

1.0 SITE RESTORATION DESIGN SUMMARY

1.1 INTRODUCTION

THE FOLLOWING METHODOLOGY AND CALCULATIONS WERE DEVELOPED TO ENSURE COMPLIANCE WITH VADEQ REGULATIONS (9VAC-25-875 PART V, ARTICLE 3) FOR WATER QUALITY AND WATER QUANTITY FOR THE LINEAR PIPELINE PORTIONS OF THE PROJECT. THE EDEN-MLV-02 AND EDEN-MLV-03 SITES DRAINAGE AREAS ARE NOT INCORPORATED IN THE FOLLOWING CALCULATIONS AND ARE INCLUDED IN A SEPARATE CALCULATION PACKAGE.

1.2 TYPICAL PIPELINE CORRIDOR POST-CONSTRUCTION CONDITIONS

THE PIPELINE CONSTRUCTION CORRIDOR WILL BE RESTORED FOLLOWING CONSTRUCTION IN THE MANNER DESCRIBED BELOW. THE DISTINCTION BETWEEN TEMPORARY AND PERMANENT RIGHT-OF-WAY (ROW) PRACTICES CONSIDERS THE DEVELOPER'S OPERATIONAL CONTROL OVER AREAS WITHIN ITS EASEMENT.

- THE PERMANENT ROW WILL BE SEEDED AND RESTORED IN THE FOLLOWING MANNER:
 - PRE-CONSTRUCTION AGRICULTURAL LAND USE WILL RETURN TO AGRICULTURAL LAND USE POST-CONSTRUCTION.
 - PRE-CONSTRUCTION IMPERVIOUS COVER WILL REMAIN IMPERVIOUS POST-CONSTRUCTION.
 - PRE-CONSTRUCTION FORESTED COVER WITHIN THE PERMANENT ROW, WILL BE CONVERTED TO MEADOW IN POST-CONSTRUCTION.
 - PALUSTRINE FORESTED (PFO) AND PALUSTRINE SCRUB SHRUB (PSS) WETLANDS WILL BE CONVERTED POST-CONSTRUCTION IN THE FOLLOWING MANNER:
 - 10-FOOT MAINTENANCE CORRIDOR CENTERED ON THE PIPELINE: ONLY PEM WETLANDS ARE RESTORED TO INITIAL CONDITIONS. PFO AND PSS WETLANDS WILL BE PERMANENTLY CONVERTED TO PEM.
 - 10-FOOT TO 30-FOOT TREE MAINTENANCE CORRIDOR CENTERED ON THE PIPELINE: PEM AND PSS WETLANDS ARE RESTORED TO INITIAL CONDITIONS. PFO WILL BE PERMANENTLY CONVERTED TO PSS.
 - OUTSIDE OF 30-FOOT CORRIDOR CENTERED ON THE PIPELINE: ALL WETLANDS RESTORED TO INITIAL CONDITIONS. PFO WILL BE ALLOWED TO GROW BACK THUS CONSIDERED TEMPORARY BUT VOLUNTARILY MITIGATED AS PERMANENT CONVERSION AND FOR TEMPORAL LOSS WHILE PFO REGROWS.
 - OTHER PRE-CONSTRUCTION CONDITIONS SUCH AS RESIDENTIAL LAWNS, MEADOW, AND PALUSTRINE EMERGMENT (PEM) WETLANDS WILL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS.
- THE TEMPORARY CONSTRUCTION ROW WILL BE RESTORED IN THE FOLLOWING MANNER:
 - IF PRE-CONSTRUCTION LAND USE IS AGRICULTURAL LAND, POST-CONSTRUCTION CONDITION WILL RETURN TO AGRICULTURAL USE.
 - IF PRE-CONSTRUCTION LAND USE IS IMPERVIOUS COVER, THESE IMPERVIOUS SURFACES WILL REMAIN IN THE POST-CONSTRUCTION CONDITION.
 - IF PRE-CONSTRUCTION LAND USE IS FORESTED COVER, POST-CONSTRUCTION CONDITION WILL RETURN TO FORESTED COVER UTILIZING A BRUSH SEED MIX SUPPLEMENTED WITH TREE SEEDLINGS THAT WILL RETURN THE AREA TO FORESTED COVER THROUGH NATURAL SUCCESSION.
 - IN SELECT INSTANCES, EXISTING FORESTED COVER WITHIN THIS PROJECT'S TEMPORARY CONSTRUCTION ROW THAT IS CO-LOCATED WITHIN THE EXISTING TRANSCO'S EXISTING LINES (E.G. WITHIN 25 FEET OF TRANSCO'S EXISTING LINES) WILL RETURN TO MEADOW.
 - OTHER PRE-CONSTRUCTION CONDITIONS SUCH AS RESIDENTIAL LAWNS, BRUSH, MEADOW, WETLANDS, ETC. WILL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS.

