



**Proposed "Northeast Energy Direct" Project  
Tennessee Gas Pipeline Company, LLC**

**U.S. Federal Energy Regulatory Commission  
(FERC Docket #: PF14-22-00)**

**Resource Reports & Appendices 1-13  
July 24, 2015 Submittal**

**NH DES Comments**

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**1. Office of the Commissioner**

General Comment: Partial list of NH DES permitting programs potentially triggered by the proposed Northeast Energy Direct (NED) project.

Permitting Guidance: <http://des.nh.gov/organization/commissioner/pip/index.htm>

Pre-application Meetings: <http://www4.egov.nh.gov/DES/PreApp/>

- Alteration of Terrain: <http://des.nh.gov/organization/divisions/water/aot/index.htm>
- Wetlands Permitting: <http://des.nh.gov/organization/divisions/water/wetlands/index.htm>
- Drinking Water/Groundwater Protection: <http://des.nh.gov/organization/divisions/water/dwgb/index.htm>
- Drinking Water Source Protection: <http://des.nh.gov/organization/divisions/water/dwgb/dwssp/index.htm>
- Groundwater Discharge Program: [http://des.nh.gov/organization/divisions/water/dwgb/dwssp/gw\\_discharge/index.htm](http://des.nh.gov/organization/divisions/water/dwgb/dwssp/gw_discharge/index.htm)
- Instream Flow Protection (e.g., Souhegan River): <http://des.nh.gov/organization/divisions/water/wmb/rivers/instream/index.htm>
- Rivers Management & Protection Program: <http://des.nh.gov/organization/divisions/water/wmb/rivers/index.htm>
- Shoreland Program: <http://des.nh.gov/organization/divisions/water/wetlands/cspa/index.htm>
- Storm Water Program: <http://des.nh.gov/organization/divisions/water/stormwater/index.htm>
- Climate Resilience for Drinking Water & Wastewater Systems: <http://des.nh.gov/organization/divisions/water/dwgb/climate-resilience.htm>
- Section 401 (federal Clean Water Act) Water Quality Certificate: <http://des.nh.gov/organization/divisions/water/wmb/section401/index.htm>
- Water Use Registration & Reporting Program: <http://des.nh.gov/organization/divisions/water/dwgb/dwssp/wurp/index.htm>

## **NH Geological Survey**

The statements describing geologic conditions and hazards are factual and relevant. Flooding and seismicity represent the greatest vulnerabilities as indicated. Paleontological resources are not an issue, although to the best of my knowledge, no "consultation" was ever initiated with the NH State Geologist as stated on page 6-76. The characterization that NH's igneous and metamorphic rocks are of Precambrian age (page 6-75) is inaccurate but the error is of little consequence given the overall context of the Paleontology section.

NH DES questions whether the stated 200-foot blast radius is sufficient to identify wells at risk from impacts of blasting on water quality and quantity. A 1,000-foot buffer may be more reasonable to establish ambient groundwater conditions in wells prior to blasting and safeguard well owners.

## 2. Water Division

### Resource Report 2 – Water Use and Quality:

Reporting must show in all cases that the Least Environmentally Damaging Practicable Alternative (LEDPA) has been evaluated and selected.

In addition, compensatory wetlands mitigation needs to be provided for unavoidable impacts or conversion that is proposed to take place outside of co-location of the pipeline installation in existing utility ROWs.

Wetlands, stream, river and waterbody crossings must be undertaken under low flow conditions – usually from mid-June through September.

Wet open cut waterbody crossings are discouraged. Dry crossing methods or HDD are preferred.

Page 2-58 reports on the Amherst Conservation Commissions' concern for the proposed HDD crossing of the Souhegan River due to the fluvial erosion which occurs there because of the highly erodible soils along the meandering river course. It is recommended, that if at all possible, an alternative route for the pipeline be found to avoid impacts to the Souhegan River, its' associated oxbow ponds and vernal pools.

All wetland impact areas must be field surveyed / ground truthed in addition to being located on aerial photography to determine soils, vegetation & hydrology of the proposed impact areas.

The identification, location, classification and delineation of wetlands using the USACE Wetlands Delineation Manual of 1987 plus the 2012 Northeast Region supplement as well as the USFWS Cowardin *et al.* 1979 classification system is appropriate. However, section 2.3 Wetlands refers to field surveys conducted in 2014 which covered only a small portion of the areas of wetlands to be impacted. This procedure must be followed for all wetland impact areas whether permanent impact, TWS or ATWS.

The conversion of PFO to PEM wetlands over the pipeline is acceptable. Stream and waterbody crossings must restore the riparian buffer to preexisting conditions.

Section 2.3.1.4 indicates that surveys of permanent and temporary wetlands impact areas have been based on field surveys and publically available data, but are not complete as there are areas where the pipeline is proposed to be installed where access was not available or provided.

