ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE

and

DOMINION TRANSMISSION, INC.
SUPPLY HEADER PROJECT

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February 24, 2017

APPENDIX B

Annotated Comment Matrix for the Second Draft of the Construction, Operations, and Maintenance

Pat Robblee

From: John Cassady
Sent: Tuesday, January 31, 2017 1:30 PM
To: cnthompson@fs.fed.us; jtimm@fs.fed.us; kkarriker@fs.fed.us; tahess@fs.fed.us; afaught@fs.fed.us; jenniferpadams@fs.fed.us
Cc: Richard B Gangle (Services - 6); Pat Robblee
Subject: Atlantic Coast Pipeline - COM Plan
Attachments: COM Plan Status Master for USFS 160126 (2).xlsx

Follow Up Flag: Follow up
Flag Status: Flagged

All: We inadvertently failed to attach the annotated USFS comment matrix referenced in Dominion's January 20, 2017 transmittal of the second draft of the COM Plan. It is attached herewith.

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U.S. Forest Service Comments on Atlantic Coast Pipeline Construction, Operations, and Maintenance Plan					
Comment No.	**Page No.**	**Section No.**	**Subject**	**U.S. Forest Service Comment**	**Status**
U.S. Forest Service Comments, November 10, 2016					
1	General		Process	The COM plan should contain a list of expected variances on NFS lands and should include pertinent information about each permit.	Need USFS Clarification/Discussion
2			Process	The USFS would have the right to make changes to the COM plan at anytime.	Need USFS Clarification/Discussion
3			Reporting	Quarterly reporting and meetings will be required.	
4				Provide in an appendix a list of all permits from other agencies that would be required during construction, operation, and maintenance of the project.	New Attachment N added.
5	Throughout		Access Restriction	The COM plan should address use of ATV/UTV which is strictly prohibited on NFS lands	Need USFS Clarification/Discussion
6		All	Training	Each Section of the COM Plan contains a sub-section on Training. The majority of these contain identical paragraphs about who will receive training and when. Provide additional qualitative information, preferably section/issue-specific, be provided – such as the basic curriculum (such as is provided in the Fire Suppression section), and whether these are formal or informal training sessions, who provides the training, and whether there are measures to assure that participants successfully learned and committed to memory at least the essential subject matter.	Need USFS Clarification/Discussion
7			Process	Where roles are described, include language indicating that the USFS's monitors would have stop-work authority on NFS lands and would approve that a goal or objective has been met.	Stop work authority already in document. Added "approve goals and objectives".
8			E&S	The USFS appreciates the inclusion of the winter construction plan, but would also require a construction plan that would consider the longer winters and increased precipitation that is common to the highlands of West Virginia and Virginia. Additionally, the COM plan should address extended rain events that could occur any season.	The Upland Erosion Control Plan and Winter Construction Plan are sufficiently robust and flexible to cover the longer winters and increased precipitation expected in the higher elevation areas.
9			Blasting	The information about forest-specific amendments contained in section 6 of the COM plan should be contained in the blasting plan.	The site-specific blasting plan will incorporate the LRMP requirements listed in Section 6.
10			Clearing	Please provide the timber removal information as a separate document to be appended to the COM plan.	Timber removal information will be provided as a separate Logging Plan at a later date.
11			Restoration	The COM plan should include a revegetation plan. The revegetation plan should include an appendix containing alignment sheets that identify, by alignment sheet, site-specific measures that would be implemented. Some examples include topsoil stockpiling, proposed seed mixes with application rates per acre, and where appropriate, native pollinator seed mixes need to be considered to address high priority species habitat.	See Section 10, Restoration and Rehabilitation Plan, including seeding specifications. Seed mixes, upon USFS approval, will be shown on alignment sheets, along with other restoration details.
12	ii	5.9	Correction	Misspelled word: should be EMERGENCY, not EMERGENY	revised ii, 5.9
13	viii	List of Acronyms	Correction	Add: "ANST Appalachian National Scenic Trail"	revised acronym list
14	viii, and Throughout All Documents	List of Acronyms…	Correction	Change: COE to USACE. Commonly recognized acronym.	revised acronym list
15	viii, and Throughout	List of Acronyms…	Correction	Add: "FR" Forest Road. Official USFS terminology, replaced "FSR" Forest System Road about 10-12 years ago.	revised acronym list

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16	viii, and Throughout	List of Acronyms….	Correction	Add: "FT" Forest Trail. Official USFS terminology, replaced "FST" Forest System Trail about 10-12 years ago.	revised acronym list
17	viii	List of Acronyms…	Correction	GWNF - George Washington National Forest. Add *FOOTNOTE: **George Washington National Forest refers to the northern portion of the current George Washington & Jefferson National Forests throughout this document. Originally two separate national forests, the GWNF and the Jefferson National Forest were administratively combined in 1995 and are administered as a single national forest unit.*	revised acronym list
18	viii	List of Acronyms…	Correction	Land and Resource Management Plan (not PLANS).	revised acronym list
19	viii, and Throughout Entire Document	List of Acronyms…	Correction	NFS – National Forest Service. This is an inaccurate, confusing, and non-standard acronym. Accepted practice in all USFS writing is to use lower-case "national forest system" to refer to lands of the USFS. Additionally, internally to USFS, "NFS" refers to National Forest System as one of three primary "branches" of the agency (along with Research and State & Private Forestry). For purposes of this document, I suggest using only : USFS – U.S. Forest Service (already listed) instead Throughout Entire Document, as in: "USFS lands". Other USFS folks may have different ideas, but to me, use of "NFS" to mean Forest Service lands in this context is very confusing.	revised acronym list
20	ix	List of Acronyms….	Correction	OHV – Off-Highway Vehicle. Capitalize, and add *FOOTNOTE: *OHV in this document refers generally to all types of motorized off-highway vehicles, including both street-legal and non-street legal full-size vehicles, motorcycles, ATVs, UTVs, etc.	revised acronym list, footnote added
21	ix and 5.3.1, and Throughout Document.	List of Acronyms…..	Correction	SAMACG – Southern Area Multi-Agency Coordination Group. Change to: SACG - Southern Area Coordinating Group. There is no SAMACG acronym. There are two very similar acronyms: SAMAC and SACG., for two similar groups. The correct one in this context is SACG. See: http://gacc.nifc.gov/sacc/sacg.php . NEED TO CONFIRM with ANDY PASCARELLA or TROY MORRIS.	revised acronym list
22	1, and Entire Document	Entire Document	Process	It is unclear whether this ACP-COM document ONLY applies to the portion of the ACP route and construction and operations activities that is on USFS lands of the MNF and GWNF, or if it is designed to applies to the ENTIRE Project (AP-1, AP-2, AP-3, AP-4, AP-5 and all associated Facilities. In various places in the document and attachments, it appears that the scope of the ACP-COM is limited to ONLY the USFS lands. In various other places in the document and attachments, it appears that the scope is the ENTIRE Project. These inconsistencies are confusing and should be clarified throughout..	revised entire document

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23	1, and Throughout Document.	Background, paragraph 6.	Correction	……..National Forest Service (NFS) lands…… See comment above about NFS/USFS. Change to: …..U.S. Forest Service (USFS) lands……OR Change to: national forest system lands administered by both the Monongahela National Forest (MNF) and the George Washington National Forest (GWNF) of the U.S. Forest Service (USFS)…….. Need to Globally Change in this Document – get rid of "NFS" meaning NATIONAL FOREST SERVICE.	revised background
24	1	Background, paragraph 6.	Correction	Existing Footnote #1. CHANGE to: 1 Since 1995, the GWNF in central western Virginia and the Jefferson National Forest in southwestern Virginia have been administratively combined as the single George Washington & Jefferson National Forests, managed by a single Forest Supervisor.	revised background
25	1	Background, paragraph 6.	Correction	Existing Footnote #2. CHANGE to: 2 Atlantic submitted a separate application to the National Park Service (NPS) for a right-of-way across NPS-administered Blue Ridge Parkway lands.	revised background
26	2	Figure 1.1-1, and Entire Document.	Correction	Need to refer to APPALACHIAN NATIONAL SCENIC TRAIL, not Appalachian Trail, on this map – in Legend and on map itself, and Throughout Entire Document. On this map, can be abbreviated as Appalachian NST. The USFS has requested in writing and also verbally in meetings, including a meeting on 8/2/16, for the Appalachian National Scenic Trail (ANST) to be referred to by its proper name, in order to acknowledge the fact that it is, in fact, a trail recognized as a national scenic trail. Going forward, please acknowledge the ANST by its full and proper name. It is incorrect to refer to it as the Appalachian Trail.	Revised Figure 1.1-1, revised text in entire document.
27	3	2.0	Restoration	Please develop and provide a revegetation plan for the next draft of the COM plan. The revegetation plan needs to identify, site by site, what seeding mix(es) and plantings will be applied (according to site characteristics such as elevation, pH, and hydrology), and plans for monitoring and maintenance of these plantings.	See comment 12.
28	3-32 Sec. 2	2.1.xx	HDD	There is no mention in this section about the HDD plan/contingency plan. The HDD plan and contingency plan need to be attached to the COM plan as an appendix. Section 2 should also have a brief HDD narrative section. Also, either the HDD narrative section, or the "construction schedule" section should discuss in greater detail the timing of spreads on NFS lands in relation to the HDD. Further, consistent with the USFS's previous requests, please identify in the COM plan proposed criteria to determine success of the HDD and contingency plan.	revised 2.0
29	3	1.1	Correction	Top paragraph. This paragraph is the first confusing reference to whether this COM Plan applies ONLY to USFS lands or to ALL LANDS along the ENTIRE length of the pipeline. See my earlier comment.	revised 1.1

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30	3	1.1	Correction	Top Paragraph on p. 3, Keep first 2 sentences. Replace rest of PP with: *The USFS must determine whether to amend the LRMP for the GWNF, and also whether to authorize granting a right-of-way/use permit to construct and operate the pipeline facilities on USFS lands. This Construction, Operation, and Maintenance (COM) Plan specifies the terms under which a right-of-way across USFS lands would be granted. The COM Plan is intended to be appended to the right-of way grant.*	revised 1.1
31	4	2.1.1.1	Correction	"Facilities on National Forest Service Lands" – Change to "Facilities on National Forest System Lands"	revised 2.1.1.1
32	4	2.1.1.1	Correction	Paragraph #1, Change "Glenwood-Pedlar" to "Glenwood & Pedlar"…….	revised 2.1.1.1
33	4	2.1.1.1	Correction	Paragraph #2. Pipeline markers should be installed at road and rail AND TRAIL crossings. Paragraph should also be reworded to clarify is any of the "Larger aerial markers" will be placed on USFS lands or not.	revised 2.1.1.1
34	4	2.1.1.1	Correction	Paragraph #3. ….ACP utilizes a number OF anode beds…… (ADD "OF")	revised 2.1.1.1
35	5		Access Road	Provide detailed haul plans to be available for review and an updated reference of all access roads impacted on GWNF and MNF.	The Haul Plan will be provided at a later date. Development of the Haul Plan is a multi-step process. Atlantic requests feedback from the USFS regarding its list of proposed roads, prior to developing the detailed information required for the Haul Plan.
36	5	2.1.1.1	Access Road	First full paragraph states "A small number of new roads will be required, principally short spurs to connect existing roads with the right-of-way. This general, blanket state is ambiguous and does not clarify whether ALL planned roads, especially "short spurs" are included in Table 2.1.1-1. Also, the last sentence should be changed to add: "purposes, including EXISTING ROADS, new roads and roads that will require improvements…….	revised 2.1.1.1
37	5	2.1.1.2	Topsoil	The first paragraph states that the construction ROW will be 125 feet. However, the USFS would require topsoil segregation to maintain soil productivity on the entire length of the proposed pipeline route on NFS lands. The USFS had noted this requirement many times. Elsewhere in the document, in 8.3.1, ACP states that in areas of topsoil segregation, and additional 25' is needed for construction ROW – total of 150' on all NFS lands. This needs to be clarified here, in Table 2.1.1-2, and in section 8.3.1.	Need USFS Clarification/Discussion
38	5	2.1.1.2 and Throughout Entire Document	Workspace	Based on the above comment which means an additional 25' width of construction corridor needed (150' instead of 125', as stated), then ACP must show that the additional 25' width has been surveyed for biological and cultural resources. the project proposal should be updated via filing with FERC to inform stakeholders and FERC of the need for the 125' construction corridor. New alignment sheets showing this additional width of construction corridor/ATWS should be developed and distributed for review.	revised 2.1.1.2 and throughout entire document

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Comment No.	**Page No.**	**Section No.**	**Subject**	**U.S. Forest Service Comment**	**Status**
39	5	2.1.1.2	Workspace	Clarify whether any ATWS would be planned on any USFS lands. This is related to the question of whether this COM Plan ONLY applies to USFS lands or applies to the ENTIRE LENGTH of the pipeline.	revised 2.1.1.2
40	5	2.1.1.2.	Workspace	The document states the temporary construction is "nominal-125 feet" wide when the max width should be 75 feet (FERC upland guide IV.A.2.)	Need USFS Clarification/Discussion
41	5	2.1.1.2	Workspace	"Typical right-of-way configurations are provided in Attachment A." Typical right-of-way configurations provided in Attachment A are inadequate for a COM Plan on NFS lands. The first configuration ("Atlantic Coast Pipeline AP-1 (Federal Lands Only) Typical Construction Right-of-Way Non-Agricultural Areas") is a profile (cross-section) with dimensions (feet) but is for flat ground where the only excavation is for the trench. The second configuration ("Atlantic Coast Pipeline and Supply Header Projects Cut and Fill Construction") is a profile (cross-section) for side hill construction but with unknown dimensions ("Additional ROW As Required") and vertical and/or horizontal distortion of configuration. Neither of these two configurations is representative of most of the ROW construction on NFS lands. "The alignment sheets (Attachment B) provide exact dimensions of the proposed construction right-of-way widths on NFS lands." The configurations in Attachment A discuss above are not representative of most of the ROW construction on NFS lands. Also, Atlantic Coast Pipeline and Supply Header Projects Cut and Fill Construction configuration is a completely inadequate configuration to determine if proposed construction right-of-way widths in Attachment B are adequate widths (see comments on Attachment A for detailed comments). Because the COM Plan does not contain profiles (cross-sections) with dimensions (feet) based on ground surveys for configurations representative of the different terrain on the NFS lands, we have concerns about the adequacy of the proposed construction right-of-way widths in some terrain, such as steep slopes and narrow ridgetops. Profiles (cross-sections) with dimensions (feet) based on ground survey for each type of right-of-way configurations on NFS lands are needed 1) to determine land requirements, 2) to assess the scope and magnitude of the slope modifications and surface and subsurface disturbance on NFS lands, and 3) to assess the potential for project-induced landslides (cut slope failures and fill slope failures). For each Alignment Sheet in Attachment B, provide a set of profiles (cross-sections perpendicular to and parallel to the centerline) with dimensions (feet) based on ground survey for each type of right-of-way configuration on the Alignment Sheet, including if applicable, such	Will be provided at a later date.

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42	5	2.1.1.2	Workspace	"Additional temporary workspace (ATWS) is proposed at certain locations, such as road crossings, and where additional spoil storage, log landings or equipment staging is needed." This statement is inadequate in describing the scope and magnitude of additional temporary workspace (ATWS) on NFS lands. Section 8.3.2 states, "ATWS measuring 50 by 150 feet will typically be required on both sides of the corridor and both sides of the crossing at wetlands, waterbodies measuring greater than 10 feet in width, two lane roads, and railroads. ATWS measuring 25 by 100 feet will typically be required on both sides of the corridor and both sides of the crossing at waterbodies measuring less than 10 feet in width and single lane roads." Where ATWS adds 50 feet on each side of the 125-feet-wide temporary construction ROW, the results is a 225-feet-wide temporary construction ROW. Where ATWS adds 25 feet on each side of the 125-feet-wide temporary construction ROW, the results is a 175-feet-wide temporary construction ROW. The ATWSs 40 to 80% increase in width is a major increase in temporary construction. More than 80 ATWS are identified so far on the GWNF, and about 10 to 20 ATWS on the MNF. 80 ATWS would mean about 40 sections where the temporary construction ROW would be 175-feet- wide or 225-feet-wide rather than 125-feet-wide. Equally important is that the ATWS for stream crossings in the mountains narrow valleys would be excavated into steep slopes at the base of or on the lower slopes of the mountainside. Stream down cutting and incision in narrow mountain valleys makes these lower slopes near streams susceptible to stream or storm-induced landslides as well as excavation- induced slope failures, such as by a road or pipeline construction. 1. For each ATWS pair (on both side of the pipeline corridor), provide a profile (cross-section) perpendicular to the centerline with dimensions (feet) based on ground survey showing the ATWS pair and the 125-feet-wide temporary construction ROW. 2. For each ATWS pair (on both side of the pipeline corridor), provide three profiles (cross-sections) parallel to the centerline with dimensions (feet) based on ground survey showing the ATWS pair and the 125-feet-wide temporary	Will be provided at a later date.
43	5	2.1.1.2 Land Requirements		*"The ACP will mostly use existing USFS roads to access the pipeline right-of-way, with the* ***exception of a three new roads that would connect existing roads with the right-of-way****. Section 2.1.1.4 provides more details about access roads proposed to construct and operate the pipeline. [Note – Atlantic is in the* ***process of preparing a detailed Haul Plan, which may identify additional Forest Service roads that could be used. These are expected to be identified by the end of October****.]"* Access roads will require an Order 1 Soil Survey. This information will be used to inform design of these roads so that they can support the anticipated level of use. Sediment and Erosion Control plans will need to be developed for each road. Culverts may need upgrades or replaced if current conditions do not meet the design standards. Outlets of culverts will need armored. Cutbacks will need to be seeded or mulched.	Need USFS Clarification/Discussion

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44	5 and 13	2.1.1.2 and 2.1.1.4	Access Road	Inconsistency: Part 2.1.1.2 states three new roads are needed. Part 2.1.1.4 states four new roads are needed. The list of these new roads (not just the total mileage) should be provided in Table 2.1.1-2.	revised 2.1.1.2 – Table 2.1.1- 5
45	6	Table 2.1. 1-1	Access Road	States existing unnamed road. If a "road" is not named or numbered as a system road on NFS lands, the access is not actually a road. This access would need to be authorized as ancillary to the permit.	Need USFS Clarification/Discussion
46	6	Table 2.1.1-1	Access Road	In this table, 4 roads are listed as GWNF unnumbered roads, and 3 of those are called "existing" and only 1 is called "new." If roads are unnumbered, they are not official USFS Forest Roads, and any and all use of them is "new construction." There is one road labeled "NA" listed for new construction – a better description is needed.	revised 2.1.1.2 – Table 2.1.1- 5
47	6	Table 2.1.1-1	Access Road	Add a column to the table that identifies whether roads are to be used on a temporary (construction) or permanent (operation & maintenance) basis. Add another column for the width of the right-of-way required for the access roads and a column to identify if the access roads have been surveyed for cultural and biological resources.	revised 2.1.1.2 – Table 2.1.1- 5
48	6	2.1.1.2 – Table 2.1.1- 5	Access Road	This table lists a GWNF unnumbered road between Hwy 84 and the right-of-way. USFS system roads have numbers. Verify whether this road is on or off the GWNF. If it's on the GWNF, use of this road for access may appropriately belong under Section 2.1.1.4 than in this section and table.	revised 2.1.1.2 – Table 2.1.1- 5
49	6	2.1.1.2 – Table 2.1.1- 5	Access Road	This table lists an unnumbered road between GWNF Road 614 and the right-of-way. There is no FS Road 614 in GIS or MVUM, but there is a State Route 614 in this vicinity, so there may be an error with this description. If there is an unnumbered road on NFS lands to be used for access, it might belong in Section 2.1.1.4 rather than in this section and table.	revised 2.1.1.2 – Table 2.1.1- 5
50	6	2.1.1.2 – Table 2.1.1- 5	Access Road	This table lists a GWNF unnumbered road between FSR 449 and the right-of-way. If it's on the GWNF and not a system road, it may belong under Section 2.1.1.4 rather than in this section and table.	revised 2.1.1.2 – Table 2.1.1- 5
51	6	2.1.3	Clearing	During the pre-construction phase, provide for the identification/flagging of trees and shrubs to be retained to assist with feathering of edges to reduce impacts to scenery.	Added new Section 20
52	7	Table 2.1.1-2	Workspace	Confirm the Acreage of Temporary Workspace based on the fact that topsoil segregation would be required on both the MNF and GWNF.	Need USFS Clarification/Discussion
53	7	Table 2.1.1-2 Summary of National Forest Lands Affected by the Atlantic Coast Pipeline Project (acres)	Workspace	How are acreages determined for "*Lands affected by the Atlantic Coast Pipeline Project*"? Does this number refer to direct effects or direct and indirect effects such as watershed effects?	Added clarifications to Table 2.2.1-1.

