

# AGRICULTURAL IMPACT MINIMIZATION PLAN

Methods, approaches, and procedures to minimize active agricultural land impacts during pipeline construction, surface restoration, and pipeline operation.





#### PennEast Pipeline Company, LLC

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NJR Pipeline Company; PSEG Power; SJI Midstream; Southern Company Gas; Spectra Energy Partners; and UGI Energy Services (UGIES) are the member companies that form PennEast Pipeline Company LLC. Combined, the member companies have safely and reliably delivered energy to Pennsylvania and New Jersey consumers for more than 400 years.

## **Purpose**

The purpose of this plan is to outline how PennEast Pipeline Company LLC and its contractors (PennEast) will work with landowners during the construction, surface restoration and operation of the Pipeline to minimize impacts on areas available for agriculture.

# **Applicability**

The methods, approaches, and procedures described in this plan apply to active agricultural lands, defined as land that actively is managed for cropland, hay or pasture. If the construction Best Management Practices (BMPs) within this plan do not fully address the issues on a specific parcel of agricultural land, PennEast will negotiate mitigation efforts directly with the landowner whose property is involved. For preserved farm properties, negotiations will include SADC, CADB, and nonprofit easement partners.

### **Communication**

Prior to the construction of the Pipeline, PennEast will provide to each landowner, landowner's designate and/or tenant, the contact information for the PennEast representative assigned to that geographical area. The representative is responsible for serving as the liaison on behalf of PennEast and will respond promptly to any landowner and/or tenant concerns or issues during construction and long-term operational activities. Prior to beginning construction, PennEast will provide landowners and tenant farmers of active agricultural lands with as much notice as possible and in most instances at least two weeks' notice will be provided.

For preserved farms and ADA lands, PennEast will provide to the SADC, CADB and/or nonprofit holder of development easements the contact information for the PennEast liaison assigned to their geographical area. The PennEast liaison will be responsible for soliciting and transmitting the concerns of the SADC and easement shareholders.

# CONSTRUCTION BEST MANAGEMENT PRACTICES



#### **Soil Disturbance**

Areas of soil disturbance, defined as topsoil stripping, grading, stockpiling, and excavation, material storage, and vehicular traffic, will be limited to approved construction right of way; temporary work space areas; pipe storage yards; borrow and disposal areas; access roads; and other areas approved in the Federal Energy Regulatory Commission (FERC) Orders.

### **Clearing and Grubbing**

Removal of existing vegetation will be conducted using mechanical and manual methods, depending on terrain and seasonal conditions. PennEast will not use herbicides.

# **Topsoil Segregation**

To minimize impacts on agricultural land, topsoil will be stripped to a depth of up to 12 inches and segregated from subsoil to prevent mixing of soils in either the full work area or in the trench and subsoil storage area, unless the landowner or land management agency specifically approves otherwise.

Topsoil segregation will avoid issues such as topsoil mixing from deep rutting and topsoil compaction. Topsoil may not be intermixed with subsoil materials. Topsoil will be stored in a windrow parallel to the Pipeline trench in such a manner that it will not become intermixed with subsoil materials. Property owners may use Topsoil, but PennEast will not.

- 1. The salvaged topsoil and subsoil will be maintained separately throughout construction activities;
- 2. Segregated topsoil will only be used to restore the surface area of the disturbed area.
- 3. Topsoil piles will be stabilized using approved temporary control measures to prevent loss due to wind and water erosion; monitored for noxious weed growth and managed if necessary; and restrict access from equipment unless required for stabilization or site restoration activities.
- 4. Subsoil will not be stored directly on unstripped topsoil without a barrier. Subsoil will not be spread over the surface of farmland as a means of disposing of excess material.
- 5. Segregated topsoil will be returned to the property from which it was removed, and topsoil will not be mixed or utilized on adjacent properties; and
- 6. PennEast will work with the landowner to identify black cherry trees located on the right of way near active livestock use areas during the construction plan development. Wilted black cherry tree vegetation is toxic to livestock. It will not be stockpiled in areas accessible to livestock. During the clearing phase, such vegetation will be disposed in a manner that prevents contact with livestock.
- 7. Movement of topsoil will be minimized to limit compaction and destruction of aggregates.
- 8. PennEast will limit work within agricultural lands when soil moisture is above field capacity to reduce compaction.