Table 2.3-11 shows the total wetland impact in NH to be 73.57 acres.

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### Resource Report 3 – Fish, Wildlife and Vegetation:

Section 3.4.2.2.4 recognizes the need to coordinate with NHHB and NHFG on NH State-Listed Endangered and Threatened species and habitats to develop survey protocols and appropriate protection measures.

A NH-specific Invasive Species Management Plan needs to be developed and implemented prior to the installation of the pipeline (<http://des.nh.gov/organization/divisions/water/wmb/exoticspecies/index.htm>).

The permittee shall provide the NH DES Wetlands Bureau with a restoration monitoring report for all wetland and waterbody impact areas, including photographs taken from established photo stations, with a special emphasis on the removal of any invasive species that might appear in the impact areas.

**Resource Report 4 – Cultural Resources:**

The applicant has coordinated with NH DHR and filed a Request for Project Review. A Phase 1A archaeological survey has been undertaken in addition to an above-ground survey has been initiated.

**Resource Report 7 – Soils:**

See Mapsheet 57 of 99 Figure 7.1-1.

The pipeline segment MP20 to MP21 involving several crossings of the Souhegan River and riparian areas associated with the Souhegan River in Amherst needs to be rerouted to avoid adverse environmental impacts to the River and its environs. This proposed route for the pipeline segment between MP20 and MP21 is certainly not the Least Environmentally Damaging Practicable Alternative.

**Resource Report 10 – Alternatives:**

See Page 10-75 and Mapsheet 1 of 1 Figure 10.3-15

Town of Amherst, NH Segment J MP20.5 to MP21.5 Reason for Minor Deviation: Deviation to reduce number of crossings of Souhegan River. The Souhegan River will be crossed by HDD to mitigate impacts to the river. Status N/A = Not Adopted = deviation not incorporated.

This issue needs to be resolved and an explanation given as to why the pipeline cannot be rerouted to avoid impacts to the Souhegan River altogether!

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The intent of this project was to identify any parcels of land within the proposed right of way for the Kinder Morgan pipeline that were associated with wetland mitigation for a NH DES permit. NH DES reviewed 22 wetland permit files that were identified in the towns the pipeline crosses. These files were identified as permits that provided mitigation in the form of an easement within the Town. The

dates of these files ranged from 1998 to 2014. Table 1 (below) summarizes each site and the data reviewed.

**Table 1 - Relevant Wetland Mitigation Files**

FILE	YEAR	NAME	Address	Town	Database_Notes
1998-00447	1998	SALEM CORP PARK ASSOC	Stiles Road	Salem	Mitigate with two easements totaling 5.34 acres (1.13 acres of upland) and dense plantings. Easement appears to be just to the north.
1998-02267	1998	Town of Londonderry	West Road	Londonderry	No information on mitigation.
2000-00321	2000	K.E.M. REALTY	Off Equestrian Road	Salem	Construct 9,000 sq. ft. of wetlands and provide 8.6 acres of Conservation Easement (4 acres of upland and 4.6 acres of wetland).
2000-00787	2000	FRITCH, UDO	32 Northwestern Drive	Salem	Place approximately 60,000 sq. ft. in conservation easement on new lot 10580 shown as 4.17 acres.
2000-02219	2000	WINDHAM, TOWN OF	Griffin Park Range Rd	Windham	Mitigate by providing an 8.15 acre Conservation Easement. Recorded in Rockingham Cty Registry of Deeds on April 16, 2002, at 10:10 a.m., Bk 3755, Pg2626.
2000-02610	2000	CONTINENTAL PAVING	Colby Road	Litchfield	Mitigate by providing an 8.15 acre Conservation Easement. Rec'd recorded Conservation Easement on 10/31/02 from David Sullivan, Town of Windham (Recorded in Rockingham Cty Registry of Deeds on April 16, 2002, at 10:10 a.m., Bk 3755, Pg2626
2001-01318	2001	ASHWOOD CO.		Milford	Easement information not in file. See also 2004-02718. See attached map.

