

**ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE**

and

**DOMINION ENERGY TRANSMISSION, INC.
SUPPLY HEADER PROJECT**

Implementation Plan

EC23 Attachment 1

Update to the *Timber Removal Plan*



ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE
Docket Nos. CP15-554-000
CP15-554-001

and



DOMINION ENERGY
TRANSMISSION, INC.
SUPPLY HEADER PROJECT
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Timber Removal Plan

Rev. 2

Prepared by



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LIST OF ACRONYMS AND ABBREVIATIONS

ACP	Atlantic Coast Pipeline
Atlantic	Atlantic Coast Pipeline, LLC
ATWS	additional temporary workspace
COM Plan	Construction, Operation, and Maintenance Plan
DETI	Dominion Energy Transmission, Inc.
EI	Environmental Inspector
FS	Forest Service
GWNF	George Washington National Forest
HDD	horizontal directional drill
LRMP	Land and Resource Management Plan
MNF	Monongahela National Forest
NFS	National Forest System
NPS	National Park Service
Plan	Upland Erosion Control, Revegetation, and Maintenance Plan
Procedures	Wetland and Waterbody Construction and Mitigation Procedures
Projects	Atlantic Coast Pipeline and Supply Header Projects
SHP	Supply Header Project

1.0 INTRODUCTION

Atlantic Coast Pipeline, LLC (Atlantic) – a company formed by four major energy companies – Dominion Energy; Duke Energy Corporation; Piedmont Natural Gas Co., Inc.; and Southern Company Gas – proposes to construct and operate approximately 600 miles of natural gas transmission pipelines and associated aboveground facilities in West Virginia, Virginia, and North Carolina. This Project, referred to as the Atlantic Coast Pipeline (ACP), will deliver up to 1.5 million dekatherms per day of natural gas from supply areas in the Appalachian region to demand areas in Virginia and North Carolina. Atlantic has contracted with Dominion Energy Transmission, Inc. (DETI), a subsidiary of Dominion Energy, to construct and operate the ACP on behalf of Atlantic.

In conjunction with the ACP, DETI proposes to construct and operate approximately 37.5 miles of pipeline loop and modify existing compression facilities in Pennsylvania and West Virginia. This Project, referred to as the Supply Header Project (SHP), will enable DETI to provide firm transportation service to various customers, including Atlantic.

Subject to receipt of the required permits and regulatory approvals, initial construction activities (e.g., timber removal and preparation of contractor yards and access roads) are expected to begin in November 2017. The ACP pipeline will be built along 17 spreads, 10 of which are scheduled to begin timber removal in November 2017 and 7 of which are scheduled to begin timber removal in November 2018. Timber removal for the SHP is scheduled to begin in November 2017, except for a short segment in Westmoreland County, Pennsylvania, which is scheduled to commence in November 2018. It is anticipated that all facilities will be placed in service by the fourth quarter of 2019. Key milestone dates for the construction schedule are summarized in Table 1-1.

TABLE 1.1				
Construction Schedule by Spread for the Atlantic Coast Pipeline and Supply Header Project ^a				
Spread	Approximate Mileposts	Counties/Cities and States/Commonwealths	Begin Construction	Finish Construction ^d
ATLANTIC COAST PIPELINE				
Initial Construction Activities				
Initial Site Preparation (2018 spreads)	By spread	See below	November 2017	1Q 2018
Tree Clearing (2018 spreads) ^{b,c}	By spread	See below	November 2017	1Q 2018
Initial Site Preparation (2019 spreads)	By spread	See below	September 2018	1Q 2019
Tree Clearing (2019 spreads) ^{b,c}	By spread	See below	November 2018	1Q 2019
Construction of Pipeline				
Spread 1-1 (AP-1)	0.0–17.2	Harrison, and Lewis Counties, WV	April 2019	4Q 2019
Spread 1-2 (AP-1)	17.2–31.6	Lewis and Upshur Counties, WV	April 2019	4Q 2019
Spread 2-1 (AP-1) ^f	31.6–47.3	Upshur and Randolph Counties, WV	April 2018	4Q 2018
Spread 2-2 (AP-1) ^f	47.3–56.1	Randolph County, WV	April 2018	4Q 2018
Spread 2A (AP-1) ^f	56.1–65.4	Randolph County, WV	April 2018	4Q 2018
Spread 3 (AP-1)	65.4–79.2	Randolph and Pocahontas Counties, WV	April 2019	4Q 2019
Spread 3A (AP-1) ^f	79.2–91.3	Pocahontas County, WV and Highland County, VA	April 2018	4Q 2018
Spread 4 (AP-1)	91.3–103.1	Highland and Bath Counties, VA	April 2019	4Q 2019
Spread 4A (AP-1) ^f	103.1–125.9	Bath and Augusta Counties, VA	April 2018	4Q 2018
Spread 5 (AP-1) ^g	125.9–183.3	Augusta and Nelson Counties, VA	February 2019	4Q 2019