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54	7	2.1.1.3	Schedule	Please update the COM plan to include the most recent construction schedule, noting a more recent schedule was filed with FERC on September 21, 2016. Please identify which construction spread contains the proposed crossing under the ANST and include anticipated start and end dates of construction for the HDD. Please identify in the COM plan proposed criteria to determine success and failure of the HDD, and clearly explain how and when the contingency plan would be implemented relative to the failure of the HDD.	Added new schedule, revised spread configuration/schedule figure
55	7	2.1.1.3	Correction	Paragraphs 4 and 5 both refer to Spread 4A – calling it either 4 miles and 4.2 miles. Please clarify the mileage.	Revised 2.1.1.3
56	7	2.1.1.3	Correction	Paragraph 5 – one example of referring to Appalachian Trail. Change all references to Appalachian National Scenic Trail.	Revised 2.1.1.3
57	9		TOY	Timber removal on MNF and western GWNF would begin Nov. 2017 and continue into March 2018. This includes a time of year that is normally outside the normal operating season for FS timber sale contracts. Please continue to consult with the FS regarding the timing of timber removal to ensure consistency with requirements for wildlife.	Revised 2.1.1.3
58	9	2.1.1.3	Correction	Sensitive fisheries **and other aquatic organisms**	Revised 2.1.1.3
59	10	2.1.1.3	Waterbody	Table 2.1.1-4 lists the 2 streams to be crossed on MNF (UNT to Shock Run and UNT to Sugar Camp Run) as "Warm Water Fisheries." These are cold water fisheries. Sugar Camp Run has portions designated as "Trout Streams" on the GIS layer.	Revised 2.1.1.3
60	11	Table 2.1.1-5	Waterbody	Specify the meaning of UNT – (Unnamed Tributary) – this is done as a footnote in Table 2.1.1-4, but should be done again.	Revised Table 2.1.1-5
61	11-12	Table 2.1.1-5	Waterbody	Update Feature ID – reflect the stream crossing ID or footnote what the shia/nhd/sauc #'s specifically refer to. But the Title of the Table speaks to water body crossings, so should likely reference the survey ID that are specific to the hydrotechnical analysis/stream crossings surveys, rather than a stream habitat/ macroinvertebrate/other survey ID.	Revised Table 2.1.1-5. Added footnote.
62	11-12	Table 2.1.1-5	Waterbody	Approximate Crossing Width appears to relate to stream channel width. According to GeoHazard Report 2, many stream crossings were recommended to have full valley bottom/floodplain crossings construction to mitigate for lateral scour. Update to reflect accurate crossing width.	Need USFS Clarification/Discussion
63	11-12	Table 2.1.1-5	Waterbody	Update Waterbody Name – MP 85.0 UNT to Townsend Draft – NOT Warwick Run	Revised Table 2.1.1-5
64	11-12	Table 2.1.1-5	Waterbody	Update Waterbody Name – MP 85.1 UNT to Townsend Draft – NOT Warwick Run	Revised Table 2.1.1-5
65	11-12	Table 2.1.1-5	Waterbody	Update Flow Regime – MP 94.1 Laurel Run is perennial	Revised Table 2.1.1-5
66	11-12	Table 2.1.1-5	Waterbody	Update MP 115.8 Barn Lick Branch. This tributary IS crossed by centerline. Update crossing width and construction method, etc. See GeoHazard Report 2 and Hydrotechnical Analysis for specific information about this crossing and construction recommendations.	Revised Table 2.1.1-5
67	11-12	Table 2.1.1-5	Waterbody	Update Flow Regime – MP 120.2 UNT to White Oak Draft is perennial	Revised Table 2.1.1-5

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68	11-12	Table 2.1.1-5	Waterbody	Update MP120.6 UNT to White Oak Draft. This tributary IS crossed by centerline. Update crossing width and construction method, etc. See GeoHazard Report 2 and Hydrotechnical Analysis for specific information about this crossing and construction recommendations.	Revised Table 2.1.1-5
69	13		Access Road	USFS maintains the right to review proposed access road design details. Design details must reference road widths (including ditch dimensions), longitudinal slopes, mass-haul diagrams, cross sections, cut and fill slope dimensions, subgrade and surfacing types.	Most of the roads proposed to be utilized for construction of the Project are existing roads, which do not appear to require detailed road design, although any improvements will be done to USFS standards. Atlantic intends to include design details for new roads in its Haul Plan.
70	13	2.1.1.4 Access	Access Road	"*New Access Road 05-001-C009.AR2 would consist of about 100 feet of new road on the MNF between Forest Service Road 1026 (Buzzard Ridge Road) and the pipeline right-of-way near MP 71.1."* An Order 1 Soil Survey needs to be done on all newly constructed access roads. Access roads will require an Order 1 Soil Survey. This information will be used to inform design of these roads so that they can support the anticipated level of use. Sediment and Erosion Control plans will need to be developed for each road. Culverts may need upgrades or replaced if current conditions do not meet the design standards. Outlets of culverts will need armored. Cutbanks will need to be seeded or mulched.	Need USFS Clarification/Discussion
71	13	2.1.1.4	Access Road	Paragraph 1 – all 4 new roads must be considered new construction as they are not official FRs on the USFS transportation system.	Revised 2.1.1.4
72	13	2.1.1.4 Access Roads	Access Road	"*Improvements to existing roads, as well as new road construction, will be done according to USFS specifications* ." All roads will need to meet the requirements of the MNF during all seasons. This means that upgrading roads to meet specific requirements and standards during all seasons will be required. The design is based on engineering standards that use information such as the ASHTO and UNIFIED values for soils to be used as the base material as well the anticipated level of use (intensity, duration, and type/weight of vehicles). USFS is anticipating that the access roads will be wider than what already exists and what is normally designed for timber operations. All design standards and upgrades will be used to accommodate these wider roads.	Revised 2.1.1.4. Added suggested language.
73	13	2.1.1.4	Access Road	Access Road 36-014.AR3 is NOT an official jeep trail – there is no such official category.	Revised 2.1.1.4. Road removed from list.
74	13	2.1.1.4		Proposed New access road 36-014.AR3 running along Laurel Run for 1.2 miles with multiple crossings would NOT be consistent with Forest Plan direction, Forest Plan standards, and Forest Service road location guidelines. Per ACP's October 11, 2016 filing, ACP would eliminate this road from its proposal.	Revised 2.1.1.4. Road removed from list.
75	13	2.1.1.4 and Throughout Document	Access Road	Access Road and all referenced roads need to be referenced by their federal, state, local or USFS road number, in addition to name. Proper identification of roads is required to authorize use.	Revised 2.1.1.4 and throughout document. Road names identified via GIS maps and internet research.

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76	13	2.1.1.4	Access Road	"…four new access roads are proposed. ...Two of the four…would require substantial re-construction." Identify if these new access roads been surveyed for biological and cultural resources and in what filings with FERC the results were provided. Project effects associated with access roads must be disclosed in the EIS.	Added column to Table 2.1.1-1.
77	13	2.1.1.5	Steep Slopes	Describe the pipeline construction procedures for construction on steep slopes perpendicular to contour using winch construction.	Revised 2.1.9.6, 6.9 and 8.7.2.1 regarding steep slope construction.
78	15	2.1.2	Survey	Surveyors should mark any USFS property corners and reference any that will be disturbed so that they can be re- established by the contractor after construction to prevent the loss of those property corners. Any marked boundary lines that are disturbed must be remarked as well. Please consult with the USFS for specific instructions and requirements for re- establishing corners and boundary lines.	Revised 2.1.2 and 2.1.8.
79	15	2.1.3	Invasives	Ensure there are NNIS control measures built into soil segregation techniques in NNIS plan.	In 11.4.2.2
80	15	2.1.3.	Clearing	States stumps will be burned, chipped or hauled off. Clarify if a State, County, and NFS burn plan would be required.	Revised 2.1.3.
81	15	2.1.3 Clearing and Grading	Clearing	*"Cleared vegetation and stumps will either be burned, chipped (except in wetlands), or hauled offsite to a commercial disposal facility or for beneficial reuse, as specified in the Restoration and Rehabilitation Plan or otherwise directed by the AO."* There has yet to be a decision on how timber will be removed, clearing vegetation and stumps. Burning requires standards that need to be followed within the Forest Plan in *Management Direction for Fire Management* . Please continue consultation with the Forest Service to ensure that the proposal is solidified before the project would be implemented.	Revised 2.1.3.
82	15	2.1.3 Clearing and Grading	Topsoil	"*Graded topsoil will be segregated in accordance with the Upland Erosion Control Plan. Typically, topsoil will be segregated from subsoil in non-saturated wetlands, and in other areas as specified in the Upland Erosion Control Plan.* " According to MNF Forest Plan Standard SW15, topsoil should be retained to improve the soil medium for plant growth on areas to be disturbed by construction. On all areas of NFS land, topsoil must be segregated during construction and re- distributed across the disturbed area during site restoration.	Need USFS Clarification/Discussion
83	15	2.1.3 Clearing and Grading	Topsoil	"*In accordance with the Upland Erosion Control Plan, in areas where topsoil segregation is required Atlantic will segregate at least 12 inches of topsoil in deep soils (more than 12 inches of topsoil) and the entire topsoil layer in shallow soils (less than 12 inches of topsoil)* ." Atlantic must salvage all topsoil present. Topsoil may exceed 12 inches in certain areas. These areas should be known based on the Order 1 Soil Survey data. In areas where there are transitional horizons (i.e. AB, BA), those transitional horizons also need to be salvaged for plant regrowth.	Need USFS Clarification/Discussion

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84	15	2.1.3	Clearing	Paragraph 3 refers to burning of slash, then paragraph 4 says no burning of wood. This is confusing; please clarify.	This section does not indicate "no burning of wood". No change necessary.
85	15	2.1.3 Clearing and Grading	Topsoil	"*If the ground is relatively flat and does not require topsoil segregation or grading, the existing vegetative mat will be peeled and removed similar to topsoil and stockpiled along the right-of-way for use in restoration."* **All topsoil must be salvaged**. "Relatively flat ground" will still need topsoil salvaged and segregated.	Deleted cited text in 2.1.3.
86	15	2.1.3 Clearing and Grading	E&S	"*All materials used for erosion and sediment control (e.g., hay bales or straw mulch) will be certified as weed free."* Hay may not be used on NFS land. This is due to the possibility of unintentionally introducing nonnative species. Paragraph 6 requires all materials to be certified weed-free. Identify what weed-free material program would be used in West Virginia and Virginia, so it will be clear how this would be achieved. Define "weed free." This material should also be free of nonnative and invasive species.	Added text in Sections 2.1.3 and 11.4.2.2. Need USFS clarification re "weed-free program"
87	15	2.1.3	Survey	This section describes the survey and staking of the pipeline limits of the right-of-way in preparation for removal of vegetation prior to construction. This work includes marking wetland boundaries and other environmentally sensitive areas. Section 10.3.1.9 describes the post-construction planting of tree seedlings and small shrubs. It seems prudent to include during the staking process the marking of some shrubs and trees along the edge of the right-of-way that would be beneficial to keep for wildlife and/or visuals instead of leaving those specific decisions up to the individuals who will be cutting/clearing the vegetation.	See new Section 20. Such areas would be identified and mapped by Atlantic on drawings, and the trees to be left standing would be flagged in the field and reviewed with the USFS prior to construction.
88	16	2.1.4 Trenching	Topsoil	"*In areas where topsoil segregation is conducted, subsoil from trench excavations will be placed adjacent to the topsoil in a separate pile to allow for proper restoration of the soil during backfilling and restoration* ." Topsoil must be segregated along all areas of NFS lands on both the MNF and GWNF.	Need USFS Clarification/Discussion
89	17	2.1.5 Pipe Stringing, Bending, and Welding	Safety	"*With the exception of soils classified as hazardous material, all native soils can be used as backfill* ." Soil chemical and physical properties should be determined to assess whether the native fill is suitable. Several soil types in the ROW are expansive and contractive due to clay mineralogy. Several soil types are also very acid and may cause weathering and produce a highly corrosive environment. See soil chemistry data and texture analyses.	Revised 2.1.5.
90	17	2.1.5	Correction	Flocking Ring is jargon, not commonly known or researchable – rename or redefine or explain to clarify if this is a Semi- Automatic Powder Ring or something else..	Revised 2.1.5.
91	17	2.1.6	Correction	Rock-Shield – jargon, not commonly known or researchable – rename or redefine or explain to clarify if this a type of "pipe-protection" padding or something else.	Revised 2.1.6.
92	18	2.1.7	Correction	Pigs will be continuously RUN, not RAN, through the pipeline.	Revised 2.1.7.

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93	18	2.1.8	Survey	Markers showing the location of the pipeline should be required to be installed on both sides of all USFS system trails (Forest Trails) crossed by the pipeline, in addition to the types of crossings listed.	Revised 2.1.8.
94	18	2.1.8	Survey	Specify whether Aerial markers will be placed on NFS lands or not.	Revised 2.1.8.
95	18	2.1.8 Clean-up and Restoration	Restoration	"*Work areas will be stabilized and seeded as soon as possible after final grading, weather and soil conditions permitting, subject to the recommended seeding dates for the seed mixes used to revegetate different areas along the pipelines."* If seasonality or timing prevent the use of vegetative erosion control measures, physical measures such as matting, fences, etc. will be used in the short term and inspected and maintained regularly (more than once a week) to ensure proper function until seeding can occur and become effective.	Revised 2.1.8.
96	18	2.1.8	Restoration	This pertains to clean-up and restoration post-construction, and it states that work areas will be stabilized with recommended seed mixes that will, among other benefits, improve the appearance. Please include other measures to be taken during this restoration phase to reduce the impacts to scenery. Please consult with the USFS regarding this matter.	Added new Section 20.
97	19	2.1.8.1	HDD	This appears to be the appropriate section to include a comprehensive HDD narrative. Please add this narrative.	Added narrative in 2.1.9
98	19	2.1.9	HDD	This section on WATERBODY CROSSINGS gives a statement that HDD will be used to cross ANST and NPS-BLRI. This is one of only a couple of brief references to this action and there are no detailed drawings or description of the primary HDD plan specifics nor the contingency Direct Pipe Installation (DPI) proposal, nor any discussion of the decision process for determining when the primary HDD may be determined to not be feasible and a switch to the contingency plan initiated. The USFS has requested this information on numerous occasions. Detailed Attachment or Appendix detailing the HDD and DPI plans is essential. Thank you for identifying the Appalachian National Scenic Trail properly in paragraph #1. Please make that consistent throughout the document.	Added narrative in 2.1.9. HDD plan & profile drawings and contingency direct pipe plan added as Attachments O and P, respectively.
99	19	2.1.9	Waterbody	This states that construction equipment will be required to use the bridges, except that the clearing and bridge installation crews will be allowed one pass through waterbodies before bridges are installed. Please clarify if this requires state approval and please consult with the USFS to determine if this is consistent with Forest Plan standards and/or forest policies.	Revised 2.1.9
100	19	2.1.9	Waterbody	Paragraph 3. Are temporary bridges proposed on USFS lands ? If so, much more detail is required. Please consult with the USFS regarding this proposal.	Need USFS Clarification/Discussion

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101	20	2.1.9 Waterbody Crossings	Workspace	"*ATWS will be required on both sides of waterbody crossings to stage construction equipment, fabricate the pipeline, and store construction materials. Except as authorized by the FERC and the AO, the ATWS will be located at least 100 feet away from the water's edge at each waterbody on NFS lands* ." All ATWS must be subject to the same environmental surveys and clearances as the rest of the ROW. All ATWS must be approved by the Forest Service on a site-specific basis.	Noted (document seems clear). No change made.
102	20	2.1.9	Workspace	COM plan states "*ATWS will be required on both sides of waterbody crossings to stage construction equipment, fabricate the pipeline, and store construction materials. Except as authorized by the FERC and the AO, the ATWS will be located at least 100 feet away from the water's edge at each waterbody on NFS lands* ." Please clarify that the AO (Authorized Officer) is the appropriate Forest Service line officer or his/her duly authorized designee. Site-specific Forest Service consultation/approval should occur for all ATWS.	ATWS is included as part of the proposed action. No change made.
103	20	2.1.9 Waterbody Crossings	E&S	"*Sediment barriers will be installed at the top of the bank if no herbaceous strip exists* ." Even if an herbaceous strip is in existence, there should be reinforcement erosion control measures to aid herbaceous strips in preventing erosion. According to the West Virginia Erosion and Sediment Control Best Management Practice Manual, the minimum vegetative buffer width shall be 100 feet. For slopes greater than 10 percent, the minimum distance is 250 feet. Smaller buffers may be used in conjunction with other BMPs. However, the distance will be reviewed and approved by the USFS on a site- specific basis.	Need USFS Clarification/Discussion
104	20	2.1.9 Waterbody Crossings	Waterbody	"*However, there will be certain instances where equipment refueling and lubricating may be necessary in or near waterbodies."* Equipment refueling and lubricating shall not take place in waterbodies. Equipment refueling and lubricating near waterbodies may only occur when equipment cannot be moved (e.g., pumps that are necessary for maintaining diverted stream flows during construction of stream crossings).	Revised 2.1.9.
105	20	2.1.9	Waterbody	Equipment refueling within or near waterbodies. The only instance where refueling within or near a waterbody would be for the pumps used to create dry workspace in the stream. According to Attachment A, <u>these pumps will be enclosed by straw bales with an impermeable liner</u>. This is the only instance where refueling <u>near a</u> waterbody would occur. Refueling <u>in a</u> waterbody should never occur on NFS lands.	Revised 2.1.9.
106	20	2.1.9	Waterbody	Stream bank stabilization: Any non-biodegradable fabric used for bank stabilization should only be temporary and should be removed when vegetation becomes established. Riprap should not be necessary or used except in very unusual conditions and USFS consultation/approval must be obtained in these circumstances.	Revised 2.1.9.

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107	20	2.1.9 Waterbody Crossings	Waterbody	"*Stabilization measures could include seeding, plantings, installation of erosion control blankets, or installation of riprap materials, as appropriate."* ACP is required to work with the USFS to ensure restoration of stream banks and riparian areas is consistent with USFS standards and pre-construction conditions. Natural stream design techniques are the standard for maintaining habitat and addressing water quality issues associated with disturbed stream banks.	Revised 2.1.9.
108	21	2.1.9.1 Flume Method Dry Crossing	Waterbody	*"As noted above, the duration of in-stream construction activities (excluding blasting, if required) will be limited to 24 hours across minor waterbodies and 48 hours across intermediate waterbodies* ." ACP should provide a list of waterbodies and identify each waterbody as minor or intermediate, and submit the list to the USFS for review and approval.	Added column to Table 2.1.1.5.
109	21	2.1.9.1 Flume Method Dry Crossing	E&S	"*Such devices include geotextile filter bags or straw bale (weed-free) structures. Alternatively, the water will be discharged into well-vegetated areas away from the edge of the waterbody, to prevent heavily silt-laden water from entering the waterbody."* Describe how will water be transferred to "well-vegetated" area What qualifies and area to be "well-vegetated?"	Revised 2.1.9.
110	21	2.1.9.1	E&S	*COM plan states "... Alternatively, the water will be discharged into well-vegetated areas away from the edge of the waterbody, to prevent heavily silt-laden water from entering the waterbody."* Water should be released in a manner and at a rate such that it does not cause erosion.	Revised 2.1.9.
111	21	2.1.9.1 Flume Method Dry Crossing	Waterbody	"*Spoil excavated from the waterbody trench will be placed and stored on the bank above the high water mark and a minimum of 10 feet from the edge of the waterbody* ." Temporary erosion control devices around excavated spoil material should be in place during this time.	Revised 2.1.9.
112	21	2.1.9.1 Flume Method Dry Crossing	Waterbody	"*The banks will be stabilized before removing the dams and flume pipes and returning flow to the waterbody channel.* " Describe how the banks would be stabilized before removing the dams and flume pipes. Designs and methods must be submitted for review and approval by USFS staff.	Revised 2.1.9. Need further USFS clarification/discussion.
113	24	2.1.9.4	Correction	Change the title of this section to Road and Trail Crossings.	Revised 2.1.9.
114	24	2.1.9.4	Correction	The Traffic and Transportation Plan should include national forest system trails (Forest Trails) on NFS lands, in addition to national forest system roads (Forest Roads). Paragraph 3 refers to NFS trails. See earlier comment and globally replace "NFS." Correct reference is "national forest system trails." Paragraph 3 refers to the Public Access Plan. Refer to proper section/chapter (17).	Revised 2.1.9. Forest trails are discussed in Section 17, Public Access Plan.