2002-00312	2002	LITTLE MACKENZIE DEV LCC	Route 31 / Route 124	Greenville/New Ipswich	Preserve 13.8 acres of land in a conservation easement, consisting of approximately 4 acres of jurisdictional wetlands and 9.8 acres of contiguous upland buffer.
2002-00327	2002	MERRIMACK SCH. DIST./SAU 26	Baboosic Lake Road	Merrimack	Thirty five acre conservation easement.
2002-01135	2002	CLUFF RD RLTY TR&BRADDOCK, J.	59 Cluff Road	Salem	File box/cabinet not found. A 7.5-acre parcel must be transferred to the Town of Salem; A conservation easement must be recorded on the 100-foot Prime Wetland buffer; PARCEL NOT CONFIRMED, but nothing on the pipeline in the vicinity of the project location.
2002-01717	2002	AGAWAM LTD / M. FREDERICKS III	Independence Drive	Londonderry	A 25-acre conservation easement to the Town of Londonderry. RECORDED EASEMENT RCVD 3/9/06.
2002-02297	2002	R&D LONDONDERRY DEV., LLC	Wiley Hill Road	Londonderry	Mitigation will be provided as a total of 13.16 acres of land. One parcel is in Londonderry (Lot 5-10-40) and the second in Litchfield (Map 14-48). Identified as Kamko Easement.
2003-01188	2003	H & B HOMES CORP / BENCHMARK E	Rte 28/Rockingham Road	Windham	RECORDED EASEMENT RCVD 10/23/06. Compensatory mitigation for wetlands and surface waters impacts preserve approximately 107.5 acres on-site, including 27.6 acres of wetlands and 79.9 acres of contiguous upland buffer. (Subdivision). Parcel not identified but is well to the northeast of the pipeline. Multiple conservation parcels in the area so need to identify which parcel is for this permit

2003-01296	2003	CHAMBERLAIN, THOMAS & GERTRUDE	Rte 3A	Litchfield	Cabinet is locked. Compensatory mitigation is provided as a 10.2 acre conservation easement deeded to the Town of Litchfield. Parcel identified just to south of project location. Parcel was reported as 10.2 acres, but recorded as 27.8 acres. Note in ConsNH layer identifies it as DES Mitigation parcel.
2003-01878	2003	BACON, HOLLY / BACON, ROBERT	Perry & Old Wilton Rds	Milford	Compensatory Mitigation: A 10 acre conservation easement on the same parcel will be reserved to provide habitat for Bobolinks and other field nesting birds. (Warehouse construction). Parcel not identified and none noted in area but well out of area of pipeline
2004-00670	2004	FRANKLIN PIERCE COLL./KIRSH, B	Mountain Road	Rindge	Preserve 64.2 acres in a conservation easement. RECORDED CE RECVD 8/19/05. Parcel in permit area identified as 49 acres
2005-02083	2005	COMEAU, JOHN & OLIVIA	100 Dutton Rd	Pelham	File not located. See attached Map -Lot 10-10. From Database: Wetland impact mitigation consisting approximately 38 acres of preservation land that includes 15.24 acres of uplands and 22.39 acres of wetlands, vernal pool easements on lots 10-10-11 and 10-10-12, and an amphibian crossing tunnel and an amphibian diversion walls connecting lots 10-10-11 and 10-10-12 to preservation lot 10-10.

2007-00364	2007	H&B HOMES CORP.	Northland Rd Off Rte 28	Windham	Compensatory mitigation consists of a total of 195.08 acres of land that will remain, in perpetuity, in open space through conservation easements, donation of land to the Windham Conservation Commission. (Cluster development). Parcel does not appear on conservation layers, but is well out from the pipeline. Look in file for conservation information.
2007-02278	2007	DODD, FREDERICK J.	357 Robbins Rd	Rindge	Compensatory mitigation for the wetland impacts consists of a conservation easement on a 17 acre parcel created on the project property that will connect to an existing conservation parcel.
2007-02324	2007	CHELSEA PROPERTY GROUP		Merrimack	File not in drawer. Parcel likely not adjacent to impact (Merrimack Outlets). "Grater Road" parcel? However mitigation amount in database indicates 59 acres and these two parcels are only 14.2 acres and are in Amherst. The South Grater Rd. parcel is in Merrimack and is 72 acres but the conservation layer indicates it was added in 1998.
2010-00247	2010	SAU- 87/MASCENIC REG. SCHOOL DI	Turnpike Road (NH Rte 124)	New Ipswich	Mitigation includes preservation of an adjacent ± 45 acre parcel (Greenville Tax Map 2, Lot 8). Need to confirm with tax layer.
2013-02888	2013	COLBURN, CAROLE M.	Osgood Rd	Milford	File not available. Recently recorded, not shown on conservation layer. File information indicated 44.146 acres will remain as open space in perpetuity, as part of 96 acres subdivision.



While DES accepts these parcels as mitigation; the parcels are typically turned over to the Town, or a local conservation group. Many of these parcels have been digitized and are identified in a state-wide conservation layer available on New Hampshire's Statewide Geographic Information System (GIS) Clearinghouse, NH GRANIT (<http://www.granit.unh.edu/>); however, given the limited resources of NH DES, GRANIT and local municipalities, as well as the age of some of these parcels, it is possible some have not been digitized or added to the GRANIT. In addition, since the parcels are not retained by DES, the parcels may not be flagged as mitigation parcels in the GIS layers. To this end, DES has taken the following steps to cross-reference information in NH DES files and available GIS layers to locate the mitigation parcel associated with each file, and its spatial location in reference to the proposed Kinder-Morgan Pipeline.

