swan, Executive Director
Chairman John Weingart
Highlands Water Protection and Planning Council
100 North Road (Route 513)
Chester, New Jersey 07930-2322

**RE: Tennessee Gas Pipeline Company 300- Line Project
Draft Highlands Consistency Determination Review (Revised)**

Dear Ms. Swan, Chairman Weingart, and Council Members,

Please accept these comments on behalf of the New Jersey Highlands Coalition and the signatory organizations on the Tennessee Gas Pipeline Company 300-Line Project and the Highlands Council's RMP Consistency Determination.

We oppose this project because of its inconsistencies with the Highlands Act, the Highlands Regional Plan and NJDEP's Highlands Rules. Furthermore, the need for this project has not yet been determined by the sole agency in the state of New Jersey with the authority to make that determination, the New Jersey Board of Public Utilities.

In order to qualify for exemption 11 under the Highlands Water Protection and Planning Act the project must be "*consistent with the goals and purposes of this act;*" The standard of review set forth by the Council in the second Highlands RMP Consistency Determination (9/16/09) for this project sets an unfortunate precedent for future projects seeking an exemption under exemption 9 or 11. The Consistency Determination review process must be modified to require consistency with the Regional Master Plan, as the goals and purposes of the Act are incorporated into the RMP, whose creation was mandated under the Act. The original Highlands RMP Consistency Determination (5/11/09) for this project utilized a much more stringent standard of review. The original Determination states, "The Highlands Council assesses the latter requirement (if a project is consistent with the goals and purposes of the Act) against the Highlands Act, the Preservation Area rules at N.J.A.C. 7:38, and the RMP to determine whether the nature of any inconsistencies are sufficient to find that the project is not consistent with the goals and purposes of the Highlands Act and therefore should not be exempt."

Comments on the Consistency Determination Review

The standard of review used in the second Highlands RMP Consistency Determination for this project is in opposition to the guidance set forth by RMP Objective 7F1f, which states "*Activities authorized under exemptions #9 and #11, which require a finding that the activity is consistent with the goals and purposes of the Highlands Act, shall be based upon a finding that*

the proposed activities are consistent with Highlands Act, the RMP, any rules or regulations adopted by the NJDEP pursuant to the Highlands Act, or any amendments to a master plan, development regulations, or other regulations adopted by a local government unit specifically to conform them with the RMP.” The Determination claims the project is consistent with this policy, yet in the description of the project, the staff states its determination of consistency is based on “the goals and purposes of the Act rather than consistency with the RMP itself.” A Consistency determination by the Highlands Council must be evaluated against not only the Highlands Act but the NJDEP’s Preservation Area Rules and the RMP if it is to be consistent with its own stated mandates. The standard of review set forth in this second Determination should not be allowed to become the benchmark for addressing new development in the Preservation Area. Approving the H.A.D. for projects such as Tennessee Gas Pipeline Company’s 300-Line Project and the PSE&G Susquehanna-Roseland 500 kV line, that are not consistent with the RMP or the goals and policies of the Act allows environmental offenses to be committed that should not be taking place in the legally protected Highlands Region.. Such decisions will have a chilling effect on municipalities looking to the Council to protect their natural resources through Plan Conformance.

The Comprehensive Mitigation Plan (CMP) proposes offsetting forest resource impacts in part by purchasing a 55-acre tract of mature upland forest. The Highlands RMP Consistency Determination emphasizes that this will result in no net loss of forest resources since the purchase is to “offset 31 acres of permanent forest impact”. However the project will affect over 190 acres of Forest Resource Protection Area, with 160.86 acres claimed as temporary impacts. The 160.86 acres in the temporary workspace will not be able to perform the ecosystem services of a mature upland forest for many decades, even if Tennessee Gas implements the re-vegetation program outlined in the CMP. The Highlands RMP Consistency Determination states, “It is the opinion of Highlands Council staff that restoration of forest to pre-disturbed conditions will not be accomplished in a short period” (12). The expansion of the ROW will create further fragmentation of the forest, allowing edge and invasive species to encroach deeper into the Forest Resource Protection Area, as identified through the metrics in the Council’s 2008 *Ecosystem Management Technical Report* (p. 40). These edge effects negatively impact species at least 300 feet within the forest boundary¹. Tennessee should be required to replace these forest areas in the Preservation Area at a 2:1 ratio, as required by the NJDEP with a minimum of 380 acres of replacement mature forest to ensure there is no net loss of forest resources or forest ecosystem integrity, to remain consistent with the goals and purposes of the Act.