### **Drain Tiles**

- 1. Existing drain tiles will be identified and located before construction as best as reasonably possible with landowner coordination, use of available mapping, tile probes, and hand tools.
- 2. Existing drain tiles within the area of disturbance will be checked for damage and farmer will be compensated for any crop damages or loss due to the drain failure outside of the easement area.
- 3. Damaged drain tiles will be permanently repaired by qualified drain-tile specialists within 14 days of construction completion, and before the pipeline trench is backfilled, weather and soil conditions permitting. PennEast will coordinate with the landowner to continue to monitor drain tiles post-construction to ensure repairs are properly functioning. Repairs will be made conforming to NRCS guidelines.

# **Irrigation Systems**

Water flow in irrigation systems will be maintained unless shutoff is coordinated with affected parties.

### **Depth & Cover**

In agricultural lands, the Pipeline will be constructed with a minimum cover of four feet, except where rock prevents this depth. In areas where bedrock prevents minimum cover depth, efforts will be made to bury pipe such that the top of pipe is located a minimum of 6 inches below the top of bedrock profile to protect pipe from farming activities. If specific farming operations require more than four feet of cover, the minimum cover will be negotiated with that specific landowner.

### **Temporary Roads**

The location of temporary roads to be used for construction purposes will be negotiated with the landowner and the tenant farmer if applicable. The temporary roads will be designed not to impede proper drainage and will be built to minimize soil erosion on or near the temporary roads. Every attempt will be made to use existing farm lanes for access and to repair damages to the existing lanes. Upon construction completion, temporary roads might be left intact through mutual agreement of the landowner, the tenant farmer (if applicable) and PennEast unless otherwise restricted by federal, state or local regulations. If the temporary roads are to be removed, the right of way upon which the temporary roads are constructed will be returned to its previous use and restored to a condition equivalent to what existed prior to construction.

### **Temporary Staging Areas**

The location of temporary staging areas to be used for construction purposes will be negotiated with the landowner. Upon construction completion, any area used as a temporary staging area will be returned to its previous use and restored to a condition equivalent to what existed prior to construction.

# **Dewatering Activities**

No backfilling will be done in water-filled trenches. All freestanding water will be removed prior to any back filling. In the event it becomes necessary to pump water from open trenches, PennEast will pump the water in a manner that will avoid damaging adjacent agricultural land, crops, and/or pasture. Such damages include, but are not limited to: inundation of crops for more than 24 hours; sheet and rill erosion; discharge of sediment in ditches and other water courses; and the deposition of gravel in fields, pastures, and any water courses. All pumping of water will comply with existing drainage laws, local ordinances relating to such activities and provisions of the Clean Water Act.

# Temporary Erosion Control

- 1
- Temporary erosion controls will be installed according to the requirements of the applicable permit(s). Control measures will also comply with the deed of easement, if preserved farmland. PennEast will coordinate with SADC, local soil district, state soil committee, NJDA Agricultural and Natural Resources to address specific concerns.
- 2
- Temporary erosion controls will be installed promptly following soil disturbance and will be maintained and reinstalled as necessary during construction.
- 3
- Temporary erosion control measures could include: silt socks; silt fence; temporary rock construction entrances; temporary mulch on segregated topsoil; and water bars.



### Cleanup

Cleanup operations will begin promptly following backfill operations. Final grading, topsoil replacement and installation of permanent erosion control structures will be completed within 20 days after backfilling the trench (10 days in residential areas). If seasonal or other weather conditions prevent compliance with these timeframes, temporary erosion controls (i.e., temporary slope breakers, sediment barriers, and mulch) will be maintained until conditions allow completion of clean-up.

### **Debris Removal**

PennEast will ensure the regular collection, containment and appropriate disposal of excess construction materials and debris (e.g., timber, slash, mats, garbage, drill cuttings and fluids, excess rock) throughout the construction process.

### **Rock Removal**

The Pipeline trench, bore pits or other excavations may be backfilled with soil containing rocks consistent in concentration and size with that existing prior to the Pipeline's construction and similar to adjacent areas not disturbed by construction. In agricultural lands, backfill material in the top 36 inches will be consistent in rock concentration and size as adjacent unaffected areas. Rock backfill in the agricultural lands will be done in the excavations at or below the top of the bedrock profile.

### **Trench Breakers**

Permanent trench breakers will be installed pursuant to the Project Erosion & Sedimentation Control Plan and in compliance with permit conditions. The construction right of way will be restored to preconstruction contours, except for water bars.

### **Compaction & Rutting**

During restoration, topsoil and subsoil will be tested for compaction at regular intervals and compared to similar soil types in undisturbed areas to approximate pre-construction conditions. PennEast will use penetrometers or other appropriate devices to conduct the tests and will maintain detailed records of the test results. Additional plowing or tilling will be performed if additional compaction occurs from subsequent construction and cleanup activities. Plowing/ripping and disking will be done at a time when the soil is dry enough for normal tillage operations to occur on undisturbed farmland adjacent to the areas involved.