TABLE 1.1 (continued)

Construction Schedule by Spread for the Atlantic Coast Pipeline and Supply Header Project ^a

Spread	Approximate Mileposts	Counties/Cities and States/Commonwealths	Begin Construction	Finish Construction ^d
Spread 6 (AP-1) ^e	183.3–239.6	Nelson, Buckingham, Cumberland, Prince Edward, and Nottoway Counties, VA	February 2018	4Q 2018
Spread 7 (AP-1)	239.6–300	Nottoway, Dinwiddie, Brunswick, and Greenville Counties, VA, and Northampton County, NC	February 2019	4Q 2019
Spread 8 (AP-2)	0.0–61.6	Northampton, Halifax, and Nash Counties, NC	February 2018	4Q 2018
Spread 9 (AP-2)	61.6–125.0	Nash, Wilson, Johnston, Sampson, and Cumberland Counties, NC	February 2019	4Q 2019
Spread 10 (AP-2)	125.0–183.0	Cumberland and Robeson Counties, NC	February 2018	4Q 2018
Spread 11 (AP-3)	0.0–83.0	Northampton County, NC, Greenville and Southampton Counties, VA, and the Cities of Suffolk and Chesapeake, VA	February 2018	4Q 2018
Spread 12 (AP-4; AP-5) ^e	0.0–0.4; 0.0–1.1	Brunswick County, VA; Greenville County, VA	February 2018	4Q 2018
Construction of Compressor Stations				
Compressor Station 1	7.6	Lewis County, WV	November 2017	4Q 2019
Compressor Station 2	191.5	Buckingham County, VA	November 2017	4Q 2019
Compressor Station 3	300.1	Northampton County, NC	November 2017	4Q 2019
Construction of Metering and Regulating Stations				
Kincheloe	7.6	Lewis County, WV	November 2017	4Q 2019
Long Run	47.2	Randolph County, WV	April 2018	4Q 2019
Woods Corner	191.5	Buckingham County, VA	November 2017	4Q 2019
Smithfield	92.7	Johnston County, NC	November 2017	3Q 2019
Fayetteville	132.9	Johnston County, NC	February 2018	3Q 2019
Pembroke	183.0	Robeson County, NC	March 2018	3Q 2019
Elizabeth River	83.0	City of Chesapeake, VA	April 2018	3Q 2019
Brunswick	0.4	Brunswick County, VA	January 2018	3Q 2019
Greenville	1.1	Greenville County, VA	February 2018	3Q 2019
SUPPLY HEADER PROJECT				
Initial Construction Activities				
Initial Site Preparation (Spread 13)	By spread	See below	November 2017	1Q 2018
Tree Clearing (Spread 13) ^{b, c}	By spread	See below	November 2017	1Q 2018
Initial Site Preparation (Spread 14)	By spread	See below	November 2018	1Q 2019
Tree Clearing (Spread 14) ^{b, c}	By spread	See below	November 2018	1Q 2019
Construction of Pipeline Spreads				
Spread 13 (TL-635)	0.0–33.6	Wetzel, Doddridge, Tyler, and Harrison Counties, WV	April 2018	4Q 2019
Spread 14 (TL-636)	0.0–3.9	Westmoreland County, PA	January 2019	4Q 2019
Construction of Compressor Station Modifications				
JB Tonkin	0.0	Westmoreland County, PA	February 2018	3Q 2019
Crayne	NA	Greene County, PA	February 2018	3Q 2019
Burch Ridge	NA	Marshall County, WV	April 2019	4Q 2019
Mockingbird Hill	0.0	Wetzel County, WV	February 2018	3Q 2019
M&R Stations				
CNX	NA	Lewis County, WV	January 2019	4Q 2019
Abandonment of Gathering Compressor Units				
Hastings	NA	Wetzel County, WV	January 2019	4Q 2019

