

PUBLIC NOTICE



**US Army Corps
of Engineers®**
New England District
696 Virginia Road
Concord, MA 01742-2751

Comment Period Begins: October 13, 2015
Comment Period Ends: November 14, 2015
File Number: NAE-2013-02329
InReplying Refer to: Cori M. Rose
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The District Engineer has received a permit application to conduct work in waters of the United States from **TENNESSEE GAS PIPELINE COMPANY (TGPC), 1001 LOUISIANA STREET, HOUSTON, TEXAS 77002**. This work is proposed in various wetlands and waters adjacent to the 200-line and 300-line pipelines in the towns of Sandisfield and Agawam Massachusetts and Suffield and East Granby, Connecticut for the Connecticut Expansion Project. The Massachusetts Loop begins near 42.17810 N Latitude and -73.14507 E Longitude and the Connecticut Loop begins near 42.03339 N Latitude -72.63412 E Longitude.

In the State of Massachusetts the project includes 3.8 miles of new 36-inch pipeline looping in conjunction with the "Massachusetts Loop" and 8.3 miles of new 24-inch pipeline looping in Connecticut for the "Connecticut Loop" project segment. Minor work at an existing compressor station (number 261) in Agawam, Massachusetts and fill for a single permanent access road is also proposed. Work regulated by the Corps is water body crossings and the placement of permanent or temporary fill in wetlands and streams along the proposed natural gas pipeline route for construction and temporary work areas.

The Tennessee Gas Pipeline Company (TennGas) includes other facilities that are outside the purview of the Corps of Engineers (Corps) such as pipe storage yards, cathodic protection and access roads in upland. These facilities will not impact waters of the United States and therefore do not require a permit from the Corps.

Other portions of the proposed project with impact to waters of the United States will be undertaken in the State of New York and this work is the subject of a concurrent application to the New York District Corps of Engineers (NAN-2014-00869-UDA).

The Federal Energy Regulatory Commission (FERC) is the lead Federal agency for this project which is identified as Docket No. CP14-529-000. As the lead agency, FERC will prepare a Draft Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA). The agency issued a *Notice of Schedule for Environmental Review of the Connecticut Expansion Project* on September 1, 2015. The FERC EA will describe the potential environmental impacts of the project and evaluate alternatives and it will also include a review and required consultations under Section 7 of the Endangered Species Act (16 U.S.C. 1531) and Section 106 of the National Historical Preservation Act (NHPA), as well as other applicable Federal regulations. The EA is expected to be published by October 23, 2015 and its release will be announced in the federal register. The public may submit comments directly to the FERC at <http://www.ferc.gov>. Using the "eLibrary" link on the FERC website, select "General Search" from the eLibrary menu, enter the selected date range and the FERC "Docket No." excluding the last three digits (i.e., CP14-529), and follow the instructions. For assistance, call 1-866-208-3676, or e-mail FERCOnlineSupport@ferc.gov.

Project Description: The regulated work proposed by TennGas in this permit application involves the temporary impacts from the discharge of backfill and construction activities over approximately 54.58 acres of waters and wetlands as pipeline trench backfill and discharge of temporary fill or associated disturbance in wetlands and waters for construction in conjunction with the installation of 12.1 miles of new gas pipeline loop known as the "Connecticut Expansion Project". Included in the project is the construction of 11.91 miles of new pipeline with associated rights-of-way (ROW). New ROW will be obtained for both of the project segments. Looping will involve establishment of new ROW of varying widths adjacent to existing corridors with installation of the new pipeline and maintenance of new ROW, as necessary.

This work will result in direct temporary impact to 54.58 acres of wetlands and 205 linear feet waters and temporary secondary impact to 25.43 acres of wetlands. The aquatic resources affected by this project are affiliated with, but not limited to the Clam River, Lower Spectacle Pond, Spectacle Pond Brook, Clay Brook, Muddy Brook, DeGrayes Brook, and Stony Brook. In all it is estimated that 27 waterbodies (11 in Mass. Including Lower Spectacle Pond and 16 in Conn.) and 68 wetland areas (16 in Mass. And 52 in Conn.) will be impacted in the states of Connecticut and Massachusetts. Waters along the proposed pipeline route were documented and delineated by the presence of ordinary high water. Wetlands were field delineated in accordance with the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*.