1. A list of permits with mitigation required was generated from the Wetland's Foxpro database.
2. Permits in the towns which the proposed pipeline crosses were selected by wetland GIS staff.
3. A GIS Map was created with the following information:
  - a. The location of each of the permitted projects identified in Step 2;
  - b. The location of the pipeline as provided by OEP in March 2015;
  - c. The New Hampshire Conservation lands layer (CONSNH) maintained by NH GRANIT (last updated April 2013);
  - d. The State-wide parcel Mosaic parcel data as available on March 31, 2015.
  - e. A DES layer "deslands" was added; and1.)
4. Information in DES's database was reviewed for each file and relevant information regarding the location of the parcel was noted. In some instances a lot and parcel number were referenced; however other times information only the parcel acreage was noted or a Book and Page number. 2.)
5. An attempt was made to locate the paper files for each project in the DES Concord office. The table notes if the file was located. A list of files to be followed up by the Pease office will be forwarded to them. 3.)
6. Based on the information in the database and the paper files, the mitigation parcel was identified on the GIS map. In some instances the parcel was adjacent to the mitigation site (i.e. in housing developments) or a lot number was provided. If only a book and page number for the transaction was noted, the Registry of Deeds was reviewed on line for additional information. 4.)
7. A map for each file number was printed with relevant information and details are noted in the attached table. 5.)
8. Used GIS to select all the parcels that are within 50 feet of the pipeline and the laterals (39 conservation parcels were identified). These selections were reviewed to see if there were any notes within the CONSNH database related to DES Mitigation sites. One site with permit number 1998-02267, associated with a parking area for proposed athletic fields on West Road in

Londonderry was identified from this search. Of note, one other parcel noted during this search (SOURCE TAX MAP 15/8-209,210,211), associated with the Pelham Transfer station, indicated it was 70% Prime Wetland.

6.)

#### Conclusions and Follow-Up

7.) A mitigation parcel associated with Wetlands Permit 2005-02083 is adjacent to the proposed pipeline route from the plan provided by OEP in March, 2015. This parcel is within the current utility corridor based on aerial photographs. The parcel is identified as FID 8170 on the New Hampshire Conservation/Public Lands available from NH GRANIT (<http://www.granit.unh.edu/data/downloadfreedata/alphabetical/databyalpha.html>) and is shown in the attached Figure. While the pipeline as currently shown does not transect this parcel, it is possible access may be necessary on this parcel and is important to note in the event the proposed pipeline route is altered.

8.)

9.) A mitigation parcel associated with Wetlands Permit #1998-02267 is within the proposed pipeline. It is identified in the CONNH Layer as the West Road Fields Easement. TID 197-067-001

#### Follow-Up/Notes

10.) Litchfield parcel 14-48 from 2002-2297 is not in the Cons NH layer/GRANIT.

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#### **NH DES Drinking Water & Groundwater Bureau:**

Overall Document Comment – The Kinder-Morgan project documents focusses on the construction of an underground natural gas pipeline. In New Hampshire, some utility easements allow for the conversion of a natural gas pipeline to a liquid oil pipeline. If this the case with the proposed Kinder Morgan natural gas pipeline, all aspects of the Environmental Report should be updated to assess this pipeline use scenario.

#### Section 2.0 – Overall Comment

This section needs to be update to discuss:

- 1) The location of the pipeline relative to potential groundwater sources of drinking water required to meet future water needs.
- 2) The impact of constructing an extensive pipeline across the state of New Hampshire on water systems that need to install or replace water mains that cross through or are located in close proximity to the pipeline.
- 3) Methods to manage vegetation once the pipeline is constructed and impacts on groundwater and drinking water quality.

#### 2.1.1.4.1 Aquifers

This section states, “Figures 2.1-1a and 2.1-1b in Attachment 2a to this Resource Report depict the bedrock aquifers and surficial aquifers crossed by the proposed Project in New Hampshire.” This is not correct; mapsheets 13-15 and 17-18, which depict the New Hampshire portion of the proposed route, do not depict surficial aquifers. DES suggests that the maps also depict wellhead protection areas (WHPAs) on maps included in this report. WHPAs were clearly considered in the preparation of the draft resource report, since they are mentioned, but the term is also inappropriately applied to the watersheds of Canobie Lake and Arlington Mill Pond, both public water supply sources. Also, the discussion in this section focuses on major stratified-drift aquifers and then on WHPAs for the wells in those aquifers, so it is not clear whether the scope of the discussion has been narrowed down based on the location of major aquifers. The discussion should include all WHPAs: groundwater classified GB, GA1, and GAA; and water supply watersheds.