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115	24	2.1.9.4	Roads	This states the different construction methods to cross roads based on whether they are paved or not, and the width. Table 7.5-1 on page 71 indicates that all of the NFS road crossings will be constructed using the open cut method for unpaved roads. If there are no paved USFS roads to cross, the only method that needs to be described for road crossings in section 2.1.9.4 is the open cut method.	Removed road bore text, 2.1.9.
116	24	2.1.9.5	Steep Slopes	The section on steep terrain seems to be lacking specific information. The document references attachment B as SAIPR, but attachment B is alignment sheets. The Slip Avoidance, Identification, Prevention, and Remediation – Plans and Procedures (SAIPR) is found in Attachment C, not in Attachment B, as stated on page 24.	Revised 2.1.9.
117	24	2.1.9.5	Steep Slopes	The Slip Avoidance, Identification, Prevention, and Remediation - Policy and Procedure (SAIPR) of August 2015 (Attachment C) discusses and applies to West Virginia. See the comments on Attachment C and then provide an updated or supplemental Slip Avoidance, Identification, Prevention, and Remediation plan for the NFS lands in Virginia and West Virginia.	See revised Attachment C.
118	24-25	2.1.9.5 Steep Terrain	Steep Slopes	**"2.1.9.5 Steep Terrain"** There are no steep slope procedures identified within this entire section. Please provide a detailed description of how ACP plans to deal with pipeline construction on slopes greater than 40%. This detailed description should include all methods proposed during all stages of pipeline construction and also all equipment planned to be used on steep slopes.	Revised 2.1.9.6, 6.9 and 8.7.2.1. Refer to revised Attachment C as well. Atlantic also intends to submit to the USFS supplemental drawings associated with steep slope design and will include these drawings in Attachment A.
119	25	2.1.9.6 Karst Areas	Karst	According to the Karst Monitoring Report, 31% of the area could not be field-checked due to a lack of landowner permission. Therefore, more karst features may exist that were not identified. Some of these areas may be adjacent to USFS lands (potentially with subsurface connections). Some caves with openings located greater than a mile away may have passages extending under the corridor that would not have been detected by field studies. An option would be to use technology such as ground-penetrating radar within the ROW and preferably a buffer.	Need USFS Clarification/Discussion
120	25	2.1.9.7 Blasting	Blasting	"*It is anticipated that blasting will be required in areas where hard shallow bedrock or boulders are encountered that cannot be removed by conventional excavation with a backhoe trencher, by ripping with a bulldozer followed by backhoe excavation, or by hammering with a backhoe-attached device followed by backhoe excavation."* The blasting plan should explain how blasting would be accomplished on steep slopes. And what procedures would be used on slopes prone to landslides.	Added new Section 6.9
121	26	2.1.9.8	Inspection	The EI should have the knowledge to assess potential volumes and velocities of snow melt (considering temperature variations and rain amounts) to assess how to stock-pile snow and create gaps in the event of a significant snow accumulation during construction.	Revised 2.1.9

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122	26	2.1.9.8	E&S	This states that "Atlantic does not expect the construction activities to occur in frozen ground conditions, but…." Spreads 4a and 5 on the GWNF have a construction schedule of June 2017 to 4Q2018 (Table 2.1.1-3), which includes a winter construction schedule when the ground may, and is likely, to be frozen at times. Please clarify if construction would occur during frozen ground conditions based on the current construction schedule.	Revised 2.1.9
123	27	2.1.9.10	Security	The safety of ACP employees and security of the project site is addressed in this section. This section should also include measures that are mutually beneficial for project security as well as for public safety and safety of USFS employees. Specifically, there should be markings or signs along the project boundaries/perimeter warning the public not to enter the project site. There are many dispersed recreationists who go cross-country such as hunters, anglers, bird and wildlife watchers, etc. There are also USFS employees, volunteers, college students, and others who conduct work and research in the general forest area. A lot of people get away from roads and trails and there should be explicit instruction for warning them if they are approaching the project area.	Revised 2.1.9. Added cross-reference to Section 17, Public Access Plan, and added language to Section 17.
124	27	2.1.9.10	Correction	Refers to "Forest Service lands" and "USFS staff." See similar comments and please make corrections for consistency..	Revised 2.1.9.
125	28	2.1.9.11 Operation and Maintenance: Routine Maintenance	Steep Slopes	"*In order to maintain accessibility of the rights-of-way and accommodate pipeline integrity surveys, vegetation along the rights-of-way will be cleared periodically, and as necessary, in accordance with the Upland Erosion Control Plan and Stream and Wetland Crossing Procedures (except in areas crossed by HDD where vegetation maintenance will not be required).*" Describe what equipment would be used to periodically clear the ROW on steep slopes and explain the procedures that would be used to clear ROW on steep slopes (>40%).	Added to 2.2.1.
126	28	2.1.9.11 Routine Maintenance	Steep Slopes	"*Foot patrols are conducted by staff trained to identify potential issues such as erosion, slips, and leaks. These surveillance activities will provide information on possible encroachments and nearby construction activities, exposed pipe, and other potential concerns that may affect the safety and operation of the pipelines.*" On USFS lands, USFS Personnel shall be notified as to when this occurs. Photo documentation and log records of any issues shall be submitted after each patrol. USFS staff will be given the option to accompany trained staff during foot patrols.	Revised 2.2.1.

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127	28	2.1.9.11 Routine Maintenance	Maintenance	"*Where necessary and when required, DTI will use mechanical mowing or cutting along the right-of-way for normal vegetation maintenance."* This equipment must be preapproved by the Forest Service and maintenance dates and times must meet all USFS permit requirements in regards to time of year restrictions for sensitive species. Also, explain how ACP proposed to maintain ROW on steep slopes(>40%).	Revised 2.2.1.
128	28	2.1.9.11	Invasives	"DTI will monitor the right-of-way for infestations of non-native invasive species that may have been created or exacerbated by its construction activities, and may utilize USFS-approved herbicides to treat such infestations, in accordance with the Non-Native Invasive Species Plan." Given that ongoing maintenance poses a continuing risk of NNIS introduction and spread, monitoring and follow-up treatment will need to occur throughout the life of the project. Any herbicides applied on NFS lands must be done in coordination with USFS staff. Reporting requirements would be imposed. All herbicide use must undergo NEPA analysis with a complete resource review for effects.	Revised 2.2.1.
129	28-29	2.1.9.11 Operation and Maintenance: Major Maintenance Work	Workspace	"*However, in some instances additional workspace may be needed outside the permanent right-of-way, depending on terrain, the extent of the excavation or repairs, etc."* ATWS must be proposed by ACP and the analysis must be disclosed in the EIS.	Acknowledged. No change necessary.
130	29	2.1.9.11	Operation	The COM plan instructs that during operations, regular meetings will be held with emergency response agencies. Please provide a maximum interval to define "regular."	Added footnote to 2.2.3.
131	29	2.1.9.11, Emergency Repairs	Correction	Paragraph 4 – add "USFS wildland fire and law enforcement personnel" to local fire departments for regular meetings.	Revised 2.2.3.
132	31	2.2.1.1 Abandonment	Process	"*While Atlantic has no plans for abandonment of its pipeline facilities, if abandonment is necessary, Atlantic will either remove its pipeline facilities from NFS lands or abandon them in place as authorized or directed by the AO* ." The USFS will determine on a site-specific basis whether abandonment or removal is the best course of action, based on the sensitivity of the area and the likely impacts. Restoration of the landscape shall then be required. The intensity of the ecological restoration shall be determined based on a multi resource USFS review.	Revised 2.2.7.
133	31-32	2.3	Process	The USFS will provide key contacts in a subsequent version of this document.	No changes necessary.
134	33	3.1	Process	Clarify – if the Environmental Compliance Plan only applies to the portion of the Project on USFS lands, whether this entire document only applies to the portions of the Project on USFS lands, or just this chapter.	Revised 3.1.

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135	33	3.2 FERC Implementation plan	Steep Slopes	"*The Implementation Plan will demonstrate to the FERC, regulatory agencies, and federal/state land management agencies that Atlantic has considered all environmental requirements related to the project, and has a plan to ensure they are implemented during construction* ." Identify when will the Implementation Plan be available for review. The Implementation Plan must provide detailed project information regarding the plan to construct on steep terrain, what equipment will be used on steep slopes, and how ACP will maintain slope/soil stability according to the Forest Plan, in addition to other details such as how the ROW clearing, topsoil clearing and trenching on steep slopes would occur.	Need USFS Clarification/Discussion
136	33	3.2 FERC Implementation plan	Process	"*any changes, route realignments, facility relocations and staging area changes or additions shown on alignment sheets along with a written description of the change, existing land use/cover type, documentation of landowner approval, and a statement of any cultural or federally listed threatened or endangered species will be affected;"* Any changes on NFS Lands require approval from the USFS prior to any land disturbance. Biological and cultural surveys, and effects analysis, must have been completed prior to land disturbance for any change in the proposed route.	Revised 3.2.
137	34	3.3	Correction	First sentence is not a sentence. Correct or clarify.	Revised 3.3.
138	35	3.6.2	Correction	Clarify. Get rid of "6" at end of paragraph. Make this paragraph as similar to 3.6.5 as possible, including, add: The AO has stop-work authority for all project-related activities on all NFS lands.	Revised 3.6.2.
139	37	3.6.10	Correction	Wherever the words "agricultural and residential" occur, add "and NFS lands".	Revised 3.6.10.
140	39-40	3.9	Construction	"Variance Procedures"—Requests for variances must be submitted in writing. USFS will provide procedures for requesting a variance that was not expected.	Acknowledged. No change necessary.
141	34	3.5 Notices to Proceed	Schedule	"*Due to the two-season construction schedule, as well as the need to complete certain surveys, conduct treatment at cultural resource sites, etc., Atlantic anticipates requesting from both the FERC and the USFS partial NTPs covering those segments of the Project that are ready to commence construction and for which pre-construction conditions have been satisfied."* USFS will not grant ACP partial NTPs; a NTP will not be granted until surveys and data collection has been completed on all sections of the pipeline on NFS lands, USFS NEPA requirements have been have been satisfied, and a USFS decision has been issued.	Need USFS Clarification/Discussion

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142	35	3.6.5 FERC Environmental Project Manager	Inspection	"*The FERC Environmental Project Manager (FERC PM) will have environmental compliance oversight over the entire Project. The FERC PM will direct the activities of the Third-Party Compliance Monitoring Team. The FERC PM will have Stop Work authority for all project-related activities."* The USFS AO will have environmental compliance oversight over the entire project on NFS lands, and USFS inspectors will have stop-work authority.	Added language to 3.6.2; already stated in 3.6.3.
143	35	3.6.5 FERC Environmental Project Manager	Inspection	"*The Third-Party Compliance Manager will be responsible to approve or deny Level 2 variance requests* " On NFS lands, all requests for variance must be submitted to the USFS and only the USFS would review and approve variance requests. The USFS will provide instructions for submitting variance requests.	Need USFS Clarification/Discussion
144	35	3.6.6 Third-Party Compliance Monitoring Team	Inspection	"*The CM will assist in the review of variance requests and be responsible to approve or deny Level 1 variance requests."* *"...however, because the FERC has responsibility for environmental compliance over the entire Project, the CMs will conduct limited monitoring on NFS lands and will coordinate with the Field Compliance/Monitoring Officers* ." On NFS lands, all requests for variance must be submitted to the FS and only the FS would review and approve variance requests. FS approval is required prior to implementation. The FS will provide instructions for submitting variance requests. The USFS AO or his/her duly authorized designee will have environmental compliance oversight over the entire project on NFS lands.	Need USFS Clarification/Discussion
145	35	3.6.6 Third-Party Compliance Monitoring Team	Inspection	"*The CMs will not interact directly with the contractor but will coordinate and communicate with Atlantic's EIs.* " The CMs will also interact directly with USFS Staff.	Revised 3.6.6.
146	36	3.6.7 Project Manager	Construction	*"Atlantic's Project Manager will be responsible to Atlantic and is responsible for overall management of construction activities."* This is acceptable, however, if an alteration or relocation is necessary, the Project Manager must obtain approval from the USFS AO or his/her duly authorized designee prior to land disturbance on NFS lands.	No changes necessary.
147	36	3.6.8 Construction Site Supervisor	Construction	"*The Supervisor also has control over site-specific construction plans, **including the ability to make modifications to those plans, pending any necessary agency approvals*** ." The supervisor does not have control or permission to relocate or make any land-disturbing modifications on NFS lands, or vary from the USFS-approved activities, without prior approval of the USFS AO or his/her duly authorized designee.	Revised 3.6.8.

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148	36	3.6.10 Environmental Inspector	Inspection	"*EIs will have the authority to stop activities that violate the environmental conditions of the FERC Order, the COM Plan, stipulations of other environmental permits or approvals, or landowner easement agreements,* ***as well as order appropriate corrective action*** ." Corrective actions must be approved by the USFS AO or his/her duly authorized designee.	Need USFS Clarification/Discussion
149	37	3.6.10 Environmental Inspector	Topsoil	*"Ensuring that subsoil and topsoil are tested in agricultural and residential areas to measure compaction and determine the need for corrective action;"* Subsoil and topsoil must be also tested on forested land. The measurement and standard met for decompaction and water infiltration will be approved by the USFS.	Revised 3.6.10.
150	41-47 Overall Timber Removal Plan	4.0 in Entirety	Correction	Globally replace "AO" with "CO" – for Timber Sale Contracting Officer.	Revised 4.0.
151	41	4.1	Birds	Timber removal plan does not specify time of year restrictions for Timber removal due to T&E and MBTA concerns, nor clearance surveys during timber operations for wintering golden eagles to comply with Bald and Golden Eagle Act	Added to 2.1.1.3 and 4.6.1.
152	41	4.3	Clearing	Necessary Edits: Timber located on NFS lands will be paid for and disposed of at the discretion of the Timber Sale Contracting Officer's (CO's). The volume of merchantable timber removed for pipeline construction will be determined by a timber cruise complying with a cruise plan provided by the Forest Service. The cruise will evaluate forests within the Project's footprint and provide a volume estimate for merchantable timber. The Forest Service will perform a timber appraisal based upon this cruise to determine the value of merchantable timber to be removed. The Project will reimburse the Federal government based on that valuation, prior to any cutting taking place.	Revised 4.3.

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153	42	4.5 Timber Removal Methods	Steep Slopes	"*The Project is considering two timber-clearing methods for the Projects: mechanical harvesting and high line yarder logging. Helicopter logging is not currently being considered, but could be used in steep areas.* ***If mechanical harvesting is used on slopes greater than 35 percent, Project-specific plan amendments to both Forests' LRMPs may be required to allow logs to be skidded to their landings***" Explain how ACP will comply with the MNF's LRMP's restrictions on operating on slopes greater than 40%. Operation methods must maintain soil stability and soil productivity on steep slopes (40% to 50%). Wheeled and/or tracked motorized equipment on slopes greater than 50% is prohibited without recommendations from USFS interdisciplinary team review and line officer/AO approval (SW07). A plan amendment would require NEPA review of this activity. ACP would be required to demonstrate that they could maintain soil and slope stability.	Need USFS Clarification/Discussion
154	42	4.5.1 Mechanical Harvesting	Steep Slopes	*"Wherever possible, mechanical harvesting will be employed ."* According to SW07, wheeled and/or tracked motorized equipment is prohibited on slopes greater than 50% without USFS interdisciplinary team recommendation and line officer/AO approval. Slopes greater than 40% will need to have a site specific review and soil and slopes stability will need to be ensured.	Need USFS Clarification/Discussion
155	42	4.5.1	Steep Slopes	Skidders will be limited to slopes of 35% or less. Forwarders, skyline, or other advanced harvesting system may be utilized on slopes from 35-50% as approved by the Forest Service on a case-by-case basis. Skyline systems or helicopters may be used on slopes steeper than 50%.	Revised 4.5.1.
156	42	4.5.2	Clearing	Where cable systems are utilized, only skyline systems will be used. Partial or full suspension is necessary on steep slopes. Atlantic will not "drag logs up or downhill" without at least partial suspension.	Revised 4.5.2.
157	43	4.5.3 Helicopter Logging	Clearing	"*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****."* Helicopters are also used to safely remove timber on steep slopes and protect terrestrial and aquatic resources.	Revised 4.5.3.
158	43	4.6.1 General Requirements	Clearing	*"Non-merchantable timber will be burned, chipped, stacked along the edge of the right-of-way, hauled off-site, or salvaged for use during restoration activities (e.g., habitat construction, off-highway vehicle [OHV] blocking)."* Continue to consult with the USFS regarding this statement, because further reviews and discussions are needed.	Need USFS Clarification/Discussion
159	43	4.6.1	Clearing	Para. 4: Prior to felling, the boundaries of the construction areas will be painted with paint furnished by the Forest Service.	Revised 4.6.1.

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160	43-44	4.6.1 General Requirements	Clearing	"*Slash may be chipped and blown off the right-of-way outside wetlands or stream channels. If approved by the AO, slash may be burned. 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 top of the stumps will be ground flush to 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 a pulp mill, a permitted disposal facility, used on the rights-of-way for restoration purposes, burned, or disposed of according to land managing agency or landowner specifications.* " Further coordination with the USFS is needed prior to approval of these methods. Chipped material may not be blown off of the ROW.	Need USFS Clarification/Discussion
161	44	4.6.2 Access Roads and Storage Areas	Access Road	"*Approved access roads and storage areas for timer removal activities will be depicted on Project alignment sheets and flagged or otherwise marked in the field."* All access roads require an Order 1 Soil Survey and surveys for biological and cultural resources.	Need USFS Clarification/Discussion
162	44	4.7.1	Clearing	Necessary Edit: Landings for clearing operations will not be located in wetlands or riparian areas, and, logs removed out of wetlands or riparian areas will be winched or skylined out of the riparian area. Riparian areas are designated vehicle exclusion zones as they relate to logging operations.	Need USFS Clarification/Discussion
163	45	4.7.1 General Mitigation Measures	Clearing	"*The removal of soil duff layers will be avoided to maintain a cushion between the soil, logs, and logging equipment* ." Proper supportive surfacing material will be operated on during timber removal. Soil quality standards will be maintained and detrimental soil disturbance will be avoided (FSH 2550). Proper skid roads will be constructed if needed to ensure safe operations and protection of resources on site. Use of skid roads will not cause soil movement resulting in erosion and sedimentation. Skid roads will be remediated to ensure that slope stability and soil quality will be maintained.	Revised 4.7.1.
164	45	4.7.1 General Mitigation Measures	Clearing	"*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* " Detrimental soil disturbance will be defined by FSH 2550. Class 2 and Class 3 disturbances will be mitigated to return proper function to the soil resource. All skid trails need to be preapproved in a logging layout plan by appropriate USFS personnel and must be in compliance with USFS LRMP.	Revised 4.7.1.
165	45	4.7.2.1	Clearing	For any TES plant populations outside the workspace, please describe how impacts to these populations will be avoided during activities associated with timber removal (landings, skid trails, slash piling, chipping, blowing, feathering, etc.) that may affect areas outside the workspace.	Revised 4.7.2.1.

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166	46	4.7.2.2	Clearing	The list of mitigations provided for the GWNF in this section was selectively picked from the Forest-wide standards that pertain to scenery. Also, along the edge of the right-of-way retain visually attractive flowering trees and shrubs (FW-195).	Revised 4.7.2.2.
167	46	4.7.2.2	Clearing	Add: No timber machinery shall cross the ANST nor operate in the HDD primary or contingency zone. Add: All woody material will be moved, lopped, and/or scattered so as not to be visible from the ANST or its associated features.	Revised 4.7.2.2.
168	47	4.7.2.2	Clearing	ACP needs to clearly state if timber access roads are the same roads referenced in table 2.1.1-1. Otherwise, ACP needs to provide a separate list of access roads that will be requested for use to haul removed timber.	Revised 4.7.2.2.
169	49	5.3.1	Correction	See earlier comment on Acronyms. SAMACG is the wrong group and the wrong acronym. Correct group is Southern Area Coordinating Group (SACG). See http://gacc.nifc.gov/sacc/sacg.php or ....samac.php.	Revised 5.3.1.
170	49	5.3.1	Correction	*"The EACG and an adjunct organization, the EACC, encompasses West Virginia."* Add "The EACC and adjunct organization, the Central Appalachian Dispatch Center (CAC), provides interagency coordination for wildfire management on the Monongahela National Forest"	Revised 5.3.1.
171	49	5.3.1	Correction	"Southern Area Multi-Agency Coordination Group (SAMACG)" should be Southern Area Coordination Group (SACG) – universal edit.	Revised 5.3.1.
172	50	5.3.2	Inspection	There is a sub-section header for Chief Inspector, but the narrative uses Construction Site Supervisor. Clarify if these are interchangeable titles or if these titles refer to distinct positions with differing responsibilities. Both titles are used elsewhere, so make clarifications elsewhere.	Revised 5.3.2.
173	51	5.3.2	Fire	From the COM Plan: "Authorized Officer (AO) – The USFS will designate a Fire AO that is different from the overall AO .	Revised 5.3.2.
174	52,535,456	5.5, 5.6, 5.9	Fire	From the COM Plan: "The FSOs will contact the USFS *Duty Officer(s) through the Dispatch Center(s) for each Forest as appropriate* to obtain information on fire danger ratings."	Revised 5.5, 5.6, 5.9.
175	53	5.5	Fire	"The FSO's will contact the USFS Fire Dispatch to continue consultation with the USFS …"	Revised 5.5.
176	53	5.6	Correction	Replace "Stage 1" with "Planning Levels 2 or 3". Replace "Stage 2" with "Planning Levels 3 or 4".	Revised 5.6.
177	54	5.6.3 Equipment	Inspection	"*The construction contractor will develop a list of equipment to be used during construction. Equipment used in the construction area may be inspected by the AO or other third-party compliance monitor prior to use on the Project* ." All equipment will be subject to inspection and approval by USFS personnel.	Revised 5.6.3. Need further USFS clarification/discussion.
178	55	5.6.4	Fire	Vehicles equipped with catalytic converters and modern diesel engines with "regeneration systems" or diesel particulate filters are potential fire hazards. These vehicles will be inspected and cleaned, as necessary, and parked on areas cleared of vegetation.	Revised 5.6.4. Need further USFS clarification/discussion

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179	56	5.7	Fire	*"The appropriate burn center"* should be edited to read "ACP will to notify the WV DOF and or VA DOF, the Monongahela NF and/or George Washington Duty Officer, the appropriate county 911 center, and the local fire department at least 24 hours prior to ignition".	Revised 5.7.
180	56	5.7	Fire	The USFS requests a copy of the Fire Prevention and Suppression Plan be provided for review and approval.	Section 5 is the Fire Prevention and Suppression Plan. Need USFS Clarification/Discussion
181	56	5.6.10	Correction	Last sentence stating "only approved and properly maintained containers…" – insert "DOT" to clarify that they are the entity that approves fuel storage containers	Revised 5.6.10.
182	56	5.9	Correction	EMERGENY is misspelled.	Revised 5.9.
183	59+	6.0	Blasting	Blasting Plan needs to specifically describe planned actions to prevent blasting for adversely impacting users of the Appalachian National Scenic Trail year-round during construction.	Added bullet point to 6.7.2.
184	59	6.1 Purpose	Blasting	"*Based on an analysis of the Natural Resource Conservation Service's Soil Survey Geographic (SSURGO) Database, approximately 5.0 miles of the proposed ACP pipeline route on the MNF and 12.8 miles on the GWNF will cross areas with bedrock at depths of less than 60 inches. Some of this bedrock is considered paralithic (soft) and may not require blasting during construction. About 3.6 miles on the MNF and 7.9 miles on the GWNF cross soils with a lithic contact (hard bedrock) within 60 inches of the surface that may require blasting or other special construction techniques during installation of the proposed pipelines."* It is critical that ACP use the Order 1 Soil Survey data to designate areas where blasting is necessary. This information will provide the detail needed to assess the location and how frequent blasting will be required. Provide a detailed analysis of how blasting will occur on steep slopes to ensure slope stability.	Need USFS Clarification/Discussion
185	59	6.1	Blasting	Order 1 Soil Surveys should be used as well as Geohazard Reports to determine expected areas needing blasting.	No changes necessary.