The CMP is also inconsistent with Objective 1F6b: *Prohibit indirect impacts from activity that is off-site, adjacent to, or within Critical Habitat that will jeopardize the continued existence of, or result in the likelihood of the destruction or adverse modification of Critical Habitat, except as permitted through the issuance of a waiver under Policy 7G1 or 7G2.* The critical habitat mitigation plan does not address the effects of “temporary” factors related to the construction such as noise, increased diesel emissions, or dislocation from habitat. In fact the CMP dismisses such temporary effects saying, “While temporary impacts upon food, cover and water sources may occur, none of the species located within the Project area are specialized in such a way that construction of the pipeline will inhibit the overall fitness or reproductive output of the

¹ Janzen, D.H. (1987, Jan.). Habitat sharpening. *Oikos*, 48(1), 3-4.

populations as a whole.” On the contrary, noise associated with construction can have severe impacts. Certain species depend on hearing for courtship and mating behavior, prey location, predator detection, or homing and will suffer serious detrimental impacts from the construction project. These aspects of temporary impacts should be considered in a complete mitigation proposal.

Under Subpart B: Highlands Open Waters and Riparian Area, the Highlands RMP Consistency Determination states the applicant will monitor natural re-vegetation in wetland areas and submit reports to the Council, only taking action to re-vegetate the area “if the area is not showing signs of re-establishing native vegetation during the third growing season following construction.” Why is the applicant not employing a professional landscape ecologist directly after construction to re-establish the lost vegetative community and to ensure invasive species do not encroach following the disturbance of the area? Based on its annual monitoring activities, the company claims it will consider re-vegetation complete if “the cover of herbaceous and/or woody species is at least 75 percent of the type, density, and distribution of the vegetation in adjacent buffer areas”. Adjacent areas may be suffering an inundation of invasive species. Will invasives be permitted to be included as part of achieving the 75 percent requirements? Vegetative replanting with native species should be required immediately after construction to achieve a 100 percent cover within three years of native species of the type, density, and distribution that would occur locally in the vicinity of the construction area. This result should be accomplished through coordination by a professional landscape ecologist.

The Highlands RMP Consistency Determination finds that the project remains inconsistent with Policy 1H7 and Objective 1H7c concerning Land Preservation and Stewardship in Special Environmental Zones, but claims that “the linear nature of the project and the existing ROW make this incursion necessary”. This is in stark contrast to the original Determination in which these parcels were listed as one of three primary issues of inconsistency. The previous Determination clearly stated, “Expansion of the ROW and the laying of new pipeline in any of the Special Environmental Zone would be inconsistent.” No alternatives analysis is provided in the CMP except for an avoidance evaluation that looks at a route that avoids the Highlands altogether. An alternatives analysis needs be conducted for the three Special Environmental Zone parcels adjacent to the proposed and existing ROW. RMP Objective 1H7c requires that the “State or local government unit has exhausted all means for the permanent preservation of these lands” before an exemption is granted.