THE FOLLOWING PRACTICES WILL APPLY TO THE AREAS OF PERMANENT ROW THAT WILL BE SEEDED AND RESTORED TO MEADOW CONDITIONS:

- MOWING AND GENERAL MAINTENANCE WILL BE CONSISTENT WITH THE MIXED OPEN PRACTICES LISTED IN THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM) V.4.1 COVER MEMO AND VRRM V.4.1 USER GUIDE (JANUARY 2024), TABLE 1.
- THE FULL WIDTH OF PERMANENT ROW WILL NOT BE MOWED ANY MORE FREQUENTLY THAN ONCE EVERY THREE YEARS.
- A CORRIDOR NOT EXCEEDING 10 FEET IN WIDTH LOCATED DIRECTLY OVER THE PIPELINE WILL BE MOWED ANNUALLY FOR INSPECTION PURPOSES IN ACCORDANCE WITH FEDERAL ENERGY REGULATORY COMMISSION (FERC) PLAN AND PROCEDURES.

1.3 STORMWATER METHODOLOGY

PERMANENT LAND COVER WILL ONLY CHANGE PRE- TO POST-DEVELOPMENT IN THE PERMANENT ROW FOR THE TREE CLEARING AREAS, MLV SITES, AND THE COMPRESSOR STATION. STORMWATER CALCULATIONS FOR THE MLV SITES AND COMPRESSOR STATION ARE PROVIDED UNDER SEPARATE COVERS. THE FOLLOWING DESCRIBES HOW THE PROJECT WILL COMPLY WITH THE WATER QUANTITY CRITERIA OF 9VAC25-875.600.

PRE-CONSTRUCTED FORESTED COVER

A LARGE PORTION OF THIS PROJECT IS CO-LOCATED WITHIN AN EXISTING PIPELINE ROW. FORESTED AREAS WITHIN THE TEMPORARY ROW (EXCEPT AS NOTED ABOVE) WILL BE SEEDED WITH A BRUSH SEED MIX SUPPLEMENTED WITH TREE SEEDLINGS. THEREFORE, A BRUSH CURVE NUMBER IS USED FOR THESE AREAS IN WATER QUANTITY CALCULATIONS. ALTHOUGH SEEDLINGS MAY EVENTUALLY GROW TO A FORESTED CONDITION, AT THE END OF CONSTRUCTION, THEY ARE SMALL WOODY PLANTS THAT CAN BE CONSIDERED PART OF THE BRUSH LAND COVER. FORESTED AREAS WITHIN THE PERMANENT ROW WILL BE A MEADOW LAND COVER IN THE POST-CONSTRUCTION CONDITION. WHILE THE PERMANENT ROW IS BEING PLANTED WITH A MEADOW MIX (EXCEPT FOR EXISTING IMPERVIOUS, AGRICULTURE AND RESIDENTIAL LANDS), IT WILL BE MOWED NO MORE THAN ONCE A YEAR, WHICH WILL LIKELY RESULT IN A BRUSH LAND COVER DUE TO NATURAL SUCCESSION. HOWEVER, AS A MARGIN OF SAFETY THE STORMWATER CALCULATIONS ASSUMED A MEADOW LAND COVER.