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186	59	6.1	Blasting	The Blasting Plan needs to move beyond soil survey information in order to estimate areas and extent of blasting on NFS lands. Assess the excavation characteristics of different bedrock formations on NFS lands in terms of suitability for various non- blast techniques available to excavate bedrock (rock trenchers, rippers, rock impact hammers, hydraulic breakers, rock breaker attachments). Advances in non-blast excavation equipment in recent decades have reduced the areas where blasting is required. Some bedrock formations can be excavated by non-blast techniques, and do not require blasting. Identify by milepost the bedrock formations (or stratigraphic portions of bedrock formations) where blasting is likely needed for excavation in the pipeline corridor and along access roads. Exposures of bedrock (such as in bedrock outcrops, road cuts, or soil survey pits) along the pipeline corridor provide limited information about excavation characteristics of the different bedrock formations. The pipeline corridor is a very narrow slice through many different geologic bedrock formations. However, these bedrock formations extend for many miles to the northeast and southwest from the corridor and are exposed in road cuts, quarries and other excavations along the strike (trend) of the geologic formations outside the project footprint. Supplement the information from limited exposures of bedrock formations in the corridor with information from more extensive exposures of the same bedrock formations outside the project footprint. Conduct engineering geologic inspections of existing exposures of bedrock (natural or excavated) inside and outside the project footprint sufficient to estimate the excavation characteristics of the geologic formations in the project footprint, and to estimate by mileposts the sections of rippable rock vs non-rippable rock requiring blasting. Confer with highway departments, construction contractors and other sources as needed to classify excavation characteristics of the geologic formations during previous construction projects. Using this information on excavation characteristics of the geologic formations (or subsection of the formation) in the project footprint, provide a map and table with mileposts showing the likely areas and extent of blasting on NFS lands. Conversely, this information also can show the areas where	Need USFS Clarification/Discussion
187	59	6.3 General Requirements	Blasting	"*Blasting for grade or trench excavation will be used where deemed necessary by the Contractor, and approved by an Atlantic representative, after examination of the site."* Detailed site-specific blasting plans are needed for environmental affects analysis. All blasting on NFS land must be approved by the USFS AO or his/her designee on a site-specific basis.	Need USFS Clarification/Discussion
188	59	6.3 General Requirements	Blasting	"*Prior to any blasting activities, the Contractor will provide Atlantic with appropriate information documenting the experience, licenses, and permits associated with blasting personnel .*" All documentation must be provided to the USFS.	Revised 6.3.
189	60	6.4 Pre-Blasting Requirements	Blasting	"*The Contractor will submit to Atlantic its site-specific Blasting Specification Plan for approval prior to the execution of blasting activity."* ACP will submit the Contractor's site-specific Blasting Specification Plan for USFS approval prior to the execution of blasting.	Need USFS Clarification/Discussion

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190	64	6.7.2 Protection of Personnel	Blasting	"*In cases where such a procedure is not deemed to be feasible, the Contractor will submit an alternative procedure for review by an Atlantic representative and the site in question will be visited and examined by the consultant before any approval is granted* ." Alternative procedures will also need to be submitted for USFS approval prior to blasting.	Revised 6.7.2.
191	65	6.8 KARST	Blasting	"*Blasting will be conducted in a manner that will not compromise the structural integrity or alter the karst hydrology of known or presumed habitat for federally listed threatened and endangered species in the subterranean karst environment (e.g. Madison cave isopod)* ." Blasting will not occur in areas or within areas that are in close proximity to known threatened, endangered, sensitive, or locally rare species habitat unless preapproved by the USFS AO or his/her duly authorized designee. Identify sensitive areas that are adjacent to blasting areas and submit the list to the USFS for review.	Revised 6.8.
192	66	6.8 KARST	Blasting	"If the track drill used to prepare drill holes for explosive charges encounters a subsurface void larger than 6 inches within the first 10 feet of bedrock, or a group of voids totaling more than 6 inches within the first 10 feet of bedrock, then explosives will not be used until a subsurface exploration is conducted to determine if the voids have connectivity to a deeper karst structure. The subsurface exploration will be carried out with track drill probes, coring drill, electrical resistivity, or other techniques capable of resolving open voids in the underlying bedrock. If a track drill or coring rig is used, then all open holes will be grouted shut after the completion of the investigation." Subsurface exploration should occur as a precursor to any blasting in karst areas.	Need USFS Clarification/Discussion
193	66	6.8 KARST	Blasting	"*If the track drill used to prepare drill holes for explosive charges encounters a subsurface void larger than 6 inches within the first 10 feet of bedrock, or a group of voids totaling more than 6 inches within the first 10 feet of bedrock, then explosives will not be used until a subsurface exploration is conducted to determine if the voids have connectivity to a deeper karst structure. The subsurface exploration will be carried out with track drill probes, coring drill, electrical resistivity, or other techniques capable of resolving open voids in the underlying bedrock. If a track drill or coring rig is used, then all open holes will be grouted shut after the completion of the investigation."* Site specific erosion and sediment control plans will need to be prepared and provided for review by USFS personnel prior to any drilling in karst topography. The effects analysis for soil disturbance around these sensitive features must include detailed mitigations to ensure that soil and rock do not enter the karst system as part of this disturbance.	Added to 6.8.

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194	67	6.10 Specific USFS Guidelines	Blasting	"*The MNF's LRMP does not offer specific standards, goals, or guidelines that addressed blasting or the use of explosives."* The MNF's LRMP does provide indirect specific standards that talks to the resource sensitivities and the protection of those resources. These standards and guidelines are to be used to determine what effects blasting would occur. Soil disturbance is part of blasting therefore there are multiple standards and guides that provide direction as to the limitations of such activities as blasting. The USFS will require a blasting plan which must be reviewed and approved by the USFS. Please submit a blasting plan with the next version of the COM plan.	A site-specific blasting plan will be submitted prior to construction.
195	68	7.0	Transportation	As a general statement, a commercial road use permit would need to be applied for, and granted, to then permit any commercial use of Forest System roads. The road use permit would have detailed rules, regulations, etc. that would specifically dictate what activities/vehicles/road work/etc. would be permitted on each road, or road segment.	Need USFS Clarification/Discussion
196	68	7.0	Transportation	Construction, operations, maintenance – does not address traffic volumes, vehicle types, weights, # of trips, times, etc.	This information will be included in the Haul Plan, to be provided at a later date.
197	68	7.1	Transportation	The document states that the purpose of the Transportation Plan is to identify BMPs that Atlantic will implement during construction of the Project to minimize impacts on roadways and traffic. identify the BMPs that Atlantic will implement.	Replaced the term "BMPs" with "measures" and provided a summary listing of measures discussed in the subsections of Section 7.
198	68	7.1	Transportation	Document states the operation and maintenance will not affect traffic flows – Statement doesn't include the construction phase Does not describe how this conclusion was determined Give more specific information – quantity, low frequency, light traffic, where is off roadway vehicle use expected to be requested	This information will be included in the Haul Plan, to be provided at a later date.
199	68	7.2	Training	Give specifics of environmental and safety training. The document only mentions training during construction.	Revised 7.2.
200	68	7.3	Transportation	Please specify where there are no specific federal guidelines regarding maintenance of traffic, flagging protocol, signage, etc.	Need USFS Clarification/Discussion
201	68	7.3	Transportation	Explain the decision to defer to WVDOH manuals.	Need USFS Clarification/Discussion
202	69	7.3	Transportation	Please address roads other than just paved roads.	Revised 7.3
203	68	7.0	Transportation	Document does not describe the long-term maintenance and operations of the current road system, nor does it address the construction of additional roads in the future, such as potential skid roads and/or system roads for Forest management.	Need USFS Clarification/Discussion
204	68	7.0	Transportation	Document does not describe the right-of-ways that are planned through private lands to access public lands, and how those right of ways will include access for the Forest Service and/or the public.	Need USFS Clarification/Discussion
205	68-69	7.3	Correction	Paragraph 4 – add: …..on roadways and the Appalachian National Scenic Trail and will work ….	Revised 7.3
206	69	7.3	Correction	Correct the grammatical error in the first sentence at the top of the page.	Revised 7.3

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207	69	7.4	Correction	Correct the error in the reference to the Table regarding roads that require improvements. This section identifies the Table as Table 1, Section 1. This appears to be a placeholder. The correct reference is Table 2.1.1-1 in Section 2.	Revised 7.4
208	69	7.4	Access Road	Identify what roads would be temporary (construction) versus permanent (operation and maintenance). Also identify the encumbrance size of the road needed for these purposes (i.e. the length and width of the access road right-of-way required for temporary and permanent roads.)	Revised Table 2.1.1-1 to add construction vs. operations use, road width, and survey status
209	69	7.4	Access Road	Permanent access road crossings need to allow AOP using stream simulation design.	Need USFS Clarification/Discussion
210	69	7.4	Access Road	Road improvements shall be reviewed and approved in advance by local USFS staff. Road maintenance expectations will be spelled out in a Road Use Permit for the construction phase. Road maintenance expectations for operation and maintenance of the pipeline shall be spelled out in a Road Maintenance Agreement with the user. These documents shall dictate overall road maintenance expectations above the guidelines referenced in this section.	Need USFS Clarification/Discussion
211	69	7.4	Waterbody	Water for dust abatement should not be withdrawn from the GWNF.	Revised 7.4
212	69	7.4	Access Road	"*Some of the existing NFS roads identified for access to the pipeline right-of-way may require improvement (such as grading, widening, the addition of gravel, or removal of obstructions) to provide for proper drainage or to safely accommodate construction equipment and vehicles. Roads requiring improvements are identified in Table 1, Section 1, of this COM Plan. Such improvements will be consistent with the USDA Guidelines for Road Maintenance Levels as well as the LRMPs for both National Forests* ." All roads on NFS lands being used during pipeline construction will require USFS personnel approval prior to improvement. A "road improvement plan" is needed for review. A list of roads, their pre-project condition, and how they will be improved to meet all seasonal requirements is also required.	This information will be included in the Haul Plan, to be provided at a later date.
213	69	7.4	Access Road	The document mentions excessive rutting. Please define and explain what activities would cause excessive rutting to take place.	Revised 7.4.
214	70	7.4	Access Road	Roads damaged by construction operations shall be restored to their pre-construction condition or the level of improvement required for construction activity, and in accordance with the USDA Guidelines for Road Maintenance Levels.	Need USFS Clarification/Discussion
215	70	7.4	Access Road	Removal of trees, limbs, material, etc. would have to be applied for and approved pending environmental review.	This information will be included in the Haul Plan, to be provided at a later date.
216	70	7.4	Access Road	The document mentions snow removal. As with any other road maintenance or use, this must be requested and approved through a commercial road use permit.	Need USFS Clarification/Discussion

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217	70	7.4	Access Road	The document mentions planned road improvements are included in Attachment F. This attachment states that the access road improvement plans are "to be provided at a later date."	The Haul Plan will be provided at a later date. Development of the Haul Plan is a multi-step process. Atlantic requests feedback from the USFS regarding its list of proposed roads, prior to developing the detailed information required for the Haul Plan.
218	70	7.5	Transportation	Describe how it is verified that roads crossed by an open cut are restored to preconstruction condition.	Revised 7.4. Added use of photo-documentation.
219	70	7.5	Transportation	Describe where there is flowable fill in pre-construction condition roads.	Need USFS Clarification/Discussion
220	70	7.5	Transportation	Describe where there are not specific protocols for one-lane operation.	Need USFS Clarification/Discussion
221	70	7.5	Transportation	Temporary road closures would need to be applied for and permitted.	No change necessary.
222	71	7.5	Transportation	FR 55 – describe why the roadway is planned to be crossed 3 times in 500 feet, and twice in the same location.	Revised 7.4 (avoids sidehill construction)
223	70	7.4	Correction	Last paragraph: "guideline" is misspelled.	Revised 7.3
224	70-71	7.5	Correction	Section should be renamed as TRAVELWAYS and include at least the Appalachian National Scenic Trail throughout the section, including in Table 7.5-1.	The Appalachian National Scenic Trail is discussed in Section 2.1.9.11. Other trails are discussed in Section 17, Public Access Plan
225	71	7.5	Transportation	The document mentions an absence of federal standards for traffic control. Describe where there is an absence in federal standards for traffic control.	Need USFS Clarification/Discussion
226	71	7.5	Transportation	Be aware that restoring open cut USFS roads to their pre-construction condition may require additional gravel to maintain a safe, firm surface for passage.	Acknowledged. Revised 7.5
227	71	7.6	Transportation	The document states that the movement of construction equipment, materials, and personnel will cause a temporary increase in traffic volumes along USFS maintained roadways. Provide data, size, and traffic volumes. Define minor and short term when referring to impacts. Define non-peak hours for Forest system roads.	Need USFS Clarification/Discussion
228	72	7.7	Correction	In the title GUIDELEINES is misspelled.	Revised 7.6.
229	74	8.3.1	Topsoil	"*For the AP-1 mainline, the construction corridor in non-agricultural uplands will measure 125 feet in width, with a 40- foot-wide spoil side and an 85-foot-wide working side. In areas where full width topsoil segregation is required (e.g., agricultural areas), an additional 25 feet of temporary construction workspace will be needed on the working side of the corridor to provide sufficient space to store topsoil* ." On NFS lands, in both the MNF and GWNF, full width topsoil segregation will be required in all instances, regardless of current land use.	Need USFS Clarification/Discussion
230	75	8.3.1.	Workspace	Says temp construction is "nominal-125 feet" wide when max width should be 75 feet (FERC upland guide IV.A.2.)	The FERC does not require a nominal 75-foot construction ROW width, except in wetlands.
231	75	8.3.1	Topsoil	Topsoil segregation is required along the entire corridor on NFS lands..	Need USFS Clarification/Discussion

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232	75	8.3.1	Workspace	"*In areas with steep terrain, construction personnel will be required to work in the trench to weld the pipeline* ." Given that the Order 1 Level Soil Survey has been conducted, please provide a table outlining how much of the ROW will or will not require persons in the trench and how many miles of each width class will be needed.	Need USFS Clarification/Discussion
233	76	8.3.2	Workspace	"*ATWS will also be required in areas with steep side slopes or where special construction techniques are implemented as well as at tie-ins with existing pipeline facilities, utility crossings, truck turnaround areas, and spread mobilization/de- mobilization areas* ." All ATWS areas are subject to the same survey requirements as the ROW. Given that the Order 1 Level Soil Survey has been conducted, and slope is known, please provide either locations of these ATWS or the spacing between them on a given slope (I.e. one every 100 feet).	ATWS locations are shown on alignment sheets; this has been noted in 8.3.2.
234	76	8.3.3	Access Road	The document lists 3 new access roads, but 4 new roads area listed in table 2.1.1-1	Revised 8.3.3.
235	76	8.4	Steep Slopes	SAIPR includes only WV. Also include a document for VA.	Revised Section 8 to include VA requirements.
236	77	8.5.1	Clearing	"*Conduct initial clearing, limited to that necessary to install temporary sediment barriers* ;" Please elaborate on what will be done with cleared vegetation after initial clearing.	Revised 8.5.3.
237	77	8.5.1	E&S	"*Install all perimeter BMPs immediately after any bulk earth-moving activity* ;" Please describe a 'bulk earth-moving" activity. The USFS would consider road grading, road use, log skidding, etc. to be "earth moving activities" and would require BMPs to be in place for these as well. BMPs are to be used with all earth disturbing activities both small scale and large scale. At all times the Forest plan is expected to be followed with regard to erosion control protection both short term and long term.	Need USFS Clarification/Discussion
238	77	8.5.1	Access Road	"*Modify access roads by grading and installing stone where needed* ;" Installation and upgrade of water control features are also necessary.	Need USFS Clarification/Discussion
239	77	8.5.1	Topsoil	*"Grade the ROW, and segregate topsoil where necessary; and"* All topsoil will need to be separated and stockpiled on NFS lands.	Need USFS Clarification/Discussion
240	77-79, 81, 83, 84, 87	8.5.1, 8.5.4, 8.5.7, 8.5.9, 8.5.10, 8.5.14, etc.	T&E	Please describe any additional protective measures or specialized controls that will be installed to protect TES plants downslope of the workspace from any changes in upslope water runoff, sedimentation, and/or erosion. Please describe how these additional protective measures will be monitored for effectiveness during construction. Describe or define "critical areas." Describe what sorts of seed mixes will be used for revegetation and restoration, or indicate where that information may be found.	This information is included in the Biological Evaluation, which will be attached to the COM Plan when it has been completed and reviewed by the USFS.

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Comment No.	**Page No.**	**Section No.**	**Subject**	**U.S. Forest Service Comment**	**Status**
241	81	8.5.7	SWPPP	"*Sediment removed from erosion controls will be disposed by adding to existing onsite soil stockpiles and stabilizing, or will be reused onsite within the construction ROW and outside of any wetlands, streams or riparian areas* ." Soil contaminated by construction waste (hydraulic fluid, oil, gas) or with NNIS seed should be treated and disposed of properly to ensure that no contamination or infestation occurs.	Added to 8.5.10.
242	82	8.5.8	E&S	On NFS lands, all silt fences will be removed and discarded properly after project completion. Soils will be stabilized and seeded accordingly, per approval by the USFS. Permanent erosion control protective measures will be utilized if seeding alone will not stabilize the site and provide soil stability.	Revised 8.5.8
243	82	8.5.9	E&S	"*A temporary ridge of compacted soil constructed at the top of a sloping disturbed area will be used to divert storm water runoff from upslope drainage areas away from unprotected slope* ." Identify the source of the soil that will be compacted and used to construct these earthen features. Topsoil should not be used for construction of temporary diversion dikes. Subsoil used to create these features will need to be de-compacted prior to replacing it in the pipeline trench. Intense storms in the Appalachian ridges can result in severe erosional forces, as evidenced by recent and past events. Temporary ridges would not be effective in mitigating the effects from a 3 to 9 inch event. Additional storm runoff and diversion measures will need to be utilized to prevent erosion and sedimentation impacts from such storms.	Need USFS Clarification/Discussion
244	82	8.5.9	E&S	Please provide an estimate of the number of each sediment control method that will be installed for this pipeline (i.e. how many miles/locations of silt fence, how many instances of diversion dikes?).	Added to 8.5.6 (silt fence only; have not estimated feet of diversion dikes).
			E&S	Define the total estimated length of diversion dikes and exposed soil that will be occurring in active operation at any time. Coordinate between WV and VA BMP methods to maximize protection of the resources at any given time during operations.	Will be provided at a later date.
245	82	8.5.9	E&S	"*The diversion dike and channel will be stabilized immediately following installation with temporary or permanent vegetation* ." Vegetation at these sites must be from the pre-approved seed mixes and shrubs provided by the USFS.	Need USFS Clarification/Discussion
246	84	8.5.10	E&S	"*A temporary ponding area formed by constructing an earthen embankment with a stone outlet may be used to detain sediment-laden runoff from small disturbed areas (where total drainage area is less than three acres) to allow sediment to settle out prior to discharge."* Describe what source of soil will be compacted and used to construct these earthen features and where will sediment ponds be constructed (ATWS, ROWs, etc.). Topsoil should not be used for construction of temporary diversion dikes. Subsoil used to create these features will need to be de-compacted prior to replacing it in the pipeline trench, within the ROW, or within an approved ATWS.	Revised 8.5.10.