The Highlands RMP Consistency Determination states that the project remains inconsistent with Objective 2D4b: *Any development activity approved to occur in a Prime Ground Water Recharge Area shall provide an equivalent of 125% of pre-construction recharge volumes for the affected Prime Ground Water Recharge Area of the site within the following areas, in order of priority: (1) the same development site where feasible; (2) the same HUC14 subwatershed, or (3) an interrelated HUC14 subwatershed as approved by the Highlands Council where no feasible option exists in the same HUC14 subwatershed. This requirement shall apply to all portions of the Prime Ground Water Recharge Area where the recharge is disrupted through impervious surfaces, routing of stormwater runoff and recharge from natural flow paths, and other similar changes.* Is the applicant simply ignoring this provision since in the original Determination the Council staff clearly highlighted this objective in its comments stating, “Since the applicant has not yet demonstrated the provision of an equivalent of 125% of pre-

construction recharge volumes for the affected Prime Ground Water Recharge Area, the project... is inconsistent with the applicable RMP policies and objectives”. This is clearly outlined in the RMP, so why is it not addressed in the CMP to be made consistent? The applicant should first outline how they will achieve mitigation provided for in the RMP before attempting to create its own solutions to manage other aspects of a project clearly not in line with the goals and purposes of the Act and the RMP.

The revised RMP Consistency Determination considers the subpart on Land Use Capability Zones to **now be non-applicable** to the project although the original Determination found policies in the subpart to be inconsistent. Policies 6C1, 6C2, and 6F3 are all applicable to the project as the project runs through the Protection Zone and the Existing Community Zone. The Council staff states in the Determination that the CMP makes the project consistent with this subsection in the comments even though the RMP goals, policies, and objectives which apply here are all marked non-applicable.

Considering the environmental protections proposed in the CMP, the revised Highlands Consistency Determination considers the project now consistent with Policy 8A1: *“To maintain and expand the existing job and economic base by promoting appropriate, sustainable, and environmentally compatible economic development throughout the Highlands Region.”*. However the Determination notes only several **temporary** construction jobs will result from the project. Also the importation of more natural gas supplies is not consistent with environmentally compatible economic development nor a sustainable energy future for the Highlands Region. The CMP clearly states that the company is interested in using this extension to provide “access to diversified natural gas supplies from... Marcellus Shale supply areas” (1-6). Drilling in the Marcellus Shale in the future could lead to pollution in the Delaware River, which although not a Highlands Open Water, could result in major environmental impacts to the Preservation Area in Pohatcong and the Planning Area in White Township, Belvidere, Harmony Township, Lopatcong, Phillipsburg, Holland Township, Milford Borough, and Alexandria Township along the shore of the river.

We would like to remind the Council that this project will have severe impacts on the Wallkill National Wildlife Refuge, which is under the jurisdiction of the USFWS and is not subject to the proposed CMP. The Refuge boundary was recently expanded to protect the area. In addition, the Senate Appropriations Committee recently voted to earmark \$2.8 million for Fiscal 2010 “to expand the refuge in order to protect a wide variety of threatened and endangered species, including black bear, bobcat, river otter, and short-eared owl”. The substantial impacts of Tennessee’s project on the Wallkill River NWR should be reconsidered in light of recent federal efforts to preserve this critical area.

If the project moves forward and appropriate mitigation requirements are not imposed and the process of purchasing land in exchange for environmental destruction is allowed to occur, at the least, the mitigation parcels should be selected before the project can begin to ensure that the properties do in fact contain valuable resources proportionate to those lost by the expanded ROW and construction. By identifying parcels beforehand, in a transparent process that elicits the public’s confidence, the Council can ensure that adequate and appropriate mitigation opportunities exist before the resources the Council is mandated to protect are destroyed.

We urge the Highlands Council, as the body charged with protecting Highlands resources, to find the project inconsistent. Tennessee should be required to comply with all aspects of the Highlands Act, the NJDEP rules and the RMP.

Comments on the Comprehensive Mitigation Plan (CMP)

1.1.2.3 Horizontal Directional Drilling (HDD)

Tennessee proposes to utilize HDD at 3 crossings; 2,190' of wetlands in Vernon Twp., 3,545' of a combination of roads, a lake and homes in Vernon Twp., and 4,798' under the Monksville Reservoir in West Milford. In Tennessee's HDD Contingency Plan (Vol. III, Final EA, appendix G), any number of circumstances can lead to a failure during drilling that could lead to an abandonment of the drilling procedures in favor of the "approved alternate crossing method." An alternate crossing method has not been provided.