TABLE 1.1 Construction Schedule by Spread for the Atlantic Coast Pipeline and Supply Header Project ^a				
Spread	Approximate Mileposts	Counties/Cities and States/Commonwealths	Begin Construction	Finish Construction ^d
^a	The number and timing of the construction spreads are subject to change dependent upon construction and permit requirements.			
^b	The start of tree removal is dependent upon the results of the environmental surveys and agency consultations.			
^c	Including tree removal for aboveground facilities, access roads, and contractor yards. Tree clearing for construction spreads 1-1, 1-2, 3, 4, Blue Ridge Parkway HDD, and James River HDD will take place in 2018.			
^d	The finish construction date refers to the end of mechanical construction; additional restoration and post construction activity is expected to occur in the Project area beyond the timeframe reflected here. 1Q = first quarter; 2Q = second quarter; 3Q = third quarter; 4Q = fourth quarter.			
^e	Spread 12 will be completed with spread 11 and is counted as one spread.			
^f	Hydrostatic test and remaining cleanup will be completed by the 3Q of 2019.			
^g	Blue Ridge Parkway and James River HDDs will be constructed in 2018.			

2.0 PURPOSE

The Projects cross numerous wooded areas, some of which contain merchantable timber. The purpose of this *Timber Removal Plan* is to describe how timber removal activities will be conducted and to identify measures for reducing impacts and stabilizing areas where timber is removed. This plan augments the other construction, restoration, and mitigation plans prepared for the Projects. All applicable provisions of other plans apply to timber removal activities (e.g., the equipment refueling procedures described in the *Spill Prevention, Control, and Countermeasures Plan*).

3.0 TRAINING

Prior to the start of construction, Atlantic and DETI will conduct environmental training for Company and Contractor ¹ personnel. The training program will focus on the Federal Energy Regulatory Commission’s *Upland Erosion Control, Revegetation, and Maintenance Plan* (Plan) and *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures); other construction, restoration, and mitigation plans, including this *Timber Removal Plan*; and applicable permit conditions. The training program will highlight requirements or issues that are unique to the construction spread, as appropriate. In addition, Atlantic and DETI will provide large-group training sessions before each work crew commences construction with periodic follow-up training for groups of newly assigned personnel.

4.0 JURISDICTIONS

The ACP crosses forested public lands under the jurisdiction of the U.S. Department of Agriculture’s Forest Service (FS), National Park Service (NPS), State of West Virginia, and Commonwealth of Virginia, as well as private timbered areas, including commercial tree plantations in West Virginia, Virginia, and North Carolina. The SHP crosses forested public lands under the jurisdiction of the State of West Virginia as well as private timbered areas, including commercial tree plantations in West Virginia and Pennsylvania.

¹ Contractor refers to the company or companies retained by Atlantic/DETI or another contractor to construct the proposed facilities.

Timber removal on the Monongahela National Forest (MNF) in West Virginia and George Washington National Forest (GWNF) in Virginia is addressed in a *Construction, Operations, and Maintenance Plan* (COM Plan). The COM Plan has been written to conform to the standards and guidelines contained within the Land and Resource Management Plans (LRMPs) of both National Forests. Where a particular Project activity may not be able to conform to particular standards and guidelines, for example logging on steep slopes, a project-specific Forest Plan Amendment may be required from the FS before that activity can be authorized.

The ACP will cross under the Appalachian National Scenic Trail (ANST) on NFS lands administered by the GWNF. Atlantic is planning to cross the ANST, as well as the nearby Blue Ridge Parkway corridor on NPS land, with a single Horizontal Directional Drill (HDD), eliminating the need to clear trees at these sensitive crossing locations.

The ACP also will cross non-commercial forested lands on the Seneca State Forest, which is managed by the West Virginia Division of Forestry; and the James River Wildlife Management Area, which is managed by the Virginia Department of Game and Inland Fisheries. The SHP will cross non-commercial forested lands on the Lewis Wetzel Wildlife Management Area, which is managed by the West Virginia Department of Natural Resources.

5.0 COMPENSATION

Timber owners along the ACP and SHP pipeline routes will be fairly compensated for financial impacts associated with construction and operation of the Projects, including damages caused by construction and removal of timber from the permanent easement and temporary construction workspace. Atlantic and DETI will hire independent, third-party timber specialists to cruise, mark, and appraise timber. On the Federal and State/Commonwealth lands crossed by the Projects, timber cruises will be done according to the specifications of the land management agencies specifications. The timber specialists will evaluate forested properties to determine tree species, composition, and diameter and provide a current market value estimate for merchantable timber on the property. Landowners or land management agencies will be compensated for the loss of merchantable timber. Typically, Atlantic and DETI will purchase and take ownership of the timber, unless another agreement is reached with the landowner or land management agency.