The purpose of the project is expansion of Tennessee Gas Transmission Company's existing pipeline system to increase natural gas delivery capacity and transportation service up to 72,100 dekatherms per day to the northeast region of the United States for use in northeast markets.

The project pipeline segments are broken down as follows:

Massachusetts Loop 200 Line (Sandisfield, Massachusetts)

This 3.81 mile section of 36-inch pipeline loop, commencing from TennGas' existing Main Line Value 258, will be co-located within or adjacent to TennGas' existing 24-inch 200-1 Line and 30-inch 200-2 Line ROW.

Connecticut Loop 300 Line (Agawam, Massachusetts; Suffield and East Granby, Connecticut)

This 8.30 mile section of 24-inch diameter pipeline loop, commencing from TennGas' Compressor Station 261, will be co-located within or adjacent to TennGas' existing 16-inch 300-1 Line ROW. All except 1,200 feet of the ROW will be located coincident with or directly adjacent to the existing ROW.

The new pipe is proposed to be installed 25 feet away from the nearest existing pipeline and it is anticipated that a construction work area of 110 feet will be needed for the Massachusetts Loop and 100 feet for the Connecticut Loop. As the new pipeline is proposed to be placed within or adjacent to current ROW, the maintained corridor will be widened by 25 feet to accommodate the new pipeline. The Massachusetts loop permanent ROW width will be increased from 75 feet to 100 feet and the Connecticut Loop ROW width will be increased from 50 feet to 75 feet.

Impact to Aquatic Resources:

Temporary impact to wetlands and waters will result from a variety of project-related activities such as installation and removal of erosion and sediment controls (E&SC); water handling, including installation and removal of pumps, and temporary pipe diversions; installation and removal of temporary cofferdams and/or sandbag diversions; and discharge of temporary fill for construction access and/or stockpiling of material for trench backfill. Approximately 25.43 acres (46% of total wetland resource) of forested wetlands and 29.96 acres

(54% of total wetland resource) of non-forested wetlands will be temporarily impacted for pipeline access and construction, including the placement of temporary fill.

Secondary impact to wetlands and waters are those effects on an aquatic ecosystem that are associated with a discharge of fill material, but do not result from the actual placement of the fill. Secondary impacts from the proposed work may include temporary or permanent conversion of forested habitat within the new right of way to scrub shrub or emergent vegetated habitat; temporal loss of forested habitat function as a result of the loss of tree cover/temporary conversion in wetlands for establishment of the construction work area; removal of forest canopy cover over streams for construction installation and/or long-term maintenance within the new ROW; and zone edge effects such as removal of tree canopy cover in close proximity to vernal pools or changes to adjacent hydrology as a result of a reduction in evapotranspiration. Secondary impacts will include, but are not limited to, 25.43 acres of cutting in forested wetland for construction and temporary conversion of these areas to emergent or scrub shrub wetland type (allowed to revegetate to forest over time) after completion of construction within temporary work areas and 9.12 acres of forested wetland conversion to either scrub shrub or emergent wetland type.

Permanent impact to wetlands or waters may include fill for upgrade of permanent access roads or compaction of hydric soils during placement of construction equipment that alters the surface of subsurface movement of water or upheaval (displacement) of soil following the placement of temporarily stock-piled materials. The only discharge of permanent fill with a conversion of wetland to dry land for the project is 0.11 acre associated for a single access road.

Table 2.3-7 Wetland Impact Summary By Wetland Type for the Connecticut Expansion Project								
Facility ID	Palustrine Emergent (acres affected)		Palustrine Forested (acres affected)		Palustrine Scrub-Shrub (acres affected)		Total (acres affected)	
	Construction ^a	Operation ^b	Construction ^a	Operation ^b	Construction ^a	Operation ^b	Construction ^a	Operation ^b
Mass. Loop	3.54	0.04	6.41	2.27	0.21	0.07	10.16	2.41
Conn. Loop	24.32	0	19.02	6.83	1.89	0.15	45.23	6.98
PROJECT TOTAL	27.86	0.04	25.43	9.10	2.10	0.29	55.39	9.39

a: Construction Acreage = all workspace during construction activities (TWS and ATWS plus permanent easement).

b: Operation Acreage = For conventional crossing methods: 30-foot width permanently maintained through forested wetlands, 10-foot width permanently maintained through scrub-shrub wetlands. The only 0.04 acres of operation impacts to PEM are associated with the permanent access road impacts at WMA-24. There are no other operation impacts to PEM wetlands as there is no change in the pre- and post-construction vegetation cover type.