Tennessee explains in the HDD Contingency Plan the composition of the drilling fluid--which in order to remove cuttings from the borehole, stabilize the borehole, and act as a coolant and lubricant during the drilling process, must be pumped at rates between 100 and 1000 gallons per minute—as primarily Bentonite and water, and that Bentonite meets NSF/ANSI standards as a drinking water additive. Tennessee must be required to list the components of the non-primary ingredients of the drilling fluid and their potential affects upon the integrity of drinking water and the possible effects of both Bentonite and the non-primary ingredients on aquatic life.

Per the HDD Contingency Plan, a notification procedure is in place in the event unintended releases of drilling fluid is detected due to fracturing of rock or other failures. The notification list includes USACE and USFWS, NJDEP, and FERC. The Highlands Council should be on the notification list.

1.1.2.4 Access Roads

Six "Unnamed Private Roads" of an unspecified total length are mentioned. The lengths of the roads, their current **conditions** including absence or presence of forest canopy, proposed improvements in order to accommodate the intended construction vehicle traffic (including grading, required widths, road material to be laid down, etc), and a tree removal inventory all must be specified in order that Tennessee may accomplish its commitment to the "Restoration and mitigation activities associated with access roads," as stated in this section of the CMP.

1.1.3 Summary of Project Impacts to Highlands Resources

The CMP estimates that a total of 230.42 acres of Highlands Resources will be impacted by the project (permanent and temporary). This estimate includes temporary workspaces, but excludes the 10,533 linear feet of the project area where impacts are avoided through the use of HDD. Because the estimated impacts were factored into the proposed mitigation plan, if an "approved alternate crossing method" is utilized due to HDD failure, any new disturbance must be added to the amount of mitigation. It also must be asked by what method 55 acres of upland forest has been proposed by the Council as acceptable mitigation for the 230.43 acres of total disturbance

(NJDEP requires a 2:1 ratio of replacement for forested areas cleared within the Preservation Area).²

Tennessee proposes to drill a maximum depth 220' below ground surface in order to extend the loop segment underneath the Monksville Reservoir and the steep slope topography of Long Pond Ironworks State Park, west of the reservoir.³ A total of 3 abandoned mine openings are mapped on the NJDEP Geology iMap; approximately 1000' west of the HDD exit point, 1700' west of the exit point, and 1400' north of the entry point. The direction of these abandoned mines, their extent and vertical depths are unknown. Penetration into a mineshaft will result in infiltration of HDD fluid into ground water supplies, or a subsidence that may result in a critical outflow of reservoir water, or an unexpected failure of HDD. Particular caution must be exercised by Tennessee when drilling within the vicinity of a known abandoned mine and procedures must be addressed in the CMP.

1.1.3.14 Special Environmental Zone (SEZ)

The CMP recognizes that it will cross 0.63 miles of the SEZ, with permanent impacts to 1.94 acres and temporary impacts to 6.87 acres of the SEZ. This is inconsistent with Objective 1H7b: *Adopt and enforce development regulations which prohibit the development of those portions of a parcel of land which are located within a Special Environmental Zone.* Tennessee states in the CMP that “the Highlands Council states that existing land use patterns shall be considered to minimize conflicts between the designation of a SEZ and ongoing land uses.” Only “NJHC 2009” is provided as the source of this statement, however, no such language or intent is found in the RMP. Furthermore, if such an exception to Objective 1H7b was given in the context of private discussions between the Council and Tennessee, it might be understandable for temporary impacts within Tennessee’s existing ROW—but the proposed impacts include permanent impacts outside of Tennessee’s existing ROW. Tennessee has not made any demonstration of avoidance or minimization of impacts within the SEZ. Only if and when Tennessee has demonstrated that it has exhausted its requirement to first avoid and minimize impacts within the SEZ, special mitigation must be offered above and beyond the total of the proposed mitigation for the project, respecting the highest quality resource value of the SEZ designation.