Timber located on NFS lands will be paid for and disposed of through the use of Forest Service Timber Sale Contract forms, as determined by the FS's Timber Sale Contracting Officer. Atlantic will reimburse the FS based on that valuation by executing the proffered FS timber contract and paying for merchantable timber, prior to any cutting taking place on NFS lands.

Permanent Easement

On private lands, Atlantic and DETI will seek to obtain permanent easements from landowners along the pipeline routes. The easements will grant Atlantic and DETI the right to install, operate, and maintain the pipelines. The landowner will retain ownership of the property and receive a one-time payment as compensation for the permanent easement. Standard easement conditions will allow Atlantic and DETI to remove trees within the permanent easement because tree root systems could damage the pipeline or its coating and because trees

can hinder aerial inspection of the right-of-way.² The permanent easement will be maintained in an herbaceous state in accordance with the Plan and Procedures and applicable permit requirements.

Temporary Workspace

The temporary workspace is adjacent to the permanent easement. Timber owners will be compensated for the use of temporary workspace as well as the removal of merchantable timber from these areas. Trees will be allowed to grow in temporary workspace areas following installation of the pipeline.

Restoration

When construction is complete, the permanent easement and the temporary workspace areas will be restored in accordance with the Plan and Procedures, agency requirements, and landowner stipulations. During restoration, Atlantic and DETI will give special attention to current or planned road systems for future timbering activities. Following restoration, the temporary workspace will be allowed to revert to preconstruction uses. The permanent pipeline easement will be maintained in an herbaceous state.

6.0 TIMBER CRUISE AND EXTRACTION PLANS

Timber cruises, where required, will be conducted prior to construction to determine timber volumes, values, and species composition. Atlantic and DETI and their timber specialists will conduct cruises in accordance with industry standards on private lands and in accordance with land management agency specifications on public lands. For NFS lands, Atlantic will prepare Timber Extraction Plans in consultation with the FS after timber cruises are complete. The Timber Extraction Plans for FS lands will identify:

- the timber volume to be cleared;
- tree sizes;
- log grades;
- the dollar value of the timber;
- the logging system(s) to be used for each harvest segment;
- yarding methods and landing locations and decks;
- the volume of timber that will be yarded at each landing;
- the locations of landings and decks not previously identified;
- the roads that will be used to haul logs; and
- the haul distance for each harvest segment.

7.0 TIME OF YEAR RESTRICTIONS

Based on agency consultations to date, timing restrictions for tree clearing by State/Commonwealth are as follows:

² This does not apply to areas crossed by HDD. Tree clearing/vegetation maintenance will not be required within the permanent easement in areas crossed by HDD.

- West Virginia:
 - Migratory Birds: April 1 – August 31
 - Indiana Bats: April 1 to November 15
 - Northern Long Eared Bats: June 1 – July 31 within 150 feet of occupied maternity roost trees

- Virginia:
 - Migratory Birds: March 15 – August 31
 - Indiana Bats: April 1 – November 15 if the site is within 5 miles of known hibernacula; April 15 – September 15 if the site is not within 5 miles of known hibernacula
 - Northern Long Eared Bats: June 1 – July 31 within 150 feet of occupied maternity roost trees

- North Carolina:
 - Migratory Birds: April 1 – August 31
 - Indiana Bats: April 1 – November 15
 - Northern Long Eared Bats: June 1 – July 31 within 150 feet of occupied maternity roost trees

- Pennsylvania:
 - Migratory Birds: April 1 – August 31
 - Indiana Bats: April 1 – November 15
 - Northern Long Eared Bats: June 1 – July 31 within 150 feet of occupied maternity roost trees

Tree clearing is prohibited within 0.25 mile of known Northern Long Eared Bat hibernacula unless authorized by the U.S. Fish and Wildlife Service.

For tree felling activities occurring between January 1 and March 31, Environmental Inspectors will inspect the construction right-of-way for stick nests prior to clearing, and will call a qualified biologist to confirm nest activity if a nest is found, since many raptors begin nesting during this period. If any active raptor nests are identified, a 100-foot no-activity buffer will be implemented until the nest is no longer active (FWS, 2017).

8.0 TIMBER REMOVAL METHODS

Atlantic and DETI may employ three timber-clearing methods for the Projects: hand cutting; mechanical harvesting; and high line yarder logging. Helicopter logging is not anticipated, but could be used in steep mountainous areas. All four methods are described below.