TennGas assessed wetlands within the study corridor and identified those areas that had the potential to serve as vernal pool habitat based on an evaluation of visible vernal pool indicators. Potential vernal pool habitat was characterized in accordance with Corps methodology. A total of 51 vernal pools were identified along the proposed pipeline corridor in Connecticut and Massachusetts. Direct impact from fill or construction is not expected to affect any of these pools. Nineteen (19) pools are partially or wholly located within the currently maintained ROW. Ten vernal pools will be indirectly impacted as a result of vegetation clearing for temporary work space. Upon completion of the work these areas will be allowed to re-vegetate and return to previous community type. Of the total 41 vernal pools will experience long-term permanent secondary impacts from the permanent conversion of forested cover to open vegetative community within 100 feet of the pools.

Wetland and Waterbody Construction Methodology:

Unless a stream is dry and has no perceptible flow at the time of the pipeline crossing, a “dry crossing” method will be used for installation of the pipe. A “dry crossing” method involves installation of a flume pipe(s) and/or a dam and pump before trenching begins to divert the stream flow over the construction area. The practice will allow the stream crossing to take place in drier conditions, isolated from the stream flow. Spoil removed during the trenching will be stored away from the water’s edge and protected by sediment containment structures. Pipe strings are proposed to be fabricated on one bank and either pulled across the stream bottom to the opposite bank, or carried into place and lowered into the trench. Excavation and backfilling of the trench would be accomplished using backhoes or other excavation equipment working from the banks of the waterbody and vegetation will not be cleared for equipment access except over the pipeline trench, within 10 feet of the waterbody.

There are a number of tributaries or wetland areas where the presence of shallow bedrock may require drilling and/or blasting for installation of the pipeline along the existing ROW. In order to identify the need for drilling or blasting at these locations and others throughout the project area, trench crews will drill and/or probe these areas to determine if rock is to be encountered during construction. Should these test holes identify the need for blasting, the crew would prepare the trench line for blasting. When blasting is complete, the mainline tie-in crews would then excavate the trench, install the pipeline, and restore the area. TennGas has identified methodologies for rock removal in its application such as perimeter control blasting procedures and use of impervious plugs to minimize adverse physical and hydrologic and impact to wetlands and waters associated with blasting.

TABLE 3.3-1
ESTIMATED SURFACE AREA OF IMPACTS TO FEDERAL JURISDICTIONAL WETLANDS

Project Activity	Estimated Temporary Effect (Acres)	Estimated Permanent Effect (Acres)
Massachusetts		
Workspace	10.05	2.30
Access Roads	0.00	0.11
Pipeyards/Contractor Yards	0.00	0.00
Total Direct Wetland Effects (Fill) ¹	10.05	0.11
Total Secondary Wetland Effects (Tree Removal in Forested Wetlands) ²	6.41	2.27
Impacts to Stream Bed and Channel	0.11	0.00
Connecticut		
Workspace	44.53	6.85
Access Roads	0.00	<0.01
Pipeyards/Contractor Yards	0.00	0.00
Total Direct Wetland Effects (Fill) ¹	44.53	<0.01

Total Secondary Wetland Effects (Tree Removal in Forested Wetlands) ²	19.02	6.85
Impacts to Stream Bed and Channel	0.27	0.00
Total Project Direct Wetland Effects (Fill)¹	54.58	0.11
Total Project Secondary Wetland Effects (Tree Removal in Forested Wetlands)²	25.43	9.12
Total Stream Bed Impacts	0.38	0.00

1: These impacts represent numbers of acres impacted during construction and operation of the pipeline facilities.

2: These impacts represent numbers of acres of secondary impacts due to vegetation removal. Temporary impacts include all forested wetlands within the Project workspace and facilities. Permanent impacts include those areas that will be maintained in scrub-shrub or emergent wetland during operation of the pipeline.