#### 2.1.1.4.3 Groundwater Quality

Correction: the groundwater quality classifications referred to are actually groundwater protection classifications. They refer to different levels of protection. This section discusses groundwater protection under the NH Groundwater Protection Act (RSA 485-C). Equally important is groundwater protection implemented on the local level through land user ordinances, such as aquifer protection ordinances, adopted and implemented by municipalities as authorized by state land use statutes. This section references the groundwater protection BMPs adopted by NHDES under the RSA 485-C; it should be noted that some aspects of the proposed project are subject to those BMPs. The draft RR states, “The Project is not anticipated to have impacts on any aquifers or public and private water supplies.” With respect to potential impacts to groundwater quality in general and to water supply sources in particular, the EIS should report on any incidents of groundwater or water supply contaminations associated with Tennessee Gas Pipeline’s facilities similar to those associated with the proposed project. The rationale for this request is not that Tennessee’s record is at issue, but that it would be informative with respect to potential impacts associated with these types of facilities.

#### Section 2.1.5 & Table 2.1-2

The document references a using data from NH Granit to identify wells within 200 feet of the proposed pipeline. Wells within 2000 feet not 200 feet need to be identified.

Table 2.1-2 indicates that wells were identified using data from NH Granite and it is unknown if the wells identified or public or private. NHDES has GIS coverages that specifically identify the location of all sources of water for public water systems. Additionally, NHDES has developed methods to identify if a private well is present on a given lot for all areas of New Hampshire. The most current dataset for identifying the location of sources of water for public water systems needs to be utilized. Additionally, revisions to this document should utilize information from NHDES that identifies lots within 2000 feet of the pipeline with private wells.

2.1.5.1.4 – The document states that it is awaiting a response to an December 2014 request to NHDES regarding the location of public water systems. NHDES has responded to multiple requests for data from consultants working on this project. Additionally, this data can be obtained on the internet from NH DES’s OneStop.

2.4.2.3 – Despite the implementation of rock blasting best management practices to avoid the contamination of groundwater, rock blasting has contaminated groundwater sampled from drinking water supply wells up to 2000 feet away in New Hampshire

Section 6.2 – Blasting & Appendix M (Attachment M8 Blasting Management Plan)

The provisions to protect groundwater and public and private water supply wells from becoming contaminated by activities and materials associated with rock blasting are not adequate. In New Hampshire, rock blasting has contaminated groundwater obtained from drinking water wells with nitrate, nitrite and volatile organic compounds. The document needs to be revised to include provisions to:

- 1) Always utilize blasting best management practices to prevent the contamination of groundwater;
- 2) Identify wells within 2,000 feet, opposed to 200 feet where blasting will occur. Monitor the water quality (nitrate, nitrite and volatile organic compounds) in representative wells before , during and after rock blasting;
- 3) Identify methods that will be employed to identify private and public water supply wells
- 4) Identify methods that will be employed to address increased turbidity in wells due to excavating bedrock using mechanical or rock blasting methods.

The provisions proposed in the document do not meet the following standard requirements for NH DES's Alteration of Terrain Applications:

- 1) **[If more than 5000 cubic yards are blasted]** Identify drinking water wells located within 2000 feet of the proposed blasting activities. Develop a groundwater quality sampling program to monitor for nitrate and nitrite either in the drinking water supply wells or in other wells that are representative of the drinking water supply wells in the area. The plan must include pre and post blast water quality monitoring and be approved by NH DES prior to initiating blasting. The groundwater sampling program must be implemented once approved by NH DES.
- 2) **[Applies to all Blasting]** The following Best Management Procedures for blasting shall be complied with:

- (1) Loading practices. The following blasthole loading practices to minimize environmental effects shall be followed:
  - (a) Drilling logs shall be maintained by the driller and communicated directly to the blaster. The logs shall indicate depths and lengths of voids, cavities, and fault zones or other weak zones encountered as well as groundwater conditions.
  - (b) Explosive products shall be managed on-site so that they are either used in the borehole, returned to the delivery vehicle, or placed in secure containers for off-site disposal.
  - (c) Spillage around the borehole shall either be placed in the borehole or cleaned up and returned to an appropriate vehicle for handling or placement in secured

containers for off-site disposal.

Lastly, the document should include provisions to address the potential for rock blasting resulting in the indoor air of nearby structures being contaminated with carbon monoxide.

**NH Geological Survey has commented** With reference to <http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13939516>:

NH DES questions whether the stated 200 foot blast radius is sufficient to identify wells at risk from impacts of blasting on water quality and quantity. A 1,000 foot buffer may be more reasonable to establish ambient groundwater conditions in wells prior to blasting and safeguard well owners.