ENTIRE LIMITS OF DISTURBANCE EVALUATION (WAIVER AND NON-WAIVER AREAS)

THE FOLLOWING TABLE LISTS THE PRE- VS POST-DEVELOPMENT CURVE NUMBERS FOR EACH HUC-12 WATERSHED WITHIN THE ENTIRE LIMIT OF DISTURBANCE FOR TREE CLEARING AND NON-TREE CLEARING/WAIVER AREAS (LAND BEING RETURNED TO PRE-DEVELOPMENT CONDITIONS). BASED ON ANALYSIS OF ALL AREAS WITHIN THE LOD, THIS PROJECT AS A WHOLE WILL NOT RESULT IN AN INCREASED VOLUME OF SHEET FLOW AS DEMONSTRATED BY THE CURVE NUMBER ANALYSIS. DUE TO POST-CONSTRUCTION ALWAYS RESULTING IN A CN LESS THAN OR EQUAL TO THAT OF THE PRE-CONSTRUCTION CONDITIONS, THERE IS NO INCREASE IN VOLUMES OF SHEET FLOW AND THEREFORE THE WATER QUANTITY REQUIREMENTS OF 9VAC25-875.600.D HAVE BEEN MET.

AS A FURTHER ANALYSIS, STORMWATER MANAGEMENT WAS REVIEWED ON A RESOURCE LEVEL SCALE. DRAINAGE ANALYSES WERE PERFORMED AT ENVIRONMENTAL FEATURES (STREAMS AND WETLANDS) TO ANALYZE THE CHANGE IN CURVE NUMBER BETWEEN PRE- AND POST-CONSTRUCTION. IT WAS DETERMINED THAT THE CURVE NUMBER ONLY INCREASED AT ONE LOCATION (APPROX. MP 1406.9 TO MP 1407.1). TO MITIGATE THE INCREASE, A 7.5-FOOT WIDE STRIP OF BRUSH IS TO BE PLANTED WITHIN THE PERMANENT ROW TO AVOID AN INCREASE IN THE CURVE NUMBER TO THE STREAM BETWEEN PRE-AND POST-CONSTRUCTION. THEREFORE, THERE IS NO INCREASE IN VOLUME OF SHEET FLOW AT ANY ENVIRONMENTAL FEATURE AND THEREFORE THE WATER QUANTITY REQUIREMENTS OF 9VAC25-875.600.D HAVE BEEN MET.

TOTAL PROJECT LOD (INCLUDING BOTH WAIVER AND NON-WAIVER AREAS)			
WATERSHED	PRE-CONSTRUCTION CN (WEIGHTED)	POST-CONSTRUCTION CN (WEIGHTED)	
TROTTERS CREEK - DAN RIVER (030101030903)	66	64	
LOWER SANDY RIVER (030101031003)	67	66	
SANDY CREEK (WEST) - DAN RIVER (030101031004)	61	59	
WHITE OAK CREEK - BANISTER RIVER (030101050103)	64	63	
CHERRYSTONE CREEK (030101050104)	66	65	
SHOCKTOE CREEK - BANISTER RIVER (030101050203)	73	73	
TOTAL PROJECT LOD	65	64	

TREE CLEARING AREAS (NON-WAIVER AREA)

THE FOLLOWING TABLE LISTS THE PRE- VS POST-DEVELOPMENT CURVE NUMBERS FOR EACH HUC-12 WATERSHED WITH THE ENTIRE LIMIT OF DISTURBANCE FOR TREE CLEARING AREAS. THIS TABLE IS PROVIDED TO ANALYZE IMPACTS RELATED TO TREE CLEARING FOR THE PROJECT AS A WHOLE. BASED ON AN ANALYSIS OF ALL TREE-CLEARING AREAS WITHIN THE LOD, THIS PROJECT WILL NOT RESULT IN AN INCREASED VOLUME OF SHEET FLOW AS DEMONSTRATED BY THE CURVE NUMBER ANALYSIS. DUE TO POST-CONSTRUCTION ALWAYS RESULTING IN A CN LESS THAN OR EQUAL TO THAT OF THE PRE-CONSTRUCTION CONDITIONS, THERE IS NO INCREASE IN VOLUMES OF SHEET FLOW WATER AND THEREFORE THE WATER QUANTITY STANDARDS OF 9VAC25-875.600.D HAVE BEEN MET. IN ADDITION, DUE TO DECOMPACTION AND REPLANTING EFFORTS, THE TABLE DEMONSTRATES THAT ON A WATERSHED LEVEL, TREE CLEARING AREAS ARE ALWAYS RETURNED TO A HYDROLOGIC CONDITION BETTER THAN WOODS, GOOD, AND THEREFORE THE WATER QUANTITY STANDARDS OF 9VAC25-875.600.B.3.a AND 9VAC25-875.600.C HAVE ALSO BEEN MET.