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Comment No.	**Page No.**	**Section No.**	**Subject**	**U.S. Forest Service Comment**	**Status**
247	84	8.5.10	E&S	"*The maximum useful life of a temporary sediment trap is 18 months. Traps will be replaced should the construction period exceed 18-months."* Sediment traps may need to be replaced sooner than 18 months (on an as needed basis) if at any time the cease to be effective. This will be determined based on the regularly scheduled inspections of these traps. Continual erosional control, inspection, and maintenance are expected on all parts of the project at all times until the landscape is deemed stable. Permanent features will replace temporary features if the erosional feature does not become stable in the short term (less than 18 months).	Revised 8.5.10.
248	84	8.5.10	Restoration	*"Fill material shall be free of roots or other woody vegetation, large stones, or organic matter and compacted in 6-inch lifts* ." Describe what will be done with roots, vegetation, stones, and organic matter sifted from the sediment trap material.	Revised 8.5.10.
249	85	8.5.10	E&S	"*The construction ROW will be graded as needed to provide a level workspace for safe operation of heavy equipment used in pipeline construction* ." Please explain how ACP intends to make level working surface on the slopes encountered across this ROW (15%-65+ %)	Need USFS Clarification/Discussion
250	85	8.5.10	Topsoil	"*In areas where full width topsoil segregation is required, an additional 25 feet of temporary construction workspace would be needed on the working side of the corridor to provide sufficient space to store topsoil* " On NFS lands along the entire route through both the MNF and GWNF, all soil disturbed will have topsoil segregated and stockpiled separately. Please clarify whether extra width will be needed throughout NFS lands.	Need USFS Clarification/Discussion
251	85	8.5.10	Workspace	"*Because of the increased need for additional ROW width and loss of additional forestland, and need to remove stumps, which would increase topsoil mixing with subsoil and the increase the potential for erosion, topsoil segregation is generally not conducted in forested areas* ." The majority of the ROW through MNF lands will be forested and ACP will be required to separate and stockpile topsoil separately in all areas where the ROW crosses NFS lands on both the MNF and GWNF. .	Need USFS Clarification/Discussion
252	85	8.5.12	Topsoil	Topsoil segregation is required on entire route through both the MNF and GWNF. Revise paragraphs 2 and 4 accordingly as well as other relative discussions in the document.	Need USFS Clarification/Discussion

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253	85, 91	8.5.12, 8.5.24	Invasives	Please describe how areas containing Non-Native Invasive Species (NNIS) plants prior to disturbance will be handled, or describe where this information is to be found. Discuss how topsoil disturbance, segregation, and re-distribution methods will be implemented to prevent NNIS from spreading or from being introduced. Describe what sorts of seed mixes will be used for revegetation and restoration, and provide alignment sheets showing where different mixes will be applied, or indicate where that information may be found. Describe what sorts of seed mixes will be used for revegetation and restoration, or indicate where that information may be found.	Revised 11.4.2.2.
254	86	8.5.12	Topsoil	"*Never use topsoil for padding the pipe, constructing temporary slope breakers, trench breakers or trench plugs, improving or maintaining roads, or as a fill material* ." Topsoil will not be used for constructing sediment barriers of any kind.	Revised 8.5.12.
255	86	8.5.12	E&S	"*All perimeter dikes, berms, sediment basins, and other sediment controls shall be in place prior to stripping. These practices must be maintained during topsoiling* ." If sediment controls (like earthen sediment traps and temporary dikes) are already in place prior to topsoil stripping, describe what material would be used to construct these sediment control features. Imported material must pass rigorous standards to ensure no incompatible soil substrate or contaminant (construction waste, NNIS seed) is brought on-site. Consult with the USFS regarding this matter.	Need USFS Clarification/Discussion
256	87	8.5.13	Restoration	States excavated rock that is not backfilled in the trench may be "*windrowed on the edge of the ROW per AO approval* ." Establishing windrows on the edge of the ROW could disrupt overland flow patterns and thus is not permitted on NFS land.	Need USFS Clarification/Discussion
257	87	8.5.13	Restoration	States excavated rock that is not backfilled in the trench may be "*used as riprap for streambank stabilization as allowed by applicable regulatory agencies and provided the rock is uncontaminated and free of soil and other debris* ." Excavated rock may be used as riprap on NFS land only if the USFS determines on a site-specific basis that streambank stabilization is necessary and that riprap is the best method for achieving stabilization.	Need USFS Clarification/Discussion
258	87	8.5.13	E&S	"*Each diversion should exit onto stabilized ground. It should never exit onto the ROW where it can run down to the next diversion* ." Even though the water captured in these slope breakers is discharged on areas off the ROW (referred to here by ACP as 'stabilized ground'), these areas remain susceptible to erosive forces. These output areas need to be reinforced, checked and maintained routinely.	Revised 8.5.15.

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259	88	8.5.18	E&S	"*Permanent sacks of sand, polyurethane foam, bentonite clay, or possibly cement (in areas of steep terrain) bags installed around the pipe will remain in the trench to prevent subsurface channeling of water along the trench* ." Please provide references (scientific literature, case studies) as to the effectiveness of this method. From a soils standpoint, placing non-native bags of sand, foam, clay, or cement around the pipe could create a scenario that encourages water infiltration in those areas. Increased water to these foreign bags of materials could saturate these materials, thereby making them heavy and prone to slipping. This may not be such an issue for cement or foam, but is definitely something that should be considered if sand or clay material is proposed for use.	Refer to the FERC Upland Erosion Control Plan. This document is the best testament to the efficacy of trench breakers; its requirements are based on experience with many hundreds of pipeline projects.
260	90	8.5.19	E&S	"*Dewatering may be periodically conducted to remove accumulated groundwater or precipitation from the construction ROW, including from within the trenchline* ." Identify to where will this water be diverted. If this water is to be discharged on NFS land, a protocol must be established to ensure that protection of resources occurs and contamination of surface and subsurface water does not occur.	Revised 8.5.17.3.
261	92	8.5.15.2 8.5.15.3	Correction	Please correct section numbers.	Corrected section numbers.
262	93	8.5.26	E&S	Any erosion control fabric that is non-biodegradable should be temporary and completely removed as soon as vegetation is established. (see also comment from p. 20, section 2.1.9)	Need USFS Clarification/Discussion
263	93	8.5.25	E&S	Please describe any additional protective measures or specialized controls that will be installed to protect TES plants downslope of the workspace from any changes in upslope water runoff, sedimentation, and/or erosion, or indicate where these procedures are described. Please describe how these additional protective measures will be monitored for effectiveness during construction. Describe or define "critical areas." This section describes spacing as, "the same as described in 91.5.3," but considering that this section comes first, the spacing should be described here.	Need USFS Clarification/Discussion
264	94	8.5.26	Restoration	Describe what sorts of seed mixes will be used for revegetation and restoration. Please include this information in a Revegetation Plan.	Revised 10.3.1.10.
265	94	8.5.15.4 8.5.15.5	Correction	Please correct section numbers.	Deleted erroneous section numbers.
266	96	8.6	T&E	One of the MNF's TE plant species, running buffalo clover (RBC), is often found along roadsides and in the center lines of gravel roads. All areas of access roads that need grading, gravelling, or widening will need to have been surveyed for RBC and that data conveyed to MNF botany staff prior to said activities beginning. Please describe any additional protective measures or specialized controls that will be installed to protect TES plants downslope of the workspace from any changes in upslope water runoff, sedimentation, and/or erosion; or indicate where these procedures are described. Do not side cast material into areas containing known populations of TE or RFSS plants.	Need USFS Clarification/Discussion

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267	96	8.6	Access Road	"*Will locate roads as far as practical from the stream channel and maintain an unbroken organic litter layer on the forest floor* ." As a general rule, access roads should avoid stream channel buffers as defined in the Forest Plans. Any exceptions must be approved on a case by case basis by the USFS AO or his/her duly authorized designee.	Need USFS Clarification/Discussion
268	96	8.6	Access Road	Remove reference to use of mulch as a road surfacing material.	Revised 8.6.
269	96	8.6	Access Road	"*Skimming or removal of saturated soils from access roads will be avoided* ." Please define skimming. If the roadbed is unsuitable, ACP has already stated they will apply gravel and/or mulch and adequate drainage structures to remove water from the road bed surface. Detrimental soil conditions from use will not be permitted and active mitigation will be used to ensure that soils do not become saturated.	Revised 8.6.
270	96	8.6	Steep Slopes	Use of full bench construction with end hauling is REQUIRED when side slopes exceed 60 percent.	Need USFS Clarification/Discussion
271	97	8.7		Sensitive areas are described as including wetland crossings and residential areas, and in this section, other areas or issues addressed include winter construction, steep slopes, seeps, karst, areas of HDD, agricultural, residential, road crossings, and waterbody crossings. Please also describe how all impacts will be avoided to all areas containing Threatened, Endangered, and Regional Forester's Sensitive Species plants and animals, including species existing downslope or adjacent to the workspace that could be otherwise affected. If avoidance is not possible, please describe minimization measures that will be implemented to reduce impact for each occurrence of each species. If minimization is not possible, please describe mitigation measures that will be implemented to ensure that any impact is compensated for in a way that maintains current population levels of these plants to the maximum extent possible. If this information is not included in this section, please indicate where these avoidance, minimization, and mitigation measures are to be found.	This information is included in the Biological Evaluation, which will be attached to the COM Plan when it has been completed and reviewed by the USFS.
272	98	8.7.3	Steep Slopes	ACP outlines how they plan to address the steep slope/landslide issues in a stepwise manner. Given that the majority of the surveys are completed, ACP should have the information they need to perform this assessment and provide the results of the analysis here in this document for NFS lands. This section should be displaying the high risk areas on the landscape and provide a discussion with a series of plans of how exactly ACP is going reduce the risk of landslides in these areas.	See Comment 118.
273	101	8.7.4	Waterbody	Seeps – expand this section to describe what restoration measures will be planned if subsurface flow is encountered. Often when a seep is exposed, the seep will be vulnerable to drainage issues post construction. Describe the reclamation plan. It is highly likely that seeps will be encountered.	Revised 8.7.3.

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274	101	8.7.6	Correction	This one-sentence section states that HDD is addressed in section 9.0. It is not, since 9.0 only deals with Stream and Wetland Crossings, and the only HDD on USFS lands is not associated with stream or wetland crossings. Please correct this and add an additional section on HDD under ANST and NPS-BLRI, including both primary HDD and contingency DPI.	Deleted all single sentence chapters referring to other sections of COM Plan.
275	102	8.11	Monitoring	Please also maintain records and report on any herbicide application for vegetation maintenance and/or NNIS control, both pre- and post-construction. Quarterly reporting and meetings with the USFS will be required.	Revised 8.10. Suggest meetings to be scheduled "as requested by USFS" instead of standing quarterly meeting - herbicides will not be applied every quarter.
276	103	8.12.1	Restoration	Document states “Revegetation in non-agricultural areas shall be considered successful if upon visual survey the density and cover of non-nuisance vegetation are similar in density and cover to adjacent undisturbed lands.” USFS lands are non-agricultural, but the density and cover of vegetation on the pipeline will not be similar to adjacent undisturbed lands ever, since the pipeline will be maintained in a non-forested condition. This does not seem to be an appropriate monitoring item.	Replaced language with reference to Section 10.4.
277	103, 104	8.12.1	Invasives	“Revegetation in non-agricultural areas will be considered successful if upon visual survey the density and cover of non- nuisance vegetation are similar in density and cover to adjacent undisturbed lands.” Please either define “nuisance vegetation” as NNIS, or use the term “non-native invasive species” or “NNIS” in this provision, either instead of or in addition to “non-nuisance.” “Non-native invasive species and noxious weeds are absent, unless they are abundant in adjacent areas that were not disturbed by construction.” If NNIS are visibly abundant in areas adjacent to the workspace, it is safe to assume that there is a seed bank of the same species in the workspace, even if those species are not currently growing there. Construction activities can disturb an existing seed bank and encourage NNIS germination. If a new infestation of NNIS appears in ground disturbed by construction, and if there is an existing population of the same species adjacent to the workspace, the USFS requires that ACP control it as part of the NNIS management plan.	Need USFS Clarification/Discussion
278	104	8.12.2	Monitoring	Quarterly reporting will be required, including reporting of progress of revegetation efforts along the entire ROW on NFS lands and continue revegetation efforts and annual reports until revegetation is successful. Success will determined by the USFS.	See Section 10.4.

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279	104	8.12.2	Maintenance	"*Do not use herbicides or pesticides in or within 100 feet of a wetland, except as allowed by the appropriate federal or state agency* ." Only USFS approved herbicides/pesticides will be used on NFS lands. A list of those approved herbicides should be provided in an Appendix. Aquatic formulations are required in areas with wet soils, riparian habitats, and other resource sensitive areas given the general wetness of the Appalachian mountains. The USFS must approve the use of all herbicides, based on information provided to the USFS including but not limited to the timing of herbicide use, application rates, and target species.	Attachment J includes the herbicides proposed for use on USFS lands.
280	104	8.12.2.	Maintenance	The document states, " Do not use herbicides or pesticides within 100 feet of wetlands." A term and condition to the special use permit would prohibit ANY use of herbicides/pesticides without prior written approval. NEPA would be required before herbicides could be used.	See Comment 279
281	104	8.12.2	Maintenance	Document states "No herbicide or pesticides in or within 100 feet of a wetland." Include the appropriate buffer for streams as set forth in Forest Plans, also.	Revised 8.11.2
282	105	8.14	E&S	Document states: "The Virginia Erosion and Sediment Control Law Minimum Standard 16a requires that no more than 500 feet of trench remain open at one time. However, this requirement would significantly slow construction and increase the amount of time the work area remains disturbed. In accordance with 9 VAC 25-870-50, Atlantic will request to that DEQ waive Minimum Standard 16a." This standard is in place to help minimize erosion and sedimentation. Unknown to the USFS, a waiver was granted for the Celenses pipeline replacement, and there was excessive erosion and sedimentation at this location following a heavy rain event. Such a waiver would not be allowed on NFS lands.	Need USFS Clarification/Discussion
283	105	8.14	E&S	Variance to VA DEQ Minimum Standard 16a, 500 feet of open trench at any one time, is requested to be waived by ACP. ACP does not present any proof that this causes significant increases in disturbance/construction time and on the steep mountainous terrain of the GWNF. Because DEQ has this standard for a reason, the USFS will require the standard to be followed on NFS lands.	Need USFS Clarification/Discussion
284	105	8.14	E&S	Construction practices shall be planned in such a manner that the minimum standard 16a is met while still allowing for construction timeline needs. No variance shall be granted on NFS lands without site specific approval by a USFS AO prior to implementation. The USFS will provide very specific protocol for requesting variances.	Need USFS Clarification/Discussion

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285	105	8.13.1	E&S	"The installation of the ACP pipeline is an example of such a Project where the areas disturbed will be returned to their pre- development condition." "…forest/open space or managed turn will be returned to a vegetative state and characteristics of storm water should remain unchanged." While it is true that the ACP pipeline as proposed may not create a significant increase in impervious surface along the majority of its route, there will be significant permanent changes to the vegetative composition of the pipeline corridor, as well as potential changes to soil compaction and other environmental conditions. These changes together will have a measureable impact on the ability of the land within the pipeline corridor to intercept, absorb, and retain both aboveground and belowground flow. Therefore please cite the WVDEP materials that support the statement above and that justify not considering post-construction storm water management measures.	Need USFS Clarification/Discussion
286	105	8.15	Correction	On NFS lands, additional measures will be implemented in conformance with the applicable standards and guidelines identified in the MNF LRMP …**and GWNF LRMP.**	Revised 8.14
287	105	8.15	Correction	Add "and GWNF LRMP," not just the MNF LRMP.	Revised 8.14
288	107	8.15.1	Waterbody	"*When stream crossing structures are removed, stream channels shall be restored to their near natural morphology (width, depth, and gradient associations for streambeds, streambanks, floodplains, and terraces). Disturbed soil shall be stabilized. (**MNF LRMP SW36**)."* Pre-crossing-structure measurements of the original/natural stream channel must be recorded to facilitate the restoration.	Need USFS Clarification/Discussion

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289	106, 110-121	8.15.1, 9.0-9.5, 10.0	Restoration	The following apply generally to all construction and restoration on the ACP: Topsoil containing NNIS should be left undisturbed to the degree possible, be segregated from topsoil free of NNIS, and be both stockpiled and re-distributed so as not to further contaminate any new areas. All construction equipment and materials (including hand tools) must be free of soil, seeds, plant parts, and other material that could contain or hold seeds when such equipment and materials arrive and leave the site. Do not clean equipment on NFS lands. Any cleaning on NFS lands must be approved by the Forest Service on a case-by- case basis. If mulch is necessary, do not use hay. Substitute clean straw, wood or paper fiber, coconut fiber, synthetic mulch, or other Forest Service-approved material that is not likely to contain seeds or viable parts of invasive plants. Erosion barriers should be constructed of synthetic materials, clean straw bales, or other Forest Service-approved material that is not likely to contain seeds or viable parts of invasive plants. If any seeding for stabilization is necessary, the seed mix cannot contain any invasive plants. Seed must be accompanied by the vendor's test results, which must demonstrate that the seed is substantially free of noxious weeds. Any seeding proposals by contractors or cooperators must identify the scientific names of all species to be planted and must be submitted to the Forest Service for review and approval prior to implementation.	Revised 11.4.2.2, 8.5.12, 10.3.1.9. Removed references to using hay as mulch or erosion control material throughout document.
290	109	8.15.2	Correction	The last 4 bullets are Forest Plan Standards, NOT Desired conditions, as labeled. There are some additional applicable standards that are not included here.	Revised 8.14.2, and added several standards throughout document.
291	110	9.2	Workspace	Extra work areas need to be minimum 100 feet from waterbody or wetland.	Need USFS Clarification/Discussion
292	110	9.2	Workspace	"Extra Work Areas" states that site-specific justifications for decreasing the proximity of work areas to waterbodies or wetlands and expanding the 75 ft. wide construction ROW in wetlands will be submitted to the USFS for review and approval prior to the beginning of construction. These areas should be identified in the alignment sheets and specifically identified in this COM plan. Any variance must be submitted to the USFS for review and approval. Limit the number and scope of possible variances.	Noted. No change necessary.
293	111	9.4.2.1	Correction	The dates for work in UNT to Shock Run and UNT to Sugar Camp Run are shown as July 1 – March 31. Table 2.1.1-4 list both of these as warm water fisheries. Both are cold-water fisheries, so these dates are incorrect.	Revised Table 2.1.1-4
294	111	9.4.2.1	Waterbody	The document only includes channeled ephemeral standards for timing of road construction. It needs to include those from the riparian prescription also (11-048 and 11-049)	Revised 9.4.2.1.
295	111	9.4.1	Correction	COE – correct acronym is USACE - for US Army Corps of Engineers. Update in glossary/ acronym terms also.	Revised 9.4.1
296	111	9.4.1	Correction	Specified in—add space between words.	Revised 9.4.1

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297	111	9.4.2.2	Workspace	"*Locate all extra work areas (such as staging areas and additional spoil storage areas) at least 100 feet away from water's edge, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land."* The USFS will require that all work areas be located outside of the stream channel buffers as defined in the Forest Plan.	Need USFS Clarification/Discussion
298	111	9.4.2.2	Workspace	"Preconstruction Filing" states that site-specific justifications for extra work areas with a less than 100-foot setback from the water's edge will be submitted to the USFS for approval. These areas should be identified in the alignment sheets and specifically identified in this COM plan. Limit the number and scope of variances.	These will be shown on alignment sheets.
299	112	9.4.2.3	Correction	COE – correct acronym is USACE - for US Army Corps of Engineers. Update in glossary/ acronym terms also. Change globally throughout document.	Revised 9.4.1
300	112	9.4.2.3	Workspace	"*Where pipelines parallel a waterbody, maintain at least 15 feet of undisturbed vegetation between the waterbody (and any adjacent wetland) and the construction right-of-way, except where maintaining this offset will result in greater environmental impact* ." Fifteen feet is insufficient. Stream channel buffers from the Forest Plans will be applied.	Revised 9.4.2.3.
301	112	9.4.2.2	Waterbody	Extra work areas need to be minimum 100 feet from waterbody or wetland.	Revised 9.4.2.2. Added "or wetland".
302	112-113	9.4.2.3	Waterbody	Document only includes channeled ephemeral standards for road construction. It needs to include those from the GWNF riparian prescription also (11-047 through 56)	Revised 9.4.2.1.
303	113	9.4.2.3	Waterbody	Add: Construction of crossings is completed on all channeled ephemerals as soon as possible after work has started on the crossing. Permanent and temporary roads on either side of crossings within the channeled ephemeral zone are graveled (GWNF LRMP FW-24). Any human-caused disturbances or modifications that may concentrate runoff, erode the soil, or transport sediment to the channel or waterbody are rehabilitated or mitigated to reduce or eliminate impacts. Channel stability of streams is protected during management activities (GWNF LRMP DC 11-001). When working in any waterbody, especially those known to have aquatic nuisance species, remove any visible mud, plants, fish or animals before transporting equipment, eliminate water from equipment before transporting, clean and dry anything that came in contact with water (boats, trailers, equipment, clothing, dogs, etc.), and never release plants, fish or animals into a body of water unless they came out of that body of water (GWNF LRMP DC 11-011).	Revised 9.4.2.3

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304	113	9.4.2.4	Waterbody	Upland spoil will be placed in the construction right-of-way at least 10 feet from the water's edge… Describe what agency and standard is being applied here that allows for 10ft buffer of spoil pile next to water's edge. It seems ACP would want spoils within the ROW but as far away as water's edge as possible and stabilize with silt fence. 10feet seems like an absolute minimum. On USFS lands, preference is for a maximum buffer distance. Expand this section.	Revised 9.4.2.3. Added "Consistent with the FERC Procedures…"
305	113	9.4.2.4	Correction	References Section 8.2.2, which does NOT exist in this document. Update section # or include text here.	Revised 9.4.2.4.
306	113	9.4.2.5 and 9.4.2.6	Waterbody	Include GWNF riparian standards for crossings. These are missing from the document.	Revised 9.4.2.3.
307	114	9.4.2.4	Access Road	Where new roads cross streams or high-risk areas, disturbed soils will be stabilized and designed drainage structures will be installed as soon **as practical**. NO, E&S Control measures for high-risk areas and crossings will be installed **immediately**. In fact, construction plans for these sites should ultimately be designed for concurrent stabilization.	Revised 9.4.2.6
308	114	9.4.2.6	Access Road	*The National Best Management Practices for Water Quality Management on National Forest System Lands* (publication FS-990a, April 2012), as well as the Forest Plan calls for temporary (e.g. skid roads) to be obliterated and the area returned to resource production at the completion of their intended use. This includes de-compacting road surface, restoring natural slopes and surface and sub-surface hydrologic pathways, re-establish drainage ways, remove unstable road embankments, removing crossing structures and fills.	Need USFS Clarification/Discussion
309	114	9.4.2.7	Waterbody	Dam and Pump also include: When working in any waterbody, especially those known to have aquatic nuisance species, remove any visible mud, plants, fish or animals before transporting equipment, eliminate water from equipment before transporting, clean and dry anything that came in contact with water (boats, trailers, equipment, clothing, dogs, etc.), and never release plants, fish or animals into a body of water unless they came out of that body of water (GWNF LRMP DC 11-011).	Revised 9.4.2.7.
310	114	9.4.2.7	Waterbody	Will use dry ditch methods for waterbodies up to 30 feet wide. Describe the crossing method for waterbodies greater than 30 feet wide.	Revised 9.4.2.7. All active streams on USFS will be crossed with dry ditch methods.
311	115	9.4.2.8	E&S	Sediment barriers should be installed prior to, or concurrent with, disturbance (not after).	Revised 9.4.2.8 to "concurrent with"…
312	115	9.4.3	Waterbody	Clean gravel or native cobbles should be used in all waterbodies, not just those with coldwater fisheries. Describe what is proposed for non-coldwater fishery waterbodies. Explain why it would only be used in upper 1 foot of trench backfill. What if there is scour? What does the scour analysis say for stream crossings?	Need USFS Clarification/Discussion
313	116	9.4.3	Waterbody	Include GWNF forest plan standards from riparian prescription.	See Comment 306.