8.1 Hand Cutting

Trees may be cut and felled by workers using chainsaws. Trees felled by chain saw will be collected and removed from the rights-of-way as described in Section 8.2 below.

8.2 Mechanical Harvesting

Wherever possible, mechanical harvesting will be employed. “Feller bunchers,” which are mechanized tree harvesters that can cut and gather several trees at once, will be used to cut trees on slopes with up to 50 percent grade. The feller bunchers will pile felled trees, allowing them to be transported (yarded) to larger collection areas (landings) by “skidders” or “forwarders,” which are other specialized machines for moving trees. Skidders drag logs, while forwarders carry logs clear of the ground. Log cranes and logging shovels will load trucks, feed grinders, handle stumps, place environmental mats, build bridges, and aid in the overall safe handling of materials and rigging on the landing and in the woods.

8.3 Yarder Logging

Cable yarding systems remove felled timber with the use of cables and blocks using a tower (the “yarder”) and an anchor line. Yarding systems may drag logs up or down hill, or in the case of skyline systems, lift the logs either partially or entirely above the ground. Skyline logging will be implemented in some areas because of steep terrain, limited access, and the alignment of the route. Alignment is critical in all cable systems. Where there are slight changes in alignment, skyline yarder logging can be effectively used.

Yarder work using a skyline system could be used in some places on the rights-of-way. This system requires a tailhold, which is the point of anchorage of the skyline. In many cases, a right-of-way alignment does not lend itself to be "in line" for a good tailhold. Loggers typically seek permission to place their tailhold outside the cutting area to create better alignment. Consequently, the tailhold is typically placed off the construction area and on an opposing slope. The tailhold could also be a tree that is rigged off the main cutting area. Atlantic and DETI will seek extra workspace authorization, if necessary, to locate tailholds beyond the construction rights-of-way.

Yarders will be used to assist excavators, skidders, stump grinders, and dozers to remove brush and stumps on the rights-of-way. With long cable capabilities and good rigging, many machines can be aided by a yarder using stump holds, blocks, and "dead men" to safely hold or lower machines on a steep hill.

A yoder is a combination yarder/loader that can accomplish many of the same tasks as a yarding system on a smaller scale. Yoders can fill the gap for log removal in areas where alignment problems pose major inefficiencies for big yarders. These smaller yarding machines can effectively remove logs in tight, steep areas, such as those encountered in parts of the Appalachian Range.

8.4 Helicopter Logging

Helicopter logging is typically employed in remote areas with rough terrain. Timber is generally felled by hand cutters with chain saws. One advantage of helicopter logging is the ability to safely remove timber on remote slopes where no roads exist. Flying logs to existing roadway systems creates less soil disturbance and requires fewer person-hours on the hills. Logs are flown to the nearest timber landing for truck transport to a mill.

During log transportation, helicopter flight paths typically will be along the pipeline rights-of-way. The helicopter can also provide ambulance service, if needed, as well as help with fire patrol and the delivery of equipment and crew to the field.

9.0 PLANNED TIMBER REMOVAL OPERATIONS

9.1 General Requirements

The Projects cross diverse landscapes, including forestlands of varied states of growth and maturity. Consequently, it is expected that timber of marketable and unmarketable quality will be cut as clearing is conducted along the pipeline rights-of-way and in other construction areas.

A detailed civil survey will be conducted, before timber removal activities begin, to delineate and flag the limits of approved work areas (i.e., the construction rights-of-way, temporary and additional temporary workspace (ATWS), aboveground facility sites and associated workspace, staging areas, and contractor yards). The locations of approved access roads will be flagged and marked with signs.

Riparian and wetland areas will be clearly labeled in the field. Other areas/sensitive features will be flagged prior to clearing (e.g., existing snags or large diameter trees on the edge of the construction rights-of-way to be saved or protected for green recruitment or habitat/shade trees). Applicable erosion and sediment control measures will be installed in accordance with the Plan and Procedures to prevent unnecessary disturbance during initial clearing. Additionally, temporary bridges will be installed at waterbody crossings along the rights-of-way in accordance with the Plan and Procedures.

Timber will be felled from construction areas using the method best suited to terrain, permit conditions, and topography. Felled timber that is merchantable will be moved to a loading area for trucking to nearby mills, unless approved by the landowner or land management agency to be left along the edge of the rights-of-way. Non-merchantable timber will be burned, chipped, hauled off-site, or salvaged for use during restoration activities. After it is cut, non-merchantable timber that will be salvaged for restoration will be flagged, quantified, labeled, and placed along the edge of the construction rights-of-way or at the nearest staging area.