### 3. Waste Management Division

1. **Resource Report 2, 2.2.5 Contaminated Sediments, page 2-41.** The report mentions that Figure 2.1-3 (sheets 14-18 of 28) depicts the location of known state and federal hazardous waste sites. It appears that it also includes other contaminated sites such as landfills, leaking underground storage tanks and sites listed as “remediation sites” on NH DES’s One Stop web page. The report does not evaluate in detail whether the anticipated construction may encounter contamination (soil, groundwater or wastes) associated with the sites. In some instances where the planned construction is near known contamination sites, pre-construction sampling and assessment may be prudent to determine if contaminated materials will be encountered and to develop to specific plans to manage the contaminated materials. There are numerous asbestos disposal sites in the Nashua-Hudson area that historically received wastes from the former Johns-Manville when it operated. NH DES suggests you add asbestos sites to Figure 2.1-3 to anticipate where asbestos may be encountered and require management during construction.

2. **Resource Report 2, 2.1.1.4.3 Groundwater Quality, page 2-11.** In the discussion of the Groundwater Protection Act RSA 485-C the reference to the Department of Safety “NHDOS” is not correct and should be deleted.

3. **Resource Report 2, 2.1.1.4 Groundwater Hazards, page 2-12.** DES recommends that Figure 2.1-3 and Table M7-A-1 include the location of known asbestos sites that may be near the proposed project. There are a number of asbestos disposal sites in the Nashua and Hudson area that received asbestos waste from the former Johns-Manville manufacturing plant.

1. **Appendix M, Environmental Construction Plan for New Hampshire**

2.

a. Page M-27, Section 4.3 Spill Prevention and Response Plan and Attachment M3 Spill Prevention and Response Plan

i. DES has a fact sheet on notification for spills and the discovery of contamination

<http://des.nh.gov/organization/commissioner/pip/factsheets/rem/documents/rem-13.pdf>

. The report should be updated to include the information in the fact sheet relative to reporting spills.

ii. Please provide a list of materials and quantities expected to be used during the construction of the pipeline such as fuels used for construction vehicles, hazardous wastes, hazardous substances and other chemicals.

iii. In the event of the spill/discharge of oil and/or hazardous wastes or substances the investigation and remediation must be conducted in compliance with Env-Or 600 Contaminated Site Management Rules. These rules contain soil and groundwater clean-up standards and the procedures to be followed to investigate and remediate contamination resulting from a spill or discharge of oil, hazardous waste/substances or other regulated release of contamination.

iv. Section 3.0 of Attachment 3. If any of the locations are a federal small quantity generator or large quantity generator of hazardous waste, New Hampshire law requires compliance with 40 CFR 265.50, Contingency Planning.

b. Page M-28, Section 4.4 Waste Management Plan and Attachment M4

i. Please clarify whether this plan is intended to address wastes produced from the actual activities associated with construction of the pipeline and appurtenances. Attachment M7 addresses unanticipated discovery of contamination from buried wastes, contaminated soil and contaminated groundwater and NH DES provided additional comments to that section.

ii. NH DES requests a more detailed description of the wastes that are anticipated to be generated based on construction of other pipeline projects. For example what types and quantities of hazardous wastes (pipeline sludge, spent pig wastes, sandblast abrasives, paint thinner and solvents), asbestos, PCB wastes and non-hazardous wastes (oily rock/soil, oily rags, sandblast abrasive and general trash/garbage) are generated during construction? The information would be helpful to DES in order to better understand the scope of wastes to be generated during the pipeline construction in New Hampshire. With that additional information NH DES may be able to provide more specific guidance.

iii. PCBs wastes are subject to the federal Toxic Substances Control Act (TSCA) program administered by the U.S. Environmental Protection Agency. Please describe how PCBs wastes are generated during pipeline construction and the expected quantities to be generated during construction in New Hampshire.

iv. Page M4-2 Section 3.1 HAZARDOUS WASTE.

1. A variety of waste streams would be generated during construction and operation of the pipeline, and under the New Hampshire Hazardous Waste Rules, generators of waste are required to determine if that waste is a hazardous waste (see Env-Hw 502.01). The waste management plan (WMP) does a decent job of describing how that will be done in section 2.2. These determinations are the responsibility of the generator.

2. If and when it is determined, that hazardous waste will be generated, please notify NH DES to obtain an EPA ID number by calling the Reporting and Information Management Section (Maria Michel) at 603-271-2921.

3. The WMP uses the term "Large Quantity Generator" where in New Hampshire a generator is either a Full Quantity Generator (basically generates greater than 100 kilograms in any single month), or a Small Quantity Generator (basically generates less than 100 kilograms in each and every month). New Hampshire has certification programs for each of these classifications of generators which will need to be complied

with.

4. New Hampshire also regulates Used Oil as a state hazardous waste, although when it is a “used oil for recycle” it is subject to less stringent standards than a hazardous waste.