### **Seeding & Revegetation**

Any seeding performed will comply with permit requirements and in agreement with landowner's designated seed mix pursuant to the terms of the individual landowner easement agreement(s). Lime and Fertilizer requirements will be determined through soil sampling / testing.

### Pre- & Post-construction Yield & Monitoring

PennEast will be responsible for ensuring the reestablishment of agricultural land productivity:

- 1. PennEast will retain a consultant to measure crop yields pre- and post-construction and in cooperation with the landowner or tenant farmer (if applicable). Consideration for time of year of measurement, historical rainfall, soil moisture content, and other appropriate conditions will be incorporated.
- 2. PennEast will conduct follow-up inspections of all disturbed areas, as necessary, to determine the success of revegetation and address landowner or tenant farmer concerns. At a minimum, PennEast will conduct inspections during the first three years after construction. Generally, this time period allows crop yields to show soil quality has not been impacted negatively by construction.
- 3. PennEast does not anticipate encountering acidproducing soil deposits in either Pennsylvania or New Jersey. According to the New Jersey Department of Environmental Protection

- (NJDEP) the Project site and vicinity does not contain any soil types with potential to contain acid producing soil deposits in New Jersey. If acid-producing soils are encountered during construction, BMPs will be implemented as recommended in the New Jersey Flood Hazard Area Control Act Technical Manual (NJDEP, 2008).
- 4. PennEast will continue restoration efforts until monitoring proves disturbed crop areas are producing yields inline with undisturbed crop areas.
- 5. Drainage and irrigation systems will be monitored until restoration is successful. Problems resulting from construction will be corrected promptly.
- 6. Unless other mutual arrangements have been reached between the landowner and PennEast, crop yield restoration will be considered separate and apart from the compensation provided to the landowner for the easement and any damages or crop loss during construction.

### **Land Leveling**

PennEast will restore the disturbed construction areas to its pre-construction elevation and contour as near as practicable. PennEast will provide landowners with contact information to enable them to request certain land-leveling activities if uneven settling or surface drainage problems develop. PennEast will provide the land leveling efforts, weather and access permitting and to the extent such efforts do not violate governmental agency permits or approvals. Again, water bars will remain.

### **Fencing**

All fencing and gates removed for the installation of the pipeline will be replaced or installed according to the landowner's specifications and, at minimum, meeting NRCS standards. Temporary fencing will be provided as necessary to restrict access to active work areas by livestock until there is adequate vegetative cover over the work area.

### **Pipeline Markers**

Unless specified by law, pipeline markers shall be located at roads, fence lines and edge of field boundaries where they will not be damaged or disrupt farming operations.



- Environmental Inspectors will be assigned to each construction spread during construction and restoration. Environmental Inspectors assigned to agricultural lands will be experienced in pipeline construction methods on agricultural lands.
- 2. Environmental Inspectors shall have the authority to stop activities that violate the environmental conditions of FERC's Orders; stipulations of other environmental permits or approvals or landowner easement agreements; recorded deeds of easement, including farmland preservation program easements; and to order appropriate corrective action.
- 3. Environmental Inspectors will be responsible for inspecting construction activities for compliance with the environmental conditions of FERC Orders, the mitigation measures proposed, the requirements of other environmental permits and approvals, the environmental requirements in landowner easement agreements, and the terms of the Agricultural Impact Minimization Plan.
- 4. Environmental Inspectors will verify that the approved limits of disturbance are marked and maintained throughout construction.
- Environmental Inspectors will inspect erosion control measures and identify needs and will stop construction activities until proper control measures are in place.



PennEast shall maintain records that identify by milepost:

- 1. method of application, application rate, and type of fertilizer, pH modifying agent, and seed used;
- acreage treated;
- dates of backfilling and seeding;
- 4. names of landowners requesting special seeding treatment and a description of the follow-up actions;

- 5. the location of any subsurface drainage repairs or improvements made during restoration; and
- 6. any problem areas and how they were addressed.

PennEast will file with FERC quarterly activity reports documenting the results of follow-up inspections required pursuant to the FERC Plan; any problem areas, including those identified by the landowner; and corrective actions taken for at least two years following construction.

### **Easement Process**

PennEast will negotiate easement agreements with individual landowners. In addition to including the terms relating to the temporary and permanent easements, agreements for agricultural lands will include a section addressing the loss of crops during construction. For preserved farm properties, negotiations will include SADC, CADB, and nonprofit easement partners.



# For Additional Information:

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