Slash, chips, and debris will be managed in accordance with applicable Federal, State/Commonwealth, and local laws and regulations. To the extent consistent with such requirements, slash will be ground up and used as mulch on the rights-of-way, hauled to an approved disposal site, or burned.³ Stumps will be cut as close to the ground as possible and left in place, except over the trench line or where grading is necessary to create a safe and level work surface. The tops of the stumps will be ground flush to or below grade within the majority of the rights-of-way. All stumps excavated from the trench line that cannot be ground to mulch onsite will be placed along the edge of the construction rights-of-way or in temporary extra workspaces. Stumps will be hauled from the extra workspaces to an approved disposal site, used

³ Burning would be done in accordance with all laws and permitting requirements.

on the rights-of-way for restoration purposes, burned, or disposed of according to land managing agency or landowner specifications.

The timber removal Contractors will typically use conventional clearing methods where slopes are less than 30 percent using track and rubber-tired equipment. In areas where slopes are greater than 30 percent, a combination of "high line clearing" with yarders and yoders or winching via bulldozers and backhoes will typically be used. Where the rights-of-way do not allow this method to be implemented, logging by helicopter may be used as an alternative.

During construction, Atlantic's and DETI's Environmental Inspectors (EIs) ⁴ will monitor compliance with the environmental requirements and permit conditions for the Projects. The EIs will be responsible for monitoring compliance with this *Timber Removal Plan*.

9.2 Access Roads and Storage Areas

Approved access roads and ATWS for timber removal activities will be depicted on the ACP and SHP alignment sheets and flagged or otherwise marked in the field.

10.0 MITIGATION MEASURES

10.1 General Mitigation Measures

Atlantic and DETI will implement several additional measures to reduce or minimize impacts associated with timber removal activities, including the following:

- After timber removal, temporary erosion control devices will be installed, inspected, and maintained in accordance with the Plan and Procedures and/or *Winter Construction Plan* depending on season and soil conditions.
- Debris entering a waterbody as a result of felling and yarding of timber will be removed as soon as practical and will be placed outside the 100-year floodplain where feasible.
- Logs and slash will not be yarded across perennial streams unless fully suspended (i.e., logs will not be dragged across waterbodies). Logs and slash may be hauled by truck over temporary bridges across waterbodies.
- During logging/clearing operations, the direction of log or slash movement will be conducted to minimize sediment delivery to waterbodies.
- Logs firmly embedded in the bed or bank of waterbodies that are in place prior to felling and yarding of timber will not be disturbed unless they prevent fluming, damming, or trenching operations.

⁴ The role and responsibilities of an EI are defined in the Federal Energy Regulatory Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan*.

- Landings for clearing operations will not be located in wetlands or riparian areas, and, where feasible, logs yarded out of wetlands or riparian areas will be skidded with at least one end suspended from the ground to minimize soil disturbance.
- Timber cleared from the pipeline rights-of-way or other work areas that will be used for in-stream or upland wildlife habitat diversity structures will be stored on the edge of the rights-of-way or in temporary workspace areas for use during restoration.
- Prior to clearing operations, EIs will flag existing snags on the edges of the construction rights-of-way or ATWS, where feasible, to save from clearing. These snags will be saved as mitigation to benefit primary and secondary cavity nesting birds, mammals, reptiles, and amphibians.
- Other large diameter trees on the edge of the construction rights-of-way and ATWS areas will be flagged to save/protect as green recruitment or habitat/shade trees, where feasible.

Where ground skidding is used, the following measures will be implemented to minimize soil disturbance:

- Low ground weight (pressure) vehicles will be used, where feasible.
- The removal of soil duff layers will be avoided to maintain a cushion between the soil, logs, and logging equipment.
- Designed skid trails will be used to restrict detrimental soil disturbance (e.g., compaction and displacement) to a smaller area of the rights-of-way over the pipeline trenching area.

10.2 Measures for National Forest System Lands

On National Forest System lands, additional measures will be implemented in accordance with the COM Plan. If a general mitigation measure described above is more stringent than a COM Plan requirement, the more stringent measure will be applied. The COM Plan has been written to ensure conformance with the respective LRMPs for the MNF and GWNF, except where noted (certain standards and guidelines are under consideration for Project-specific LRMP amendments).