2.1 Forest Resources – Forest Management Plan

The majority of Tennessee’s Project is mapped as Forests within Forest Resource Area. Tennessee claims however that “the Project does not affect any core forest areas” because “core forests are those areas of forest greater than 300 feet from an altered edge.” The Council’s Ecosystems Management Technical Report (2008) defines core forest as “forest patches greater than 300 feet in distance to an altered edge” and an altered edge as “the spatial delineation of the geographic boundary (i.e., edge) between forest and non-forest land.” A 16-mile swath of shrub-scrub, 50' wide, with de minimus human activity, and a significant portion located under forest canopy, could hardly be considered a geographic boundary of forest, as would say, a multi-lane paved road or a housing development. Furthermore, the entirety of Tennessee’s existing ROW is within a Highlands mapped High Integrity Forest. If one were to accept Tennessee’s logic, the

² Correspondence from Joseph Corleto, NJDEP to Kimberly Bose, FERC, September 1, 2009

³ Reference Drawings, Proposed 30" HDD Crossing, Loop 325-5, Horizontal Directional Drilling Construction Plan, July 17, 2009

ROW could be increased by 250' and paved—resulting in no further fragmentation of forest than already exists. In any case, adding a minimum 25' of new ROW will shift the “300’ within the altered edge 25’ into core forest, resulting in a net reduction of core forest in the Highlands. This reduction in core forest area must be factored into any forest replacement mitigation requirements, which as noted earlier, must be at a minimum of a 2:1 ratio.

2.3 Steep Slope Construction Plan

In a September 1, 2009 letter from Joseph Corleto, Principal Environmental Specialist at NJDEP’s Office of Permit Coordination and Environmental Review to FERC, the following concerns were expressed, “Large amounts of clearing and temporary and additional workspaces are proposed at various locations along the proposed pipeline, however no justification has been given by section of pipeline why these areas have to be located where they are, nor why they are the size proposed. The workspace fluctuates between 100’ in some areas including existing easement, proposed easement, and temporary workspace to 175’ total disturbance in other areas. Furthermore, **in forested areas** and **on steep slopes** (emphasis added) large areas of additional workspace are proposed, these areas pose greater risk of erosion and greater potential impacts to wetlands and waters downslope. In these areas it is unclear if grading is to occur in these areas, impacts in these areas need to be addressed.” As of this date, Tennessee has not responded to these concerns.

2.4 Critical Habitat Mitigation Plan

Section 34 (k) of the Highlands act requires: “a prohibition on development that disturbs upland forested areas, in order to... **protect threatened and endangered animal and plant species sites and designated habitats** (emphasis added); and standards to protect upland forested areas that require all appropriate measures be taken to avoid impacts or disturbance to upland forested areas, and where avoidance is not possible that all appropriate measures have been taken to minimize and mitigate impacts to upland forested areas and to... protect threatened and endangered animal and plant species sites and designated habitats.” Tennessee’s 300 Line Project is in violation of this unambiguous mandate of Highlands Act, and one of the Act’s primary goals, policies and objectives (this exact language appears twice in the Act). Clearly, if allowed to violate this section of the Act, the mitigation should be commensurate. The proposed acquisition of 55 acres of mature upland forest as mitigation for Tennessee’s impacts upon NJDEP Landscape versions 2 and 3 mapped critical habitat and rare plant species (S1, S2 and S3) is substantially inadequate.

2.4.2.1 General Rare Species Mitigation Measures

Tennessee proposes to hire and train an Environmental Inspectors (EIs) who will be responsible for “understanding and implementing the components of federal and state-listed threatened and endangered species mitigation measures” and that “the credentials of the on-site EIs will be forwarded to the Council prior to the commencement of construction.” Although Tennessee suggests in the CMP that more than one EI will be hired, according to Tennessee’s Environmental Construction Plan (ECP), Tennessee will use “one qualified, full-time EI for each pipeline loop segment,” which in this case, includes the entire NJ section of pipeline. Also, the ECP outlines 45 distinct areas of the EI’s oversight in addition to “stop-task” authority. Furthermore, the EI will have the responsibility of identifying any archaeological artifacts, including human remains, during the construction process and have the discretion to issue a

“stop-task” order if the EI determines the artifact to be of significance. At a minimum, Tennessee should not merely advise the Highlands Council of its choice for this highly specialized and credentialed position, rather Tennessee should be required to accept recommendations of the Council for qualified specialists who have familiarity with the Highlands. Ideally, the EI should have no ties to Tennessee. An EI, working in the best interests of preserving Highlands resources, should be hired by the Council, and paid by the Council from a fund established by Tennessee.