NON-WAIVER AREAS ONLY		
WATERSHED	PRE-CONSTRUCTION CN (WEIGHTED)	POST-CONSTRUCTION CN (WEIGHTED)
TROTTERS CREEK - DAN RIVER (030101030903)	61	58
LOWER SANDY RIVER (030101031003)	55	51
SANDY CREEK (WEST) - DAN RIVER (030101031004)	56	52
WHITE OAK CREEK - BANISTER RIVER (030101050103)	56	53
CHERRYSTONE CREEK (030101050104)	67	65
SHOCKTOE CREEK - BANISTER RIVER (030101050203)	N/A	N/A
TOTAL PROJECT LOD	58	55

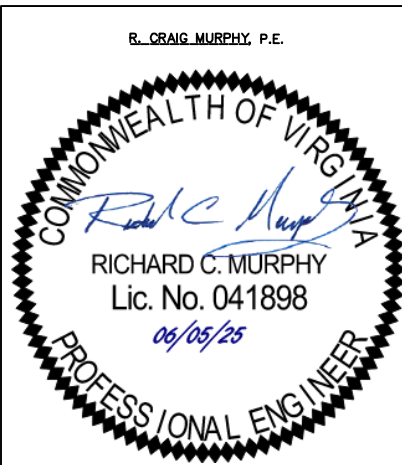
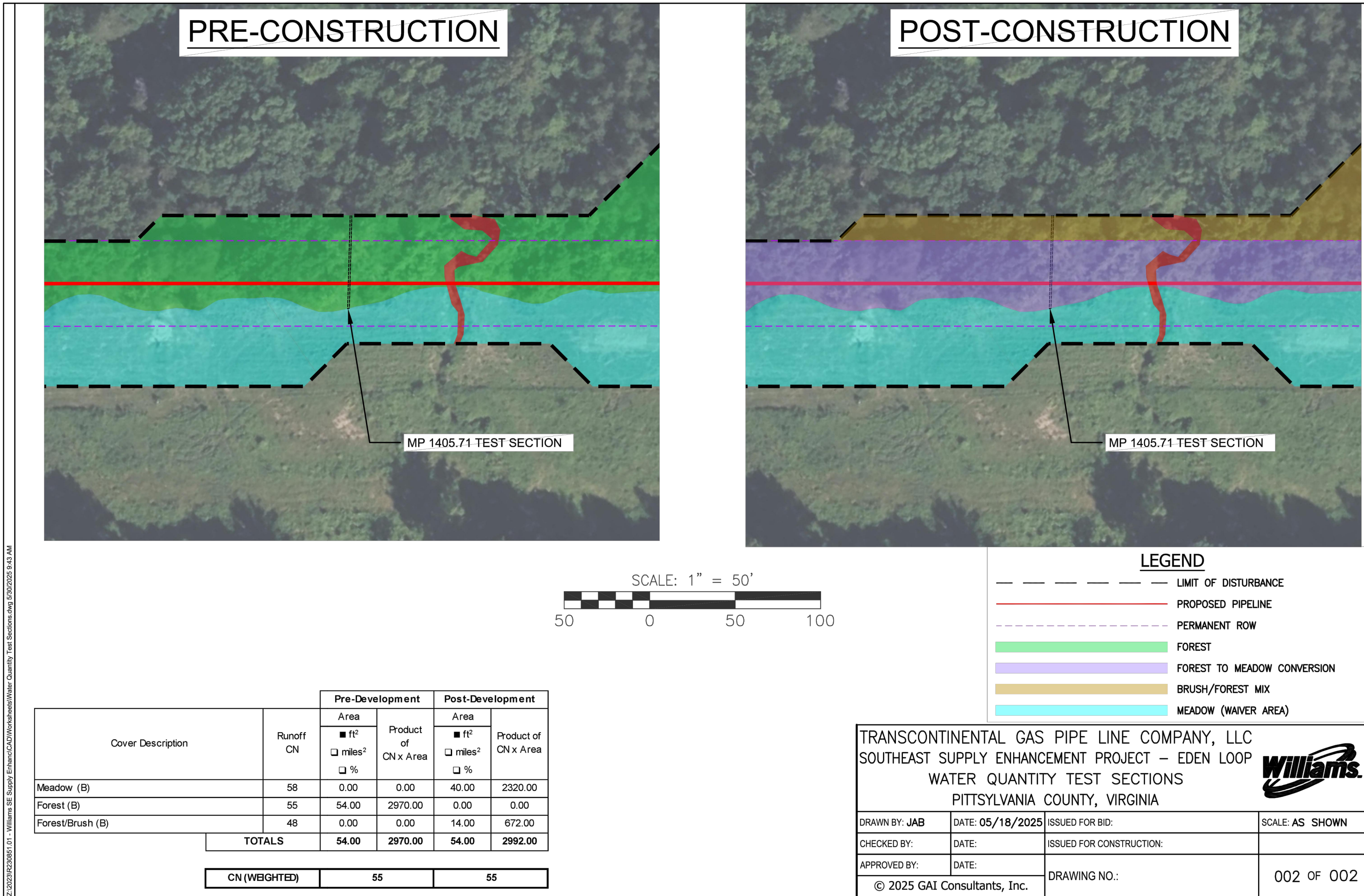
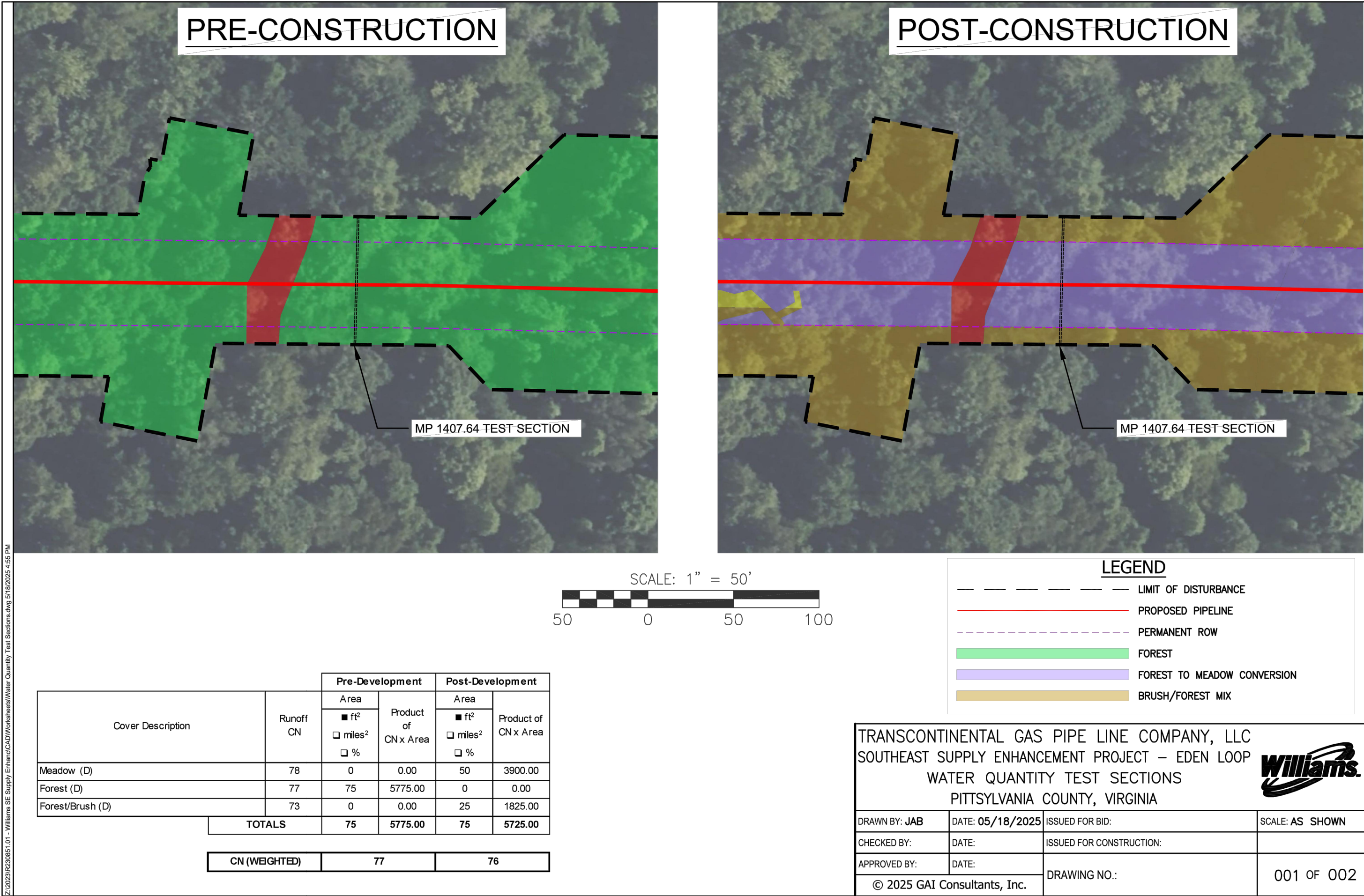
TO FURTHER SUPPORT THE INFORMATION PROVIDED ABOVE, TWO TEST SECTIONS ARE SHOWN ON THIS SHEET TO DEMONSTRATE A TYPICAL CHANGE IN CURVE NUMBER RESULTING FROM TREE CLEARING. THE FIRST TEST SECTION IS FOR AN AREA WHERE TREE CLEARING WILL BE REQUIRED ACROSS THE ENTIRE LOD. THE SECOND TEST SECTION IS AN AREA WHERE ONLY PARTIAL TREE CLEARING IS REQUIRED. A 1-FOOT WIDE TEST SECTION WAS ANALYZED AND THE CHANGE IN CURVE NUMBER HAS BEEN CALCULATED BETWEEN PRE- AND POST-CONSTRUCTION CONDITIONS. FOR THE SECOND TEST SECTION, THE TEST SECTION IS ONLY SHOWN IN THE EXISTING FOREST AREA, AND EXCLUDES THE MEADOW (WAIVER AREA) TO SHOW THAT THE CURVE NUMBER WILL NOT BE GREATER THAN FOREST.