5. New Hampshire has specific requirements for the outside storage of hazardous waste which can be found in Env-Hw 507.01(e) which includes set-back requirements, and Env-Hw 509.02(c) which includes a fence, means to control access, and a sign.

6. During construction and operation of the pipeline, any wastes that is generated needs to be managed properly (i.e., not dumped along the pipeline), and if the waste is hazardous waste, the waste needs to be delivered to a facility authorized to accept the waste. Depending on the circumstances, it may be possible to self-transport the hazardous waste but NH DES recommends it be discussed further either by contacting the Hazardous Waste Compliance Section or at a future meeting.

7. The following is the link to the NH DES Hazardous Waste Compliance Section webpage which has information on the Hazardous Waste Rules, including Fact Sheets., <http://des.nh.gov/organization/divisions/waste/hwcb/hwcs/index.htm> .

8. There are different provisions for storing hazardous waste at the site of generation (on-site) and off-site (must be delivered to a permitted TSD facility). Please clarify to what constitutes “on-site” and what constitutes “off-site”. Additionally, specify who is the generator (Morgan Kinder? Contractor? Property Owner?) and the generator’s responsibilities to under New Hampshire Hazardous Waste Rules, including those aspects of the rules that are more stringent than federal requirements, including small quantity generator requirements, and hazardous waste coordinator requirements.

v. Page M4-3 SECTION 3.2, NON-HAZARDOUS WASTE: Last bullet should read “Non-hazardous waste can only be transported to and disposed of at approved facilities”, i.e. it can’t be hauled to any place that is not properly permitted to receive it. Once it leaves the site of generation, in New Hampshire, and with few exceptions, it must go to a permitted transfer station, processing/treatment, or final disposal facility.

vi. Page M4-4 Section 3.3.1, Asbestos/ACM:

1. It is not clear how the asbestos waste might likely be generated, it is difficult to assess the adequacy of the plan. If the asbestos waste is the result of abatement (i.e., the removal of asbestos from structures and roads) the work must be done by a New Hampshire licensed asbestos abatement contractor, in accordance with RSA 141-E and Env-A 1800.

2. First tier Bullet #2:

- Subbullet #2—revise to read: “Gloves and other non-hazardous solid can be added before sealing.”
- Subbullet #4 regarding storage of containers should be moved to be first tier bullet #4, for logic purposes;
- Subbullet #5—for better grammar and clarity, NH DES suggests revising to read: “For accumulation containers, each item placed therein must be individually wrapped and placed in the drum.

3. First tier bullet #3—revise to read: “Mark of label the outer most container with the following information:”

4. First tier bullet #4---the “company-approved disposal facility” must be properly permitted to receive the asbestos. Additionally, in New Hampshire, prior to shipping asbestos waste to a landfill, the landfill must be notified of the pending delivery.

5. First tier bullet #5, allowing asbestos pipe to be sold or transported to scrap dealers or individual buyers---this is not allowed in New Hampshire. Env-Sw 901.05 prohibits reuse of asbestos waste.

6. First tier bullet #6, subbullet #4, referencing use of a “manifest”---a manifest is not required. The correct term is “asbestos shipping papers”.

7. Transportation vehicles must be placarded.

vii. Page M- 28 Section 4.7 Unanticipated Discovery of Contamination Plan and Attachment M7.

1. The plan deals with management of contamination that is discovered during excavation activities for the pipeline and not contaminated wastes/materials generated by the actual construction of the pipelines and appurtenances.

2. The report states that known hazardous waste sites within 0.25 mile of the project were identified (Table M7-A-1 and Figure 2.1-3, sheet 14 of 28 thru sheet 18-28). The sites identified are from NH DES Site Remediation and Groundwater Hazardous Inventory and include a wide range of sites that are known to currently have contamination or had contamination in the past. DES recommends that table and figure also include known asbestos disposal sites, particularly prevalent in the Nashua and Hudson area where there are numerous waste asbestos disposal sites associated with the former Johns Manville manufacturing plant.

3. Several sites were identified relatively close to the pipeline. DES recommends a more detailed analysis of the proposed construction (e.g., depth of construction, need to dewater) near those sites and consideration be given to performing some pre-construction environmental assessment to better analyze whether any contaminated materials (wastes, soil or groundwater) would likely be encountered during the construction activities. And this would apply to the Nashua and Hudson area, where there are numerous asbestos disposal sites and it is common to encounter asbestos wastes during construction

4. As mentioned in a comment above DES included link to a fact sheet outlining the requirements for reporting contamination (oil and hazardous waste).