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314	116	9.4.3		Bullet #4 refers to erosion control fabric and states that "*Atlantic will not use synthetic monofilament mesh/net erosion control materials in areas designated as sensitive wildlife habitat …* ". Any synthetic erosion control materials used anywhere on NFS lands must: (1) be approved by the USFS on a case-by-case basis; (2) not pose a risk of animal entrapment; (3) not be unsightly or degrade scenic integrity; and (4) be biodegradable or removed once stabilization has been achieved.	Revised 9.4.3.
315	116	9.4.3	Correction	5. COE – update to USACE	Revised 9.4.3.
316	116, 117	9.4.4	Correction	to allow ; species across ; that are; riparian areas – needs space between words	Revised 9.4.4.
317	117	9.5	Workspace	"Wetland Crossings" states that prior written approval of the USFS will be sought in wetland areas where the construction ROW needs to be expanded beyond 75 ft. These areas should be identified in the alignment sheets and specifically identified in this COM plan. Limit the number and scope of possible variances.	Noted. No change necessary.
318	118	9.5.1.1	Workspace	100-foot setbacks are required, not 50-foot setbacks. Include applicable GWNF standards.	Revised 9.5.1.1 to 100-foot setback from wetlands..
319	118	9.5.1	Workspace	"Extra Work Areas and Access Roads" states that site specific justification for extra work area with a less than 50-foot setback from wetland boundaries will be submitted to the USFS for approval. To the greatest extent possible, these areas should be identified in the alignment sheets and specifically identified in this COM plan. Limit the number and scope of variances.	Revised 9.5.1.1 to 100-foot setback from wetlands.
320	118	9.5.1.2	Correction	COE – update to USACE throughout document	Revised 9.5.1.2.
321	118	9.5.1.2	Clearing	"Atlantic may burn woody debris in wetlands, if approved by the COE and in accordance with state and local regulations, ensuring that all remaining woody debris is removed for disposal." Authorization on USFS lands will be determined by a USFS AO, who will establish the appropriate method of woody debris management on NFS lands based on site specific needs. Removing debris or burning is not a normal wetland process. USFS requires minimal changes or impacts to these sensitive ecosystems.	Revised 9.5.1.2, deleted burning in wetlands sentence.
322	119	9.5.1.2	Construction	"*If standing water or saturated soils are present or if construction equipment causes ruts or mixing of the topsoil and subsoil in wetlands, Atlantic will use low-ground-weight construction equipment, or operate normal equipment on timber riprap, prefabricated equipment mats, or terra mats* ." If ruts are already created by equipment, it would not be helpful to then use low ground pressure equipment. The USFS requires that if standing water or saturated soils are present, ACP should automatically use low-ground-weight construction equipment and prepare the site for operation by providing proper drainage. Any compacted soils would need to be decompacted.	Revised 9.5.1.2. Deleted "or if construction equipment causes ruts or mixing of the topsoil and subsoil in wetlands"
323	119	9.5.1.4	E&S	"*Atlantic will dewater the trench (either on or off the construction right-of-way) in a manner that does not cause erosion and does not result in silt-laden water flowing into any wetland* ." Please explain steps taken during the de-watering process. Silt laden water is to be prevented from flowing into any water body.	Revised 9.5.1.4.

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324	119	9.5.1.4	Restoration	"*Where the pipeline trench may drain a wetland, Atlantic will construct trench breakers at the wetland boundaries and/or seal the trench bottom as necessary to maintain the original wetland hydrology* ." If earth-moving activities occur in a wetland, the original hydrology has been disturbed. Explain how does ACP would re- create the original hydrology or mitigate the internal hydrology that sustained the wetland.	Revised 9.5.1.4.
325	122	10.1	Restoration	This section provides for the purpose of the Restoration and Rehabilitation Plan. Add a statement or paragraph to the Purpose that site restoration and rehabilitation will reduce the impacts to scenery.	Revised 10.1
326	122	10.1	Restoration	"Seed mixes and soil amendments have been developed and added to this Restoration and Rehabilitation Plan for Pocahontas [County]" The MNF and GWNF have been developing a variety of seed mixes appropriate for various conditions expected to be found on the pipeline. Please incorporate the MNF's recommendations into final seed mix decisions. The proposed seed mix is not approved for use on MNF lands.	The Restoration and Rehabilitation Plan has been revised to include the seed mixes recommendations, seeding techniques, and other guidance provided by the USFS.
327	122	10.3.1.2	Restoration	Earlier in the document it was stated that this section would cover Revegetation; it was also stated that 10.3.1.9 would cover mulching. Please fix section numbers.	Revised 10.3.1.2.
328	123	10.3.1.1	E&S	"*During construction, the effectiveness of temporary erosion control devices will be monitored by Atlantic's EI* ." The USFS will require approval of ACP's contracted EI and will employ its own compliance monitors. Monitoring will be required to be reported and followed up to ensure that erosion control devices continue to function.	Need USFS Clarification/Discussion
329	123	10.3.1.2	Restoration	"*Successful revegetation is dependent on appropriate soil conditions and can be influenced by several factors, including soil texture, drainage class, salinity, and acidity* ." Please include soil compaction (density) and microbial health as soil factors that influence successful revegetation. Refer the reader to the Order 1 Soil Survey for an analysis of baseline conditions.	Revised 10.1.3.2.
330	123	10.3.1.2	Restoration	"*Preparation of the soil for revegetation* ." Please refer to another section if you have already outlined it- or elaborate. There is not enough information given here to determine whether this is appropriate.	Revised 8.5.24
331	123	10.3.1.3	Restoration	USFS requires compaction testing in all areas prior to topsoil replacement.	Need USFS Clarification/Discussion

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Comment No.	**Page No.**	**Section No.**	**Subject**	**U.S. Forest Service Comment**	**Status**
332	124	10.3.1.3	Restoration	"*In rocky or heavily rooted soils, compaction may be impossible to measure and rectify without additional damage .*" Measuring compaction in rocky or rooty soils should not cause damage. Remediating this problem could cause damage to ACP equipment in rocky or rooty soils. In this case, Atlantic should work on an alternative to conventional methods used to treat compaction in these soils. Rocks could be sorted, roots could be sorted, and then mechanical treatment could take place. Subsoil/topsoil replacement could be brought in after USFS approval. Mulch inoculated with microbes known to promote decompaction could be applied to the surface. This phrase seems to be a loophole that would allow for a determination that decompaction could not be done on a substantial length of the ROW if these conditions were deemed to exist by non-FS personnel.	Revised 10.3.1.3 to indicate that soil decompaction is required. Need further USFS clarification/discussion
333	124	10.3.1.3	Restoration	"*If compaction testing is impeded by rock or roots, Atlantic may conclude that there is a suitable amount of large material in the soil to rectify potential compaction* " Please explain how rocks or roots could impede ACP from using a pocket penetrometer to measure compaction. In addition small cat sized test holes could be dug to look at soil structure and other soil related properties to determine if compaction is present. This statement needs to be stricken and replaced with a statement that provides methods on how to assess compaction at each test location.	Revised 10.3.1.3. Need further USFS clarification/discussion
334	124	10.3.1.4	Topsoil	USFS requires topsoil segregation for entire construction corridor and other associated areas that are disturbed by construction activities and will require erosion control seeding on NFS lands.	Need USFS Clarification/Discussion
335	124	10.3.1.4	Topsoil	Topsoil segregation is request by the USFS in the construction ROW for all areas which will need revegetation due to disturbance.	Need USFS Clarification/Discussion
336	125	10.3.1.6	E&S	"*In addition to these general measures, Atlantic will develop and implement other additional site-specific measures, where warranted, to address land movement, surface erosion, backfill erosion, general soil stability when backfilling the trench, and restoring of the rights-of-way in steep slope areas. Atlantic is committed to employing BIC measures to protect the environment in steep slope areas."* Please list and describe these methods that Atlantic will develop. The USFS must review and approve BIC methods for any emergency sediment situation. The USFS recommends that ACP predict areas where there is increased potential for erosion and sedimentation risk. Once the worst case scenarios are established, ACP should develop a specific, detailed plan and provide these to the USFS for review and approval.	Need USFS Clarification/Discussion
337	125	10.3.1.6	Steep Slopes	"*The following lists some of the special design and construction mitigation measures that will be implemented during construction in steep slope areas :*" Clarify if the measures listed here refer to a hypothetical situation or to areas on the pipeline already known to be at risk.	Revised 10.3.1.6.

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338	125	10.3.1.7	Restoration	"*In these cases, all slopes within 100 feet of wetlands or waterbodies will be mulched at a rate of 3 tons per acre* ." Provide the source for the 3 tons/acre rate.	Reference source added to 10.3.1.7.
339	125, 126	10.3.1.7	Restoration	If mulch is necessary, do not use hay. Substitute clean straw, wood or paper fiber, coconut fiber, synthetic mulch, or other Forest Service-approved material that is not likely to contain seeds or viable parts of invasive plants.	Revised 10.3.1.7.
340	126	10.3.1.9	Restoration	"*In general, and in accordance with the Plan and Procedures, upland areas will have a fertilizer and pH supplement (i.e., lime) mixed in to the upper two inches of topsoil."* Atlantic should use the Order 1 level soil survey to confirm areas that will require lime and fertilizer applications and to determine application rates. If the soil samples obtained from the soil survey indicate that some areas have sufficient pH and/or available nutrients, lime and fertilizer wouldn't need to be applied. Applying lime and fertilizer to an area that does not require it for sufficient plant growth could be detrimental to that ecosystem.	Revised 10.3.1.9. Also, see response to comment 264.
341	126	10.3.1.9	Restoration	"*apply 150 pounds per acre of 10-20-20 (or similar) fertilizer;"* Fertilizer type and application rates should be chosen based on soil chemical data in map units sampled during the Order 1 Level soil survey. A blanket application of 1 type of fertilizer and application rate will not be accepted.	Revised 10.3.1.9.
342	126	10.3.1.9	Restoration	The USFS will require on NFS lands specific fertilizer and lime applications using the information in the Order 1 Soil Survey.	See response to comment 340.
343	127	10.3.1.9	Steep Slopes	"*Bonded fiber matrix (BFM), a type of hydromulch designed to control erosion on steep slopes, may also be used where appropriate. BFM slurry contains thermally processed wood fibers (approximately 80 percent), water (approximately 10 percent), and tackifiers and polymer-based binding agents that are quick to dry upon application."* Please reference and/or provide MSDS sheets on all substances used in this BFM and evaluate the risks associated with these materials for aquatics and other resources. Reduce or eliminate that risk in these sensitive areas by providing an alternative such as an organic based binder.	Reference to the bonded fiber matrix added to 10.3.1.9.
344	128, 130	10.3.1.9	Restoration	The MNF and GWNF have been developing a variety of seed mixes appropriate for various conditions expected to be found on the pipeline. Please incorporate the MNF's recommendations into final seed mix decisions. The proposed seed mix is not approved for use on MNF lands.	Revised 10.3.1.10.
345	130	10.3.1.9	Restoration	"*The following seed mixtures, application rates, and soil amendment recommendations are for Pocahontas County, West Virginia (Tables 10.3.1-2 and 10.3.1-3)."* These seed mixes have not been approved by the MNF and will not be utilized on MNF lands. MNF, GWJNF and ACP are working together to develop a seed mix with USFS approval.	Revised 10.3.1.10.

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346	131-137	10.3.1.9	Restoration	The USFS will provide a list of approved seed mixes (and other plants) for use during restoration and rehabilitation of the right-of-way. Consult with the USFS regarding that will reduce the color and texture contrast between the canopied forest on either side of the right-of-way and the herbaceous groundcover within the right-of-way. The color and texture of the vegetation for the approved seed mixes need to be taken into consideration.	Revised 10.3.1.10. Will need further consultation with USFS regarding specific application of proposed seed mixes.
347	133	Table 10.3.1-4, 1-5	Restoration	USFS will not allow the use of tall fescue due to its alleopathic properties and negative impacts to some wildlife species.	Revised 10.3.1.10.
348	133-146	Table 10.3.1-6	Restoration	The USFS will provide approved seed mixes for use on NFS lands. Additional consultation with the USFS will be required to identify native seed mixes for pollinator and other high priority species that could be used where and when appropriate.	Revised 10.3.1.10. Will need further consultation with USFS regarding specific application of proposed seed mixes.
349	134	10.3.1.4	Topsoil	Discuss how topsoil disturbance, segregation, and re-distribution methods will be implemented to prevent NNIS from spreading or from being introduced. Topsoil containing NNIS should be left undisturbed to the degree possible, be segregated from topsoil free of NNIS, and be both stockpiled and re-distributed so as not to further contaminate any new areas.	See Section 11, Non-Native Invasive Species Management Plan.
350	138	Table 10.3.1-6	Restoration	Fertilizer analysis used on NFS lands will have at least 20% Phosphorous (ex. 10-20-10, not 10-10-10). Fertilizer application rates will be based on site specific chemical analysis provided by the Order 1 Soil Survey.	Text added to 10.3.1.9 to indicate the types of fertilizer and lime recommended by USFS.
351	138	10.3.1.9	Restoration	"*Broadcast or hydroseeding at double the recommended seeding rates may be used in lieu of drilling."* In problematic areas, ACP will consult with USFS personnel and develop an alternative method to seed an area.	Revised 10.3.1.9. Will need further consultation with USFS regarding alternative seeding methods.
352	139 or 141	10.3.1.9 or 10.3.2	Restoration	The creation of a Visual Impact Reduction Plan, or some name that implies this, is needed and should be referenced in this section under Supplemental Plantings or under Additional Restoration Mitigation Measures.	New Section 20 - Visual Resources Plan added.
353	140	10.3.2	Restoration	The frequency or interval should be stated for the post-construction and post-disturbance monitoring of vegetation for the life-span of operations on the MNF.	Revised 10.4 to include qualitative and quantitate restoration monitoring, and monitoring frequencies.
354	141	10.3.2	Restoration	The frequency or interval should be stated for the post-construction and post-disturbance monitoring of vegetation for the life-span of operations on the GWNF.	See response to Comment 353.
355	142	10.3.4	Restoration	"Seeding of wetlands is not anticipated as wetlands are expected to naturally revegetate." Most areas in Virginia will naturally revegetate, the key is to supplement the disturbed area with desired species instead of potential non-native invasives. This is true for wetlands as well. USFS will specify seed mixes and/or shrub plantings to restore disturbed wetlands and riparian areas.	Revised 10.3.1.10.
356	142	10.3.4	Restoration	"*After revegetation, Atlantic anticipates no permanent impact on emergent wetland vegetation within the rights-of-way* ." Please provide justification for this statement (e.g., scientific literature, case studies, etc.).	Statement deleted.

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357	142	10.3.5	Restoration	Further clarify this section. There are many places along the pipeline where surface bedrock is exposed, particularly on steep slopes. What type of crushed rock, of what size classes, and stabilization methods are being proposed?	
358	143	10.4.2	Restoration	This section should include instructions about how the "feathered edges" and other measures to reduce impacts to scenery will be monitored and maintained. Include graphics about the desired appearance to be maintained in this section and/or a separate plan for reducing impacts to scenery, and include this in training for long-term right-of-way maintenance. Per the USFS's conversation with FERC, on NFS lands, the permanent right-of-way should not be cleared for the width of the right-of-way; the permanent right-of-way should be maintained in an herbaceous state for a 10-foot-wide corridor centered over the pipelines, consistent with procedures for wetlands, for the length of the entire right-of-way on both the MNF and GWNF. The remainder of the corridor should be replanted with shrubs or shallow-rooted trees as approved by the USFS.	New Section 20 added. See response to Comment 352.
359	147	11.4.1	Invasives	Avoid soil disturbance in areas with NNIS infestations, where possible.	Revised 11.4.2.2.
360	147	11.4.2.1 Pre- Treatment	Restoration	All herbicides and/or pesticides must be applied following label directions.	Revised 11.4.2.1
361	147	11.4.2.1	Invasives	"pre-treatment of non-native invasive plant infestations may be conducted if it will aid in controlling the spread of non- native invasive plant species during construction." Please state the criteria that will be used to determine whether pre-treatment will be beneficial. In general, the USFS will require pre-treatment of any species that has not yet gone to seed for the year, that has a possibility of producing seed prior to removal during construction. "Herbicide treatment…will be coordinated, as necessary, with the USFS." All herbicide treatment on USFS lands must be coordinated with USFS prior to implementation. "Treatment may be restricted in areas that are not readily accessible…or where there are documented occurrences of protected species." Areas where this is the case will need to be evaluated on a case by case basis with USFS staff. The USFS will make the final determination on treatment of these sites. Only herbicides and application methods approved by the USFS may be used on NFS lands, and then only with permission and coordination.	Revised 11.4.2.1.

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362	148 150	11.4.2.1 (and overall) 11.5.1	Invasives	We applaud the recognition that herbicides will be necessary to control NNIPs. However, when the COM Plan states: "Atlantic will obtain permission from the USFS prior to applications of herbicides within the right-of-way or other work areas" this will require compliance with National Environmental Policy Act (NEPA). No herbicide can be applied without environmental analysis and an appropriate decision document. From the very beginning of this process, the USFS has encouraged ACP to include this analysis in the EIS for the pipeline and document the use of herbicide in the Record of Decision. This can be done in a separate process, but that seems inefficient. We take this opportunity once again to encourage disclosure of the effects of the use of herbicides on vegetation, aquatics, wildlife, and human health in the EIS now so that an appropriate decision can be made on the use of herbicides.	See Comment 279.
363	149	11.4.2.2	SWPPP	Wastewater from washing stations needs to be filtered or contained so that it does not transport NNIS seeds or plant parts offsite, and also so that it does not contaminate soil, groundwater, or surface water. If any hydro or petro chemicals are present in the wash water, it shall not be released on USFS lands but rather taken to an approved (WV/VA DEP) waste disposal site.	Revised 11.4.2.2.
			Invasives	Please clarify how topsoil that contains NNIS seeds will be segregated from surrounding soil when it is buried and when it is excavated, to prevent seed from contaminating the area around the burial site. All use of hay on MNF lands is prohibited.	Revised 11.4.2.2. No topsoil segregation in NNIS-infested areas. Reference to hay deleted.
364	149	11.4.2.2	Topsoil	"*Topsoil will be segregated and buried in all infested areas*" Please explain what exactly is meant by segregated and buried.	Revised 11.4.2.2. No topsoil segregation in NNIS-infested areas.
365	149	11.4.2.3	Invasives	"*In either case, ongoing revegetation and monitoring efforts will ensure adequate vegetative cover to discourage the establishment of non-native invasive plant species."* Ensuring that there is native vegetative cover does not ensure that NNIS will not invade the area. Many species of NNIS are so competitive because they can thrive and spread in shaded environments, grow to shade out native species, and create soil environments that are not conducive to native species, thereby dominating a given area. If ACP has to wait in frozen or non-frozen soil conditions to restore an area, there is a risk that an NNIS invasion could occur. Provide a statement that addresses a year round strategy for combating NNIS.	The weed control measures proposed for before, during and after construction is a standard approach on pipeline rights-of-way across the country, including federal lands, and represents a year-round strategy. Needs further USFS clarification/discussion.