2.4.2.4 Other State Listed Species

Using a combination of field surveys and NJDEP’s Landscape Project, Tennessee identified 57 different areas of both potential and high potential habitat for Cooper’s hawk. However, “since the suitable habitat occurs within wetlands and or riparian areas, Tennessee will address potential impact mitigation measures through the NJDEP review process...” The Highlands Council Consistency Determination will be two-fold; it has approval authority for the Planning Area and will be making a recommendation to NJDEP for the Preservation Area. The RMP considers impacts upon T&E species, wetlands and riparian areas and all potential impacts must be addressed before a determination of consistency can be made. Impact mitigation measures regarding Cooper’s hawk must be provided to the Highlands Council in advance of a Consistency Determination.

2.4.2.5 Rare Plants

Tennessee proposes that “if rare plants are found during field surveys, mitigation would include avoidance and fencing of known populations of these species and removal and replanting of the population outside of the construction workspace area or removal, translocation to an approved plant nursery during construction and replanting during restoration.” No procedures are provided if rare plants are discovered during construction. The removal of plants to “an approved nursery” is vague. Approved by whom? What evidence can Tennessee provide of the survival rates for twice replanted wild rare plant species? What mitigation does Tennessee propose if the replanted species do not survive replanting?

2.8 Water Resources Quantity Protection Plan

Tennessee is proposing to mitigate impacts upon Prime Ground Water Recharge Areas in areas not necessarily interrelated within the affected HUC-14. However, according to the RMP, Objective 2D4b, “Any development activity approved to occur in a Prime Ground Water Recharge Area shall provide an equivalent of 125% of pre-construction recharge volumes for the affected Prime Ground Water Recharge Area of the site within the following areas, in order of priority: (1) the same development site where feasible; (2) the same HUC14 subwatershed, or (3) an interrelated HUC14 subwatershed as approved by the Highlands Council where no feasible option exists in the same HUC14 subwatershed.”

Comments On the Environmental Construction Plan

4.5 Inadvertent Disturbances to Off Right-Of-Way

Tennessee acknowledges that “under extreme circumstances, such as working on steep slopes in slippery conditions, while grading on steep slopes, some inadvertent off-ROW disturbances may occur.” Perhaps they should halt work in slippery conditions on steep slopes i.e., following a

heavy rainfall. In any case, if such a disturbance were to occur, the EI and Tennessee are only required to notify affected landowners and FERC. Tennessee should also notify the Highlands Council.

5.1 Blasting

Tennessee has identified 26 potential blasting areas within the Highlands portion of the project area (Environmental Resource Report 6, Geological Resources). Of those sites 9 are located within mapped carbonate rock (karst) areas (CMP 2.5 Carbonate Rock Plan). Tennessee acknowledges the possibility of temporary or substantial impairments to ground water may occur as a result of blasting activities and propose to compensate landowners for such impairments including the drilling of new wells. In order to ensure the integrity of Highlands water quality, Tennessee must additionally do the following: 1) Notify the Highlands Council of scheduled blasting activity in advance, 2) Monitor nearby ground water sources to determine if any impairment has occurred, 3) If impairment has been discovered, determine the extent of the impairment within the entirety of the HUC-14, 4) Agree to appropriate mitigation measures prior to the construction phase of the project, 5) Develop particular procedures that consider the instability of any disturbances, including blasting activities, within carbonate rock areas.

Respectfully submitted,



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And on behalf of:

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