In general, clearing of vegetation will be minimized for construction of the project since existing ROW and roadways are proposed to be used for a significant portion of the work. To avoid excessive disruption of wetland soils and the native seed and rootstock within, stump removal will be limited to the area immediately over the trench line or to those areas of temporary work space where removal is necessary for safety reasons. Following vegetative clearing above ground, sediment barriers will be installed upslope of wetlands and where necessary to segregate wetlands and waters from ground disruption. All sediment barriers will be maintained during construction and replaced/repaired as necessary until permanent stabilization and/or restoration is complete. If trench dewatering in wetland areas is necessary, pumped water will be discharged into stable, vegetated, upland areas and/or filtered through a filter bag or siltation barrier. No heavily silt-laden water will be allowed to flow into the wetland.

Construction methods are specified to minimize the amount of time and aerial extent that equipment will be operated in wetland areas. The pipeline trench will be excavated across wetland areas by equipment supported on wooden swamp mats or equivalent to minimize the disturbance to wetland soils. The top 12-inches of wetland soil over the trench line in non-inundated areas will be removed, temporarily piled in a ridge along the pipeline trench and segregated by type for reuse. Gaps in the spoil pile will be left at appropriate intervals to provide for natural circulation or drainage of water. If dry conditions exist within the wetland, the pipe fabrication is expected to occur in the wetland. For inundated or saturated wetland conditions, pipe strings are proposed to be fabricated on one bank and either pulled across the excavated trench in the wetland, floated across the wetland, or carried into place and submerged into the trench. Prior to backfilling, trench plugs would be installed where necessary to prevent the subsurface drainage of water from wetlands. After the pipeline is lowered into the trench, wide track bulldozers or backhoes supported on swamp mats would be used to backfill the pipe in the trench. Where topsoil has been segregated from subsoil, the subsoil will be backfilled first followed by the topsoil. Restoration of contours is expected to occur during backfilling. Equipment mats, terra mats, and timber riprap would be removed from wetlands following backfilling. Where wetlands are located at the base of slopes, permanent interceptor dikes and trench plugs would be installed in upland areas adjacent to the wetland boundary. Temporary sediment barriers would be installed where necessary until re-vegetation of adjacent upland areas is successful. Sediment and erosion control barriers will be removed once the site is fully stabilized.

Avoidance, Minimization and Compensation:

The applicant prepared an analysis of system and route alternatives (both major and minor) to the proposed project in addition to added compression through station upgrades and/or looping with different diameter pipe along its existing corridors. It screened a range of options that would accomplish the goal of gas transportation service to the identified market while working to avoid or minimize potential adverse environmental impact to the greatest extent practicable.

Routing for the pipeline loop was designed to maximize use of the existing ROW. Workspace within wetlands is limited to 75 feet in width unless topographic conditions or other safety concerns require additional workspace. These site specific areas will be identified and evaluated by the Corps for further minimization opportunities. Long-term maintenance will be limited to a 10-foot permanent ROW centered over the pipeline in emergent wetlands and 30-feet where shrubs and trees will be selectively cleared and trimmed to ensure integrity of the new pipeline.

On-site restoration for temporarily impacted wetland habitat is proposed. Within 7 working days of substrate replacement, weather condition permitting, palustrine inland wetlands that are not ponded will typically be seeded with New England Erosion Control/Restoration Mix for detention basins and moist sites (or equivalent) at 35 pounds per acre.

Upon construction completion all temporary work areas will be restored. Topsoil, contour elevations and hydrologic patterns will be restored, and disturbed areas will be reseeded or replanted to promote the reestablishment of native hydrophytic vegetation. Re-use of the existing wetland topsoils will maximize the rapid re-growth of wetland herbaceous species from the propagules within these soils (e.g., seeds and roots). Forested Wetlands (PFOs) will be either converted to emergent or low scrub-shrub vegetated cover types, within a 30 foot wide area centered over the new ROW, or restored to preconstruction PFO conditions. Such restoration may include re-planting efforts, as required by federal or state agencies, combined with invasive species control and post planting monitoring. Plant species that readily resprout from stumps (e.g., red maple) would be allowed to grow in place. Where construction has removed stumps or where resprouting does not appear feasible, a plan would be initiated to re-establish the PFO to a similar species composition and density as existed prior to construction. Native, locally-sourced plant materials would be used. All tree plantings would be potted nursery stock, at least 24-inches tall. To reduce competition from weedy species, each planted tree would be surrounded with a thick, organic mulch layer, at least four inches thick and with a radius of at least four-feet centered on the plant. Rodent guards would be placed around each tree, to a height of at least 12 inches above the ground.