5. DES request more detailed information on the field screening procedures that will be used. Soil and groundwater with odors or discoloration should be sampled. Liquids other than water should be sampled. The field screening methods (such as photoionization detector (PID)) should be specified. DES also requests a list/table of analytes (e.g. VOC, SVOCs, RCRA metals, TPH, PCBs, pesticides etc.), with their respective analytical methods, that will be sampled should unanticipated/unknown contamination be discovered. DES recommends that the qualified professional doing the assessment and sampling of materials suspected of being contaminated be a professional engineer or professional geologist licensed in New Hampshire.

6. If soil or groundwater contamination is detected above the standards contained in Env-Or 600 Contaminated Site Management Rules, the requirements of those rules shall apply to the investigation and remediation of the contamination.

7. DES recommends the preparation of a materials management plan to deal with different categories of contaminated materials:

- Materials that must be managed as a hazardous waste.
- Contaminated groundwater (exceeds Ambient Groundwater Quality Standards (AGQS) encountered during pipeline construction. The options are off-site disposal at an approved



facility, temporary groundwater discharge permit, USEPA remediation general permit, treatment under an approved remedial action plan, and discharge to a wastewater treatment plant if allowed.

- Non-hazardous contaminated soil.
- Miscellaneous solid waste such as trash, mattresses, demolition debris.
- Mildly contaminated soil/urban fill such as soil that typically contains low concentrations of contaminants (e.g., metals and polyaromatic hydrocarbons) and meets the definition of “background” per Env-Or 602.03.
- TSCA regulated materials (PCBs).

#### 4. Air Resources Division

Resource Report 9, Section 9.1.1.2, Table 9.1.7, p.9-7 shows air quality monitoring data, but does not specify the monitoring period from which these data were taken. The report should indicate the monitoring period for the data.

Resource Report 9, Attachment 9b -Emissions Calculations, Footnote 15, repeated on multiple pages throughout. Footnote 15 cites the 2007 IPCC report values for GHG emissions as *Table 2.14 of Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC - CO<sub>2</sub> = 1, CH<sub>4</sub> = 25, N<sub>2</sub>O = 298*

This report was updated in 2013 and the value for CH<sub>4</sub> was increased to 34. This assessment uses 2013 report values in other places (e.g., Note 8 throughout uses NO<sub>2</sub> factors from a 2013 TCR protocol). The calculations should be updated to use 2013 IPCC values.

Resource Report 9, Section 9.1, p. 9-1: The report notes that detailed compressor station emissions are not yet available. NH DES may have additional comments once detailed compressor station emissions are available.

Resource Report 9, Section 9.1, p. 9-2: A new ozone NAAQS of 140  $\mu\text{g}/\text{m}^3$  announced on 10/1/2015. This new NAAQS should be included in Table 9.1-1.

Resource Report 9, Section 9.1, p. 9-3: The report includes a presumptive conclusion that visibility will not be affected at Class I areas due to distance. Emissions of NO<sub>x</sub> are cumulative in ammonium nitrate formation. This conclusion should be revisited with final emissions, considering all new NO<sub>x</sub> sources.

Resource Report 9, Section 9.1.1.2, p. 9-7: Representative monitoring data for NH should use Londonderry data for CO, O<sub>3</sub>, and SO<sub>2</sub>. For PM<sub>2.5</sub>, use Keene for Cheshire County and Londonderry for remaining portions of affected project area.

Resource Report 9, Section 9.1.1.2, p. 9-8: Currently, the only pollutant in nonattainment in NH is SO<sub>2</sub> (outside project areas as noted). Ozone is currently in attainment state-wide and in maintenance. This is expected to continue to be the case with the new ozone NAAQS. Table on Page 9-13 is correct.

Resource Report 9, Section 9.1.1.2, p. 9-8 & Section 9.1.2.5, p. 9-18: NH recently updated its nonattainment NSR program. The nonattainment NSR major source threshold for NO<sub>x</sub> is now 100 tpy statewide. While NH is currently classified as attainment for ozone, it is part of the Northeast Ozone Transport Region (OTR). NH's presence in the OTR requires implementation of nonattainment NSR based on moderate ozone nonattainment thresholds. This is the source of the 100 tpy NO<sub>x</sub> nonattainment threshold in NH. USEPA approved New Hampshire's updated program in September 2015 (see FR Vol 80 P 57722) <http://www.gpo.gov/fdsys/pkg/FR-2015-09-25/pdf/2015-23176.pdf>.

Resource Report 9, General comment: Cumulative in-state and upwind emissions of NO<sub>x</sub> and PM<sub>2.5</sub> are of air pollution transport concern for ozone and regional haze in the Northeast, especially during the summer ozone season.

Resource Report 9, Attachment 9b -Emissions Calculations, p. 71-93. NOTE 4 references use of The Climate Registry General Reporting Protocol as the source for the HAP emissions factors, but does not say which version of the protocol these factors are from. The most recent version of the protocol should be used and cited.