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366	150	11.4.2.3	Restoration	"Post-construction herbicide application will be conducted prior to seed maturation where possible and where necessary…and will be coordinated with USFS as applicable." Please convey results of post-construction monitoring to USFS staff so as to coordinate on post-construction treatment. All new and re-emerging infestations in the construction ROW should be treated prior to first seed set. Areas where infestations cannot be treated prior to seed maturation should be managed on a case by case basis after USFS review and approval. All herbicide use on NFS lands need to be coordinated with USFS. "Following the treatment, a seeding program will be implemented…" Clarify if this is in addition to the revegetation and restoration seeding described in the Restoration and Rehabilitation Plan? Invasive species treatment and restoration seeding would be implemented until the USFS determines that it is no longer necessary.	Acknowledged. Section 11 makes reference to coordination/consultation with USFS throughout the section. The need for supplemental seeding after weed treatment will be determined in consultation with USFS.
367	150	11.4.2.3	Correction	Para. 1 – the reference to Section 7.0 seems out of place here.	Revised 11.4.2.3.
368	150	11.4.2.4	Monitoring	"*Following successful revegetation, Atlantic's operations staff will monitor and treat non-native invasive plant species as part of its normal operations and maintenance activities in accordance with applicable USFS regulations* ." ACP will monitor and treat NNIS for the life of the project. Other details for monitoring and treatment will be determined by the USFS. Please continue consultation.	Need USFS Clarification/Discussion
369	150	11.5.1 Herbicide Application and Handling	Maintenance	Include the statement the herbicide use will follow label direction and that the USFS will be consulted prior to application	Revised 11.4.2.1.
370	150 and 151	11.5.	Maintenance	A term and condition to the special use permit would prohibit ANY use of herbicides/pesticides without prior written approval. If the Forests are to authorize such use of herbicides, NEPA would be required.	Noted. No change required.
371	151	11.5.2	Maintenance	"Hand application methods…will be used to treat occurrences of non-native invasive species… Herbicides will not be ground-applied within 60 feet of any known threatened, endangered, proposed, or sensitive plant." Please clarify what is meant by "ground-applied", or re-phrase, as no herbicide should be applied directly to the ground. Please also coordinate with the USFS on treatment methods in areas with known TES plants. There are methods to treat NNIS in close proximity to sensitive plant species, and leaving populations of NNIS untouched may pose just as much or more risk to TES plants than carefully controlled herbicide application.	Revised 11.4.2.1.
372	153	12.3	SWPPP	"*The Spill Coordinator will be responsible for completing a Spill Report Form (Attachment K) within 24 hours of the occurrence of a spill, regardless of the size of the spill* ." The USFS must be notified of spills immediately. Continue consultation with the FS to outline the reporting procedures.	Revised 12.3

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373	156	12.4.1	SWPPP	"*Contractors will keep a spill kit onsite and on all equipment in case of machinery leaks or spills. If a spill kit is used, it will be replaced within 24 hours* ." The MNF would require that more than 1 spill kit be kept on site; at least two spill kits must be kept on site. If one is used it should be replaced within 24 hours.	Revised 12.4.1.
374	158	12.5	SWPPP	*"If necessary, an Emergency Response Contractor will be secured for large spills to further contain and clean up the spill* ." Atlantic should preemptively have a contract with an Emergency Response Contractor. Please ensure that a plan is in place for spills. Submit the plan to the USFS for review and approval.	Revised 12.5.
375	158	12.6	SWPPP	"*Atlantic's environmental team will report the spill to the MNF or GWNF, as appropriate, as well as the applicable state regulatory agencies if the spill meets or exceeds a reportable threshold. Table 12.6-1 lists the Federal and State/Commonwealth agencies that would be contacted if a spill meets or exceeds a reportable threshold* ." Any and all spills on USFS lands, regardless of whether they meet a 'reportable threshold' will be reported to the MNF or GWJNF. Consult with the USFS for reporting requirements.	Revised 12.6
376	172	15.0	Correction	Statement that "Information on threatened and endangered plants and animals as well as USFS species of concern is contained within the Biological Evaluation" is incorrect. T&E species are in the BA, FS Sensitive species are addressed in the BE. Mitigation measures identified in the BA, BE, and Biological section of the EIS need to be incorporated into the COM plan.	Need USFS Clarification/Discussion
377	173	16.1	E&S	"*Fugitive dust emissions will be greater during dry periods and in areas of fine-textured soils subject to surface activity."* Dominion should be able to locate areas at high risk for fugitive dust from the Order 1 Soil Survey information and precipitation patterns across the pipeline ROW.	Dominion believes that it's proposed dust suppression measures will mitigate fugitive dust emissions.
378	173	16.1	E&S	"*The ACP will employ proven BMPs to control and limit releases of fugitive dust, such as the application of water to disturbed surfaces or roads* ." ACP states they will employ proven BMPs to control dust. One is listed here. Please list and cite all BMPs ACP intends to use to control fugitive dust. Water withdrawal on the MNF must be approved and subject to appropriate permits. Water withdrawal on the GWNF is prohibited. Please develop a dust abatement plan and submit it to the USFS for review and approval.	Need USFS Clarification/Discussion
379	174	16.4.1	E&S	"*Other, locally-approved, dust suppression agents (e.g., wetting with calcium chloride) may be used in addition or in lieu of water* ." Please provide a list of any and all dust suppression agents, along with MSDS sheets to the USFS for review. Only approved dust suppression agents will be used on NFS lands.	Revised 16.4.1 to eliminate agents other than water.

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380	177	17.4	Safety	Second bullet – add ….and the general public…… after hiking, hunting or fishing organizations…… Third bullet – add that ACP will post temporary signs on forest trails at and near forest roads used as construction access roads. Fifth bullet – add that ACP will post temporary signs informing road users and trail users of any…….. Seventh bullet – add that all signage will be developed in consultation with the Forest public affairs specialists and, trails specialists.	Revised 17.4
381	177	17.4	Safety	Add to the bullet list one for boundary marking with a warning not to enter the project area – for the safety of the public, safety of construction employees, and security of the project site. A special warning may need to be added in the vicinity of planned blasting. There are dispersed recreationists and others who go off-trail through the general forest area, and the current list of public notifications and warnings do not address these national forest visitors or USFS employees, contractors, and volunteers.	Revised 17.4
382	178	18.1	Blocking	Reword entire first paragraph. "The purpose of this OHV Blocking Plan (Blocking Plan is to prevent OHV travel along the proposed pipeline, proposed access roads, and onto adjacent or nearby USFS lands. OHV travel along the proposed pipeline and access roads could lead to unauthorized entrance to restricted areas, could damage sensitive biological and cultural resources, could create or exacerbate erosion, could impede right-of-way restoration, and could compromise the integrity of the right-of-way. Consequently, both of the Forests and the pipeline operator have an interest in preventing unauthorized OHV use along the proposed pipeline and its access roads.	Revised 18.1.
383	178	18.1	Blocking	"*Examples of methods that may be used include boulders, stumps, berms, gates, visual marking, downed woody debris, visual screening, and rough road access* ." The USFS also implements some of these methods (namely boulders, stumps, berms, gates, debris, rough road access), but in some situations they still do not work in denying access, especially to UTV/ATVs. Please describe what visual screening is. Also, please explain how frequently areas will be monitored for illegal OHV use. Provide a plan for what ACP plans to do if the methods described above are not effective and illegal OHV use is still rampant, as the NF has seen on many occasions including existing pipeline ROWs on federal lands.	Need USFS Clarification/Discussion
384	178	18.2	Blocking	"*While such unauthorized use is difficult to stop entirely, measures to discourage OHV use of the right-of-way are appropriate* ." In instances where ACP Dominion cannot stop illegal OHV use, and it leads to degradation of natural resources on USFS land (namely, soil quality degradation and erosion), ACP will be responsible for damages to natural resources on NFS lands.	Need USFS Clarification/Discussion

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385	178	18.3	Blocking	Change the first sentence to: Blocking measures will be considered at all USFS roads and trails crossed by the pipeline and its access roads, and other locations determined by the AO to be likely access points for OHVs to travel along the pipeline or associated access roads. Add a footnote to Table 18.3-1 that this list of Potential OHV Blocking Locations is the best estimate at this time, and is known to be incomplete.	Revised 18.3.
386	179	18.4	Blocking	For gates, berms, and other features installed on USFS roads and trails to block OHV access to the right-of-way, a means of egress for wheelchairs must be provided in order to comply with Section 504 of the Rehabilitation Act of 1973. When foot travel is welcomed or encouraged beyond a restriction device, a minimum of 36 inches of clear passage shall be available around that device to ensure that a person who uses a wheelchair can also participate in the encouraged opportunity behind the restriction.	Need USFS Clarification/Discussion
387	179	18.4	Process	Change DETERMINED by the AO and the Project EI, to APPROVED by the AO.	Revised 18.4
388	180	18.5	Blocking	Change "two full seasons following installation of the blocking measures" to "two full years following completion of construction activities on the specific spread. In the second paragraph, add: …….may provide evidence of unauthorized OHV use along the pipeline OR ITS ACCESS ROADS.	Revised 18.5
389	180	18.5	Operation	"*Regular aerial patrols will also note changed conditions on the right-of-way, such as the appearance of vehicle tracks, that may provide evidence of unauthorized OHV use along the pipeline* ." Please define "regular" to describe how often will these aerial patrols will take place.	Added footnote to 18.5.
390	180	19.0	Waterbody	Atlantic will install stream crossings in accordance with the FERC Procedures and USFS Forest Plan standards and guidelines.	Revised 19.0
391	180-183	19.2-19.6	Monitoring	Macroinvertebrate sampling has been done as well. Describe that monitoring effort and post construction monitoring proposed and macro standards, in addition to the turbidity discussion.	Need USFS Clarification/Discussion
392	181	19.4	Monitoring	The Water Quality monitoring plan only includes turbidity monitoring and only "at all stream crossings that are state- designated as either coldwater or significant coolwater or warmwater fisheries" for 4 days following construction. This does not address chronic impacts? Downstream turbidity monitoring during and following construction is good, but Monitoring needs to include the physical and biological stream condition post construction for a number of years. It also needs to include streams other than those designated as cold water or significant cool and warm water fisheries.	Comment Noted. The Geohazards Report will address slip potential at a site-specific level.
393			Scenery	Please consult with the USFS regarding specific measures to reduce impacts to scenery. A separate appendix is needed that provides pre-construction and post-construction direction in order to meet FW standards and help meet the Scenic Integrity Objectives.	Added new Section 20 for visual resources. Further USFS consultation anticipated.

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394	All	Appendices	Correction	It would be helpful if each appendix contains an introductory statement that it needs to be used in conjunction with the specific coordinating section of the COM Plan (for Example, Appendix E is to be used in conjunction with Section 5 of the COM Plan).	
395	COM Plan pg. 5, and Attachment A	2.1.1.2, and Attachment A	E&S	Paragraph 2 references ALIGNMENT SHEETS, Attachment A. These current Alignment Sheets are inadequate and difficult to read and use. They should be revised to show all USFS ownership explicitly and easily. The section on each Alignment Sheet labeled "Property Ownership" does not show ownership. It shows Parcel ID number. This is not adequate for this review, nor is it adequate for use by the USFS AO, inspectors, monitors, decision-makers, etc. Satellite imagery base layer is difficult to read and obscures vital information. They need to emphasize the mileposts on all views, graphs, etc. on each sheet. Alignment Sheets need to include Road Numbers (US-##, VA-##, SR-##, FR-##, etc. Alignment Sheets need to show and identify all Forest Trails (FT-##) crossed by and adjacent to the proposal pipeline.	The alignments sheets will be updated to include everything here except landowner names, which can not be included in public documents.
396	Attachment A, first diagram, "AP-1 (Federal Lands Only)	AP-1 (Federal Lands Only), Typical construction Right- Of-Way Non- Agricultural Areas		Diagram shows a dimension labeled "12" MAX" on the left side of the top of the pipeline trench, and between the pipeline trench and the "DITCH SPOIL" pile, with arrows indicating that this is a vertical dimension. It would be helpful if the arrows were rotated 90 degrees to indicate a horizontal dimension, and the label changed to "12" MIN" to indicate that a 12" minimum spacing was required between the top of the trench and the edge of the Ditch Spoil pile to keep Ditch Spoil material from sloughing into the open trench. Or, if this is designed to show that up to 12" of topsoil will be stripped off and segregated (clarify if it should it be 12" max or min). Change wording of "Topsoil Stripping" to "Topsoil Segregation."	Need USFS Clarification/Discussion
397	Attachment A	Attachment A	Workspace	Add a sheet showing AP-1 (NFS lands only) with the addition of topsoil segregation , showing width and location of topsoil placement area.	Need USFS Clarification/Discussion

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398		Attachment A	Workspace	The configuration "Atlantic Coast Pipeline and Supply Header Projects Cut and Fill Construction" contains this Note: "1. TWO-TONE THE RIGHT OF WAY TO LIMIT THE NEED FOR DEEP CUTS AND ADDITIONAL RIGHT OF WAY ON STEEP SOILS." Provide a detailed description of the Two Tone configuration and how it differs from standard working side/spoil side configuration. A FERC DEIS displays a Typical Two-Tone Construction Right-of-Way (FIGURE: 2.3.2-2, page 2-22, FERC, 2006b, *Draft Environmental Impact Statement for the Carthage to Perryville Project* , May 26. Available at http://www.ferc.gov/industries/gas/enviro/eis/2006/05-26-06.asp.). The FERC DEIS Typical Two Tone has a different configuration from the ACP Two Tone configuration. Explain the reason for the difference. The FERC DEIS states, "The two-tone construction technique would likely require extra workspace areas to accommodate the additional volumes of fill material generated by this technique (see Section 3.8). Following pipeline installation and backfill of the trench, excavated material would be placed back in the cut and compacted to restore the approximate original contours." Provide site specific locations where ACP would use the two tone method on NFS lands, including every location where ATWS would be needed. Provide a set of profiles (cross-sections) with dimensions (feet) based on ground survey for each two tone segment on each Alignment Sheet in Attachment B. Another Note states, "4. USE BACKHOE TO ASSIST BULLDOZERS WITH REPLACING CUTS. RECONTOUR TO MAXIMUM 1:3 GRADE UNLESS OTHERWISE DIRECTED BY GEOTECHNICAL ENGINEER." Clarify if this note refers to recontouring cuts to a maximum 1:3 or maximum 3:1. If it is meant to recontour to 3 horizontal to 1 vertical, justify the use of such low-angle to recontour a vertical cut as deep into the mountainside as shown in two tone configuration in Attachment A. Since Note 1 justifies the two tone method for use on steep slopes, explain the circumstances when "recontouring" a cut into a 3 horizontal to 1 vertical slope would be justified for the two tone	Need USFS Clarification/Discussion
399	Pgs. 198 and 199 of 344.	Attachment A, Alignment Sheets	Correction	Alignment Sheets show orange-dotted line as Appalachian Trail. Needs to be changed to Appalachian National Scenic Trail.	Alignment sheets (Attachment B) have been updated.
400		Appendices A and B		These appendices are referenced in Section 11 as describing how RFSS plants will be treated in areas with NNIS, but Appendices A and B did not appear to be contained in this document. Upon reviewing Appendix J it appears that RFSS plants and treatment methods for NNIS nearby are described there. As mentioned above, please coordinate on a case by case basis with all NNIS treatments near RFSS and other sensitive areas.	Acknowledged.
401		Attachment C SAIPR	Correction	Standards, geologic information and compliance only refers to WV.	Attachment C has been revised.

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Comment No.	**Page No.**	**Section No.**	**Subject**	**U.S. Forest Service Comment**	**Status**
402		Attachment C	Steep Slopes	Landslides (or slips) are geologic hazards. A geologist is essential to every phase of Slip Avoidance, Identification, Prevention, and Remediation. The Slip Avoidance, Identification, Prevention, and Remediation - Policy and Procedure (SAIPR) of August 2015 says a DTI Project Team will implement the procedures but does not say what professionals are on the Team. Moreover, the procedures focus on a few factors, such as slope inclination, which while important, are not sufficient to characterize the many geologic factors (such as different geologic materials, geologic structures, and geologic processes) relevant to assessing natural and project-induced landslide hazards. The SAIPR Appendix A contains a Slip Risk Assessment Matrix with highly questionable assessment of hazards. First, the hazard is titled "Probability of additional slope movement" implying that the only hazard considered is from existing landslides. Secondly, high, medium and hazard classification has erroneous and incomprehensible elements. A slope 22° (40%) or flatter with no bedrock outcrops visible is classified as low hazard. In contrast, a slope steeper than 30° (58%) with bedrock outcrops prevalent or covering a sizeable portion of the slope is classified as high hazard. Debris slides and resulting debris flows are major landslide hazards on NFS lands. Many published geologic reports document debris slide/debris flows occurrences in Virginia and West Virginia. Debris slide/debris flows originate in colluvium-covered steep slopes. So, as result, a slope steeper than 30° (58%) with no bedrock outcrops and covered with colluvium would be classified as a high hazard. But this high hazard is the opposite of SAIPR high hazard. The SAIPR of August 2015 appears to be a document developed by engineers trying to assess geologic hazards with little input if any from geologists experienced in landslide avoidance, identification, prevention, and remediation. Revise SAIPR to state that a geologist experienced in landslide avoidance, identification, prevention, and remediation will be a core member of the DTI Project Team implementing the procedures. Provide a major update or supplement of the SAIPR of August 2015 that will	The "SAIPR" has been revised and renamed the "Slope Stability Policy and Procedure" (Attachment C), which applies to Virginia as well as West Virginia. This document is a policy and procedure document developed for all Dominion projects and is not intended to function as a project specific plan. As such, it has not been revised to incorporate the USFS' project specific comments. Many of the comments are appropriately covered in the Geohazard Program and the associated project specific reports and plans. This Geohazard Program has been executed by a team of professional engineers and geologists with experience in landslide avoidance, identification, prevention and remediation. The USFS reviewed and approved the qualifications of the professionals conducting the Geohazard Program. A project specific Geohazard Analysis Report was prepared and site specific measures are under design to demonstrate due diligence efforts recognizing project-induced landslide hazards and other geologic hazards.
403	2	Attachment C: Slip Avoidance Policy and Procedure 1.0	Correction	"*This policy and procedure will become effective on August 10, 2015* " Please update the effective date to reflect current scheduling.	A revised Attachment C is attached.
404	5	Attachment C: Slip Avoidance Policy and Procedure 2.1	Steep Slopes	"*Slips are plentiful and occur naturally throughout West Virginia* ." Slips can and do occur naturally throughout West Virginia due to steep slopes, geology, soil type, and heavy rainfall. Human-caused disturbance increases the chance of a landslide or slip to occur.	Acknowledged.
405	5	Attachment C: Slip Avoidance Policy and Procedure 2.1	Correction	"*as indicated in Figure 1, which shows a USGS landslide map of the conterminous United States, and Figure 2, which shows a larger scale map of West Virginia, with the locations having the highest risk of landslides shown in red* ." Please provide a complete citation of the USGS information presented here. Specifically, please provide the date of creation and location (i.e., website, scientific article) so the USFS can review the data used to create this map.	The citation will be provided at a later date.

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406	6	Attachment C: Slip Avoidance Policy and Procedure 2.1	Steep Slopes	"*Bedrock from the Conemaugh Group may be present in the deeper valleys. In addition, large portions of West Virginia are extensively underlain by deep mining operations and strip mines* ." This really isn't applicable to the pipeline ROW that crosses the MNF and GWJNF. Deep mining operations more frequently result in subsidence, not landslides.	A revised Attachment C is attached.
407	7	Attachment C: Slip Avoidance Policy and Procedure 2.3	Blasting	"*Human Activities* " Add blasting and previous disturbance (historical disturbance) to the list of human activities that can cause a landslide.	A revised Attachment C is attached.
408	7	Attachment C: Slip Avoidance Policy and Procedure 2.3	Correction	"*Natural Factors* " Please also include geology type, geology tilt, soil minerology (shrink/swell clays).	A revised Attachment C is attached.
409	14	Attachment C: Slip Avoidance Policy and Procedure 3.2.2		"*No particular method is to be specified, but the DTI Project Team will select an appropriate method based on the size of the project* ." Based on the size of this project, data at a finer scale than 1:24,000 must be utilized for accuracy. However, throughout this document, ACP references using data at the 1:24,000 or coarser scale.	A revised Attachment C is attached.
410	14	Attachment C: Slip Avoidance Policy and Procedure 3.2.3		*"Therefore, soil surveys provide a broad overview of soil conditions but are not designed for site-specific evaluations."* NRCS Web Soil Survey and associated soil surveys are not suitable for site-specific evaluations, nor are they acceptable for use in the design and installation of this pipeline.	A revised Attachment C is attached.
411	11	Attachment C: Slip Avoidance Policy and Procedure 3.1	Steep Slopes	"*During preliminary route layout, care must be taken to traverse slopes perpendicular to topographic contours, and to avoid traversing slopes greater than 30 degrees (58 percent) to the maximum extent practicable* ." The MNF forest plan states that mechanical operations on slopes 40-50% should be limited, and operations on slopes >50% are prohibited without USFS interdisciplinary team recommendations and line officer approval due to the possibility of soil degradation via erosion and/or landslides. The MNF has on-the-ground data that shows slip potential is high at slopes of 40%.	A revised Attachment C is attached.
412	14	Attach C 3.2.3		Describe how the Order 1 Soil Survey would be used along the corridor crossing NFS lands This is site specific Information, which is needed for their assessment, as said in this section.	A revised Attachment C is attached.
413	14	Attachment C: Slip Avoidance Policy and Procedure 3.2.5	Steep Slopes	"*high risk for slips including; slopes greater than 30 degrees (58 percent)"* Slopes at high risk on MNF lands start at 15% for slippage potential due to clay mineralogy of certain soil types. Slopes of 58% are so susceptible to risk that the MNF generally prohibits mechanical operation of any kind on these slopes.	A revised Attachment C is attached.

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414	15	Attachment C: Slip Avoidance Policy and Procedure 3.3	Correction	*"In particular, the following information are to be recorded with a hand-held GPS unit or other suitable mapping device, field notes, and photographs: existing slips, hummocky topography, head scarps, toe bulges, seeps and springs, tilted utility poles and fence posts, misaligned fences or guardrails, tilted trees, curved tree trunks, bedrock outcrops, sink holes, and mine spoil* ." All of these environmental factors are good to note when evaluating a landscape for potential slip hazards. Depth to bedrock, tilt of bedrock, and soil type/minerology can provide valuable insight when attempting to predict areas at high risk for slope failures. These features were characterized throughout the pipeline ROW during the Order 1 Level Soil Survey and the Geohazard Assessment and should be referenced here.	A revised Attachment C is attached.
415	15	Attachment C: Slip Avoidance Policy and Procedure 3.3	Steep Slopes	"*Based on the project conditions, the field reconnaissance can be limited to those areas identified during the desktop study as having increased risk of slips* ." Using the desktop analysis (with data too coarse for the scale of the pipeline ROW) to find areas at high risk for landslides is ineffective and existing survey data already exists on NFS lands for the Geohazard survey. There is not data readily available at the scale necessary for this project. ACP must collect the information at the appropriate scale by themselves or via contractor. Given that the Order 1 Level Soil Survey has already been completed, this comment does not apply to the soil survey.	See Comment 64.
416	17	Attachment C: Slip Avoidance Policy and Procedure 3.5	Steep Slopes	"*Adjust the pipeline route through the slip hazard to minimize the consequence if slope failure were to occur. For instance, if a cross slope cannot be avoided, route the pipeline on the upslope side of the ROW and/or bury the pipe within bedrock to minimize risk to the pipeline integrity if a slip were to occur.* " Please explain how this approach would protect any other resources such as soil, water, and other environmental resources.	A revised Attachment C is attached.
417	17	Attachment C: Slip Avoidance Policy and Procedure 3.5	HDD	"*In rare cases, Horizontal Directional Drill (HDD) under the hazard. However, it is not expected that HDD will be a viable options in most cases due to site constraints, such as steep terrain, that make HDD infeasible. Additionally, the increased impacts resulting from larger ground disturbance associated with HDD may increase the risk of slips* ." As this method directly results in more ground disturbance, ACP must provide details on the method as well as the location where it will be utilized. Please submit all details of the proposed method to the USFS for review and approval.	A revised Attachment C is attached.