Additionally, TennGas will conduct post-construction maintenance and monitoring of the ROW in affected wetlands to assess the success of restoration and re-vegetation. Monitoring efforts would include documenting occurrences of exotic invasive species to compare to pre-construction conditions.

On-site restoration for stream crossings will re-establish the original stream bed and bank contours, and mulch, jute thatching, or bonded fiber blankets are to be installed on the stream banks to prevent erosion and encourage reestablishment of vegetation cover. Disturbed riparian areas will be re-vegetated with conservation grasses and legumes in accordance with the recommended Upland Seed Mix. Where necessary, slope breakers (i.e., interceptor dikes) would be installed adjacent to stream banks to minimize the potential for erosion. Temporary sediment barriers, such as silt fence or straw bales, would be maintained across the ROW until a permanent vegetation cover is established.

CENAE-R
FILE NO. NAE-2013-2329

To compensate for unavoidable impacts to waters of the United States as a result of the intended work, the applicant proposes to make payment to the Audubon Connecticut In-Lieu Fee Program in Connecticut and a combination of Permittee Responsible mitigation and the Commonwealth of Massachusetts In-Lieu Fee Program in Massachusetts.

Project Purpose:

An overview of the proposed pipeline route and typical methodologies for waterway and wetland crossings is attached. Detailed water of the United States impact area crossings are shown on project plans entitled "CONNECTICUT EXPANSION CONNECTICUT LOOP 300" in 65 sheets, dated June 30, 2014 revised through July 17, 2014 and "CONNECTICUT EXPANSION MASSACHUSETTS LOOP 200-3" in 19 sheets dated July 2, 2014 revised through September 15, 2014 . A full site of the project's site specific wetland crossing plans, the project's full-color Wetland and Waterway Alignment Sheets" (13 sheets) and the FERC Draft Environmental Assessment (when available) will be available for viewing and downloaded off of the New England District Corps of Engineers website at:

[http://www.nae.usace.army.mil/Missions/Regulatory/PublicNoticesNAE-2013-02329 Tennessee Gas Pipeline Company.pdf](http://www.nae.usace.army.mil/Missions/Regulatory/PublicNoticesNAE-2013-02329%20Tennessee%20Gas%20Pipeline%20Company.pdf)

The United States Army Corps of Engineers neither favors nor opposed the proposed construction work. The purpose of this public notice is to announce that the Corps of Engineers is reviewing activities within wetlands and waters associated with the proposed expansion of these facilities and to obtain public comment specific to those components of the project that may have an impact to waters of the United States.

AUTHORITY: **Permits are required pursuant to:**
 Section 10 of the Rivers and Harbors Act of 1899
 Section 404 of the Clean Water Act
 Section 103 of the Marine Protection, Research and Sanctuaries Act

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

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Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972, as amended.

Besides FERC, the proposed work is also being coordinated with the following Federal, State and local agencies:

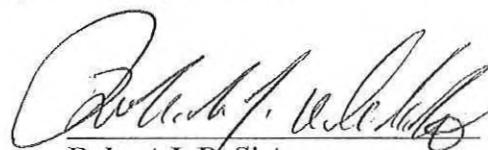
- U.S. Environmental Protection Agency
- U.S. Department of the Interior, Fish and Wildlife Service
- Connecticut Depts. of Energy and Environmental Protection, Transportation, Historical Commission
- Massachusetts Depts. of Environmental Protection, Transportation and Natural Heritage

All comments regarding the aforementioned permit application should be submitted in writing and reach this office before the expiration date of this notice, otherwise, it will be presumed that there are no objections to the activity. All comments provided to this office will become a part of the public record for this action.

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. Comments should be submitted in writing by the above date. If you have any questions, please contact Ms. Cori M. Rose at (978) 318-8306, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.



Robert J. DeSista
Chief, Permits and Enforcement Branch
New England Regulatory Division

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If you would prefer not to continue receiving Public Notices by email, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at bettina.m.chaisson@usace.army.mil. You may also check here () and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME: _____

ADDRESS: _____

PHONE: _____