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418	17	Attachment C: Slip Avoidance Policy and Procedure 4.0	Steep Slopes	*"Slip-prone areas were identified through the slip desktop study and field reconnaissance during the pipeline route selection phase. Additionally, preventative measures for high-risk slip areas were assigned."* 1. Slip prone areas should be identified using field reconnaissance, as the scale of available data for the area is at an inappropriate scale for the size of this project. 2. Once all slip prone areas are identified using field reconnaissance, then these should be assigned preventative measures for slip prevention.	The Geohazard Report will include the results of the field review, and discuss preventative measures for slip prevention.
419	18	Attachment C: Slip Avoidance Policy and Procedure 4.1	Steep Slopes	"*Slip areas having high risk, as determined in Section 2.4; Existing slips; and, Slopes steeper than 30 degrees (58 percent)."* Consult with the USFS to determine methods that would produce adequate results that would be found acceptable to the USFS.	Acknowledged.
420	18	Attachment C: Slip Avoidance Policy and Procedure 4.4	Steep Slopes	*"Project-specific engineered details and specifications must be developed for those slip-prone areas requiring engineered preventative measures, as identified in Section 3.5* ." The information in the Order 1 Soil Survey that ACP conducted in the pipeline ROW should provide complimentary information needed to adequately assess all areas of the pipeline ROW for slip potential.	Comment Noted. The Geohazards Report will address slip potential at a site-specific level.
421	19	Attachment C: Slip Avoidance Policy and Procedure 4.4	E&S	"*Continued erosion of the soft exposed bedrock should be anticipated* ." Please explain the steps that will be taken to minimize this erosion.	Refer to Section 8 for erosion control measures.
422	19	Attachment C: Slip Avoidance Policy and Procedure 4.4	Steep Slopes	"*A common slip repair approach for slopes up to 30 degrees (58 percent) includes removal of the failed soil mass and reconstruction of the slope by cutting level benches into competent soil or rock beneath the failure plane, installing subsurface drainage, and placing compacted backfill* ." Please explain the subsurface drainage including type, how it would be used, and more importantly where it would be discharged and how that site will be monitored for sediment and erosion control.	Refer to Comment 421. For this type of repair, a site specific plan would be designed to stabilize and repair the slip location. The plan would include subsurface drainage type, how this drainage would be used, and where the drainage would discharge.
423	20	Attachment C: Slip Avoidance Policy and Procedure 4.4	Steep Slopes	"*Chemical Stabilization of Backfill Chemical modifiers, such as cement and lime, have successfully been used to dry cohesive soils that are wetter than optimum moisture content, and are often used to extend the construction season. When used at higher concentrations, these soils can exhibit increased strength properties, which can provide benefit for slip stabilization on slopes up to 30 degrees (58 percent) or greater* ." This type of treatment would completely alter the soil material in the ROW and could potentially change site conditions outside the pipeline ROW through alkaline run-off. This method could only be used in dire situations and would require FS input and approval. Please adjust the COM plan accordingly.	Atlantic agrees to discuss with and receive FS approval before any soil modifiers are used.

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424	22	Attachment C: Slip Avoidance Policy and Procedure 4.4	E&S	"*Potential erosion problem areas, including but not limited to areas with 30% slopes or greater, will be protected by silt fence and permanent slope breakers."* This sentence is confusing. Please reword to indicate that silt fence and permanent slopes breakers may be needed on all ranges of slope depending on the situation and the resources at risk.	See Comment 402.
425	26	Attachment C: Slip Avoidance Policy and Procedure 6.2	Steep Slopes	*Table 2: Notify WVDEP if required Immediately* If any slips (regardless of slip size) occur on MNF lands or could impact resources on MNF lands, the MNF must be notified immediately.	Acknowledged.
426	27	Attachment C: Slip Avoidance Policy and Procedure 6.2.4	Steep Slopes	*"Within ten (10) business days of receiving the slip data form, DTI Engineering and GEBS will evaluate whether the slip repair is to be field-directed or engineering-directed,"* Please explain the difference between engineering and field-directed repair. For instance- please offer an example of when each would be used.	Field directed repairs are those which can be ascertained in the field by Environmental Inspectors. Engineering-directed repairs are those which require additional field study and possible geotechnical investigation (e.g. borings, piezometers) which lead to an engineered design solution.
427	30	Attachment C: Slip Avoidance Policy and Procedure 8.0	Steep Slopes	"*If it is determined that a slip is caused by the actions of a third party and not related to pipeline construction or activities by DTI, the DTI Engineering Team or Operations will contact the DTI Land, Lease, and ROW group to make notification to the third party of the slip."* Identify if a slip caused by ROW misuse (i.e., heavy illegal 4-wheeler or ATV traffic) would be grouped under this definition, and if so, ACP would be responsible for repairing/mitigating the damage including any slides/slips.	Acknowledged.
428	31	Appendix A	Steep Slopes	This decision matrix needs further work. The main problem is that the slopes that ACP considers 'steep' are excessively steep by MNF standards based on on-the-ground data. Please reconcile this information in the COM plan to be consistent with USFS standards for steep slopes. ACP believes that slopes at 40% are low risk- however the MNF has documentation to show that starting at 30% slope the risk of slope failure is very high, and slopes greater than 50% have an extreme risk of failure.	See Comment 402.
429		Attach D Winter Constr. Plan 3.0	Training	USFS Permits for ACP must include specific stipulations for winter construction and road use to be approved for inclusion in Company and Contractor training sessions.	USFS permit requirements which include specific requirements for winter construction and road use will be included in ACP's training programs.
430	1	Attachment D – Winter Construction Plan, 2.0	E&S	The direction regarding when to employ the Winter Construction Plan's best management practices, "under frozen soil conditions" based on "soil stability" is too vague. Provide additional parameters or criteria needed to guide how to assess this. For example, the duration or depth of the frozen state of soil, slope, and level of soil saturation prior to it becoming frozen should be considered. Describe any physical or scientific method used to assess soil stability? Clarify whether there a minimum amount of time the plan would remain in place once it is started (e.g., 24 hours, 48 hours, etc.). During periods where the soil fluctuates back and forth from frozen to thawed, would the Winter Construction Plan remain in place or would it start and stop, driven by the soil temperature?	The Winter Construction Plan contains criteria for when its BMPs will be implemented. These criteria allow for the Environmental Inspector's judgement to be applied in determining how best to implement the Plan.

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431	2	Attachment D, 3.0	Training	Training – Since the draft timeline for beginning construction is in the spring 2017, it might be prudent to provide *refresher training* regarding the Winter Construction Plan to employees in the late fall or early winter.	Initial Winter Construction training will be held in the fall of 2017 at the beginning of the revised construction period.
432	2	Attachment D, 4.0	E&S	Snow Removal – this section describes how snow will be moved and stockpiled to thaw at a later time, and the gaps that will be provided for drainage off the right-of-way and at drainage crossings. Describe who would be responsible for assessing the locations and sizes of these gaps and explain what criteria would be used. Too few and/or too small gaps may lead to flooding/erosion within steeper portions of the right-of-way, and too few that are too large may lead to erosion outside of the right-of-way.	The EI will determine on a site specific basis the location and sizes of gaps between any snow piles.
433	Attach D	Winter Constr. Plan 5.0	E&S	Explain the factors used in determining "Frozen soil conditions" for winter construction operations.	See Comment 433.
434	Attach D	Winter Constr. Plan 13.0	E&S	Explain "construction activities required during Spring thaw conditions."	Revised 2.1.9.
435		Attachment F	Access Road	Access road improvement maps are "to be provided at a later date." The USFS requires these documents for the effects analysis, which must be completed prior to any decision.	Haul Plan to be provided at a later date.
436	Attach I	E-S Details	E&S	Include site specific applications of seeding and erosion control treatments for erosion and sediment control.	Site-specific seed mixes will be included on the alignment sheets.
437		Attachment J	Invasives	The NNIS list includes Commelina communis. Persecaria longiseta, Rumex crispus ss. crispus, Lysimachia nummularia, and Rubus phoenicolasius. These species are not considered high priority for treatment and should only be treated if other herbicide work is going on in the area. ACP will coordinate with the USFS before treating NNIS.	As stated in the COM Plan, Dominion will coordinate with FS before treating invasives.
438	1	Blasting Plan 2.0 Purpose	Blasting	*"Based on an analysis of the Natural Resource Conservation Service's Soil Survey Geographic Database, approximately 26 percent (155.8 miles) of the proposed ACP and SHP pipeline routes will cross areas with bedrock at depths of less than 60 inches."* Order 1 Soil Survey data will provide more accurate site specific information regarding depth to bedrock.	Depth-to-bedrock estimates will be included in the GeoHazard Program for USFS lands, which is expected to be submitted to the USFS in March, 2017.
439	1	Blasting Plan 2.0 Purpose	Blasting	"*More than half (90.1 miles) of this bedrock are considered paralithic (soft) and may not require blasting during construction. The remaining areas will cross soils with a lithic contact (hard bedrock) within 60 inches of the surface that may require blasting or other special construction techniques during installation of the proposed pipelines* ." Describe blasting procedures on steep slopes and describe the equipment that would be used?	See response to Comment 120.
440	1	Blasting Plan 3.0 General Requirements	Blasting	"*Blasting for grade or trench excavation will be used where deemed necessary by the Contractor, and approved by an Atlantic or DTI representative, after examination of the site* ." Approval will also be required by USFS Personnel when on NFS lands.	Need USFS Clarification/Discussion

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441	1	Blasting Plan 3.0 General Requirements	Blasting	"*To the extent practical on USFS lands, rock trenching will be accomplished using mechanical means such as rippers, rock hammers, or John Henry drills."* According to SW07, wheeled and/or tracked motorized equipment is not permitted on slopes greater than 50% without USFS interdisciplinary team recommendations and line officer/AO approval. Explain how ACP would accomplish trenching/blasting on steep slopes while maintaining slope stability.	See response to Comment 120.
442	1	Blasting Plan 3.0 General Requirements	Blasting	"*Prior to any blasting activities, the Contractor will provide Atlantic or DTI with appropriate information documenting the experience, licenses, and permits associated with blasting personnel."* USFS must receive, review, and approve documentation of the experience, licenses, and permits associated with blasting personnel.	Need USFS Clarification/Discussion
443	2	Blasting Plan 4.0 Pre-Blasting Requirements	Blasting	"*The Contractor will submit to Atlantic or DTI its site-specific Blasting Specification Plan for approval prior to the execution of blasting activity."* ACP must submit incorporate comments herein into the site-specific Blasting Specification Plan, which would be attached to the COM plan. The plan must be reviewed and approved by the USFS prior to execution of blasting.	See Response to Comment 194.
444	4	Blasting Plan 7.1 Protection of Aboveground and Underground Structures	Blasting	"*Blasting in or near environmentally sensitive areas, such as streams and wildlife areas, may include additional restrictions* ." Identify any environmentally sensitive areas that would be near blasting locations. Submit these locations to the USFS for review and approval by the USFS.	This information will be provided at a later date.
445	4	Blasting Plan 7.1 Protection of Aboveground and Underground Structures	Blasting	"*When blasting on steep slopes the following measures will be taken to minimize blasting impacts* ." Describe the measures that will be taken to minimize blasting impacts on steep slopes.	See response to Comment 120.
446	5	Blasting Plan 7.1 Protection of Aboveground and Underground Structures	Blasting	"*Maximum drill size will be 2.5 inches unless otherwise approved by an Atlantic or DTI representative* ." Explain how equipment would operate on steep slopes. Explain what method/material will be used to keep equipment on steep slopes.	See response to Comment 120.
447	5	Blasting Plan 7.1 Protection of Aboveground and Underground Structures	Blasting	"*Explosive agents and ignition methods will be approved by an Atlantic or DTI representative* ." Explosive agents and ignition methods must be approved by USFS. MSDS must be provided of all chemicals/blasting agents being used on NFS lands.	When blasting contractor has been selected, this will be provided to Atlantic or DTI and will be forwarded to the NFS.
448	5	Blasting Plan	Blasting	"*The Contractor will submit the proposed drilling pattern to an Atlantic or DTI representative for approval* ." The proposed drilling pattern must be submitted to USFS for review and approval.	When blasting contractor has been selected, this will be provided to Atlantic or DTI and will be forwarded to the NFS.

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449	8	Blasting Plan 8.0 Karst	Blasting	"*Blasting will be conducted in a manner that will not compromise the structural integrity or alter the karst hydrology of known or presumed habitat for federally listed threatened and endangered species in the subterranean karst environment (e.g. Madison cave isopod)* ." Explain how will blasting be conducted as to not compromise these areas and explain what procedures will be used or measures taken to ensure this.	Added language to 8.0.
450	9	Blasting Plan 8.0 Karst	Karst	"*If rock removal intercepts an open void, channel, or cave, construction activities will cease in the vicinity of the void, channel, or cave until a remedial assessment is performed by a qualified geologist or engineer with experience in karst terrain* ." Open voids, channels, or caves should already be marked and known based off of the karst survey. If these areas are known and have been properly identified then please explain what will be done to ensure that these areas are not destroyed or affected. Proper permitting will be required prior to any disturbance.	Added language to 6.8.
451	9	Blasting Plan 8.0 Karst	Blasting	"*If the track drill used to prepare drill holes for explosive charges encounters a subsurface void larger than 6 inches within the first 10 feet of bedrock, or a group of voids totaling more than 6 inches within the first 10 feet of bedrock, then explosives will not be used until a subsurface exploration is conducted to determine if the voids have connectivity to a deeper karst structure* ." Ground penetrating radar should be used to identify subsurface voids within pipeline ROW and a buffer zone.	Dominion believes that its current pre-construction karst survey methodology is adequate to reasonably identify near-surface karst features. No changes to COM Plan.
A1	11	Attachment A - ROW Configurations		Several waterbody crossing methods are given for streams or rivers, but no structural specifics are given for wetland crossings. However, the Winter Construction Plan seems to state that all wetland construction will occur during the winter, and spring runoff procedures are described. Is there a diagram showing how wetlands will be crossed, regardless of season?	Only wetlands constructed during the winter will be constructed using winter construction methods. Attachment A provides a typical wetland construction drawing. Typicals in Attachment A will be revised and supplemented to reflect changes (such as setback distances) and provided at a later date.
A2	5	Winter Construction Plan - Wetlands		"In non-frozen soil conditions in wetlands, Atlantic and DTI will remove and segregate topsoil from the area disturbed by trenching, except in areas where standing water is present or soils are saturated." What will be done in areas where standing water is present or soils are saturated?	Non-frozen saturated and flooded soils in wetlands will be sidecast during trenching and contained within the construction workspace.

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A3	5	Winter Construction Plan - Wetlands		"Atlantic and DTI will not stockpile topsoil from wetlands over the Winter for replacement the following Spring; this will minimize the need to conduct restoration activities in wetlands during the wet (Spring, Summer, and Fall) season." This is somewhat confusing. The previous sentence states "In both non-frozen and frozen conditions, the trench in wetlands will be backfilled with subsoil as described above for uplands and the topsoil (where segregated) will be replaced at the time of construction." Is the latter sentence just stating that construction personnel will get rid of whatever topsoil remains after filling it back into the wetland and that leaving extra on site could be detrimental and lead to the need for restoration later on?	No, the intent is that any topsoil segregated in wetlands will be replaced at the time of the construction. In winter, this is particularly important, since it would avoid having to replace the topsoil during the wet season. wherever possible.
A4	6,7,8	Winter Construction Plan - Erosion Controls, Mulching and Seeding		Are straw bales, straw logs, and mulch all weed-free? COM Plan 2.1.9 (page 20) states straw bales will be weed-free. This wording should be consistent in the Winter Construction Plan as well, or is its presence in this part of the COM plan good enough?	The Winter Construction Plan attached to the COM Plan is intended to apply across the entire project. Forest-specific measures included in the COM Plan, such as the prohibition of hay, supersede the more general requirements of the Winter Construction Plan.
A5	2,4,6	Blasting Plan		"The Contractor will be responsible for the protection of existing underground facilities." (page 2) "The Contractor will exercise control to prevent damage to aboveground and underground structures including pipelines, domestic structures, water supply wells, oil and gas wells, electrical transmission tower footings, measures to minimize blasting impacts on steep slopes." (page 4). Do these include both aboveground and underground karst features used by bats as well as tunnel systems under occupied or potentially occupied Allegheny woodrat rock outcrops? Changes in these features, such as collapses, partial collapses, and fracturing, can lead to changes in the microhabitat and have adverse effects on the populations. It seems that the sentence "Blasting in or near environmentally sensitive areas, such as streams and wildlife areas, may include additional restrictions" (page 4) would address these special features if they exist in blasting areas. Will this be the case? Will biologists be notified? Also, since "Blasting will be performed during daylight hours only" (page 6), any collapse or partial collapse of karst features may lead to the direct and immediate loss of individuals or the local population.	As noted, the Blasting Plan acknowledges that blasting in or near environmentally sensitive areas, such as streams and wildlife areas, may include additional restrictions, which would address the concerns noted. EIs and project biologists will be especially attentive to such areas, if blasting is necessary in their vicinity.
A6	9	Blasting Plan		"If rock removal intercepts an open void, channel, or cave, construction activities will cease in the vicinity of the void, channel, or cave until a remedial assessment is performed by a qualified geologist or engineer with experience in karst terrain." The assessment should also include a biologist who understands how bats will be affected.	This is addressed in the Biological Evaluation.

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A7	19	2.1.9		"Atlantic will cross all waterbodies on NFS lands using open cut construction methods." Will any effort be made to retrieve fish and amphibians from the relatively small areas of water and mud and relocated to the downstream or undisturbed wetland portion of waterbody crossings?	Need USFS clarification/discussion.
A8	39	4		Training… "Threatened and endangered species procedures and restrictions" Should include sensitive species (e.g., rattlesnakes, for which training should be provided to all workers on potential rattlesnake foraging habitat during summer to ensure safety of personnel and rattlesnakes).	Revised 3.7.
A9	38	3.6.1.1		Depending on the timing of construction, avian monitors may be required during tree clearing operations.	Acknowledged
A10	39	4		Reporting: observations of any Threatened, Endangered, or RFSS species on Forest Service lands should be reported to the FS and FWS within 24 hours.	Acknowledged
A11	65	7		See comments submitted re. Karst Monitoring and Mitigation Plan	Acknowledged.
A12	67	6		"The MNF's LRMP does not offer specific standards, goals, or guidelines that addressed blasting or the use of explosives." This is not true – MNF FP Standard TE20 (VBEB): Explosives shall not be used within 200 feet of hibernacula, maternity colonies, or bachelor colonies …. Explosives outside of this area shall not be used when such use has potential to damage the cave or disturb the bat; TE39 (Ibat): Explosives may be allowed within the primary range if it can be demonstrated that this activity will not have an adverse effect on bat populations or habitat; TE50 (Ibat): Explosives shall not be used within 200 feet of hibernacula, within key areas, or within 2.5 miles of active maternity sites, … Explosives outside of these areas shall not be used when such use has potential to damage the cave or disturb the bat. Since those are the same standards noted for the GWNF, perhaps the Forest names were inadvertently switched?	The Forest names were inadvertently switched; this has been corrected.
A13	69	7		"Roads requiring improvements are identified in Table 1, Section 1, of this COM Plan." Cannot find this table; it must contain road- and location-specific information regarding exactly what types of improvement are needed to allow impact assessment.	Revised 7.4.
A14	70	74		"During winter, snow will be removed, as necessary, from approved access roads to allow safe access to the construction rights-of-way. … If existing Forest Service roads are damaged during construction, Atlantic will restore the roads to their maintenance prescription guideline ...." Snow should not be pushed off in the vicinity of identified woodrat habitat in quantities that could affect access to subsurface habitats. If road repair is required in locations directly adjacent to woodrat habitat, the Forest Wildlife Biologist should be consulted to ensure that habitat is not modified during repair.	Acknowledged.

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A15	75	8.3.1		"For the AP-1 mainline, the construction corridor in non-agricultural uplands will measure 125 feet in width, with a 40-foot-wide spoil side and an 85-foot-wide working side." Given restrictions in some non-agricultural areas, recommend wording similar to: "For the AP-1 mainline, the construction corridor in non-agricultural uplands outside of Threatened, Endangered, and Sensitive species habitats will measures …"	Need USFS Clarification/Discussion
A16	76	8.3.3		"Access Roads. … Some existing roads will require improvement (such as grading, gravelling, replacing or installing culverts, minor widening, and/or clearing of overhead vegetation) ...." As previously noted, road- and location-specific information is needed for anticipated improvement needs	Acknowledged. This will be addressed in the Haul Plan.
A17	80	8.5.6		"Slash will be ground up and used as mulch, hauled to an approved disposal site, or burned." Some large woody debris should be left on-site, within the forested land adjacent to the ROW.	Revised 8.5.3.
A18	47-48	11.4.2.1		The use of any herbicide that is classified as a neonicotinoid should be prohibited.	Acknowledged.
A19	174	16.4.1		"Atlantic will have one or more water trucks available per spread that will load water from approved permitted sources to spray areas for dust control." The inlet of the draft hose should have a metal screen with small openings attached to prevent the uptake of fish and amphibians from the water source.	Water withdrawals to water trucks for dust control will not occur on USFS lands.