1.4 STORMWATER MANAGEMENT WAIVER REQUEST

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO), IS REQUESTING A WAIVER FOR ALL AREAS RETURNING TO PRE-DEVELOPMENT CONDITIONS AND LAND COVERS. THE WAIVER AREAS ENCOMPASS THE ENTIRETY OF THE PROJECT EXCEPT FOR AREAS CONVERTED FROM FOREST TO ANOTHER LAND COVER, THE MLV SITES, AND THE COMPRESSOR STATION.

THE TABLE SUMMARIZES THE AREAS THAT ARE REQUESTED AS PART OF THE STORMWATER WAIVER REQUEST FOR WATER QUANTITY:

Cover Description	Runoff CN	Pre-Development		Post-Development	
		Area	Product of	Area	Product of
		■ Acres □ miles² □ %	of CN x Area	■ Acres □ miles² □ %	of CN x Area
Meadow (B)	58	196.11	11374.38	196.11	11374.38
Meadow (C)	71	2.30	163.30	2.30	163.30
Meadow (D)	78	24.80	1934.40	24.80	1934.40
Residential Lawn (B)	61	8.74	533.14	8.74	533.14
Impervious	98	16.16	1583.68	16.16	1583.68
Agricultural (B)	78	93.80	7316.40	93.80	7316.40
Agricultural (C)	85	0.84	71.40	0.84	71.40
Agricultural (D)	89	0.24	21.36	0.24	21.36
TOTALS		342.99	22998.06	342.99	22998.06
CN (WEIGHTED)		67		67	



REVISIONS					
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK. APP.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
SOUTHEAST SUPPLY ENHANCEMENT PROJECT
EDEN LOOP
PCSM/WATER QUANTITY LAND COVER

DETAILS

DRAWN BY: JAB	DATE: 5-30-25	ISSUED FOR BID:	SCALE: AS NOTED
CHECKED BY: JML	DATE: 5-30-25	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: RCM	DATE: 5-30-25	DRAWING NUMBER: VA-EDEN-SMQUAN-064	SHEET 64 OF 66

Project: Southeast Supply Enhancement Project	By: BARCLJA	Date: 5/30/2025
Location: Trotters Creek - Dan River (030101030903)	Checked: MURPHRC	Date: 5/31/2025



Cover Description	Runoff CN	Pre-Development		Post-Development	
		Area	Product of CN x Area	Area	Product of CN x Area
		■ Acres □ miles² □ %		■ Acres □ miles² □ %	
Meadow (B)	58	39.74	2304.92	50.80	2946.40
Meadow (C)	71	0.82	58.22	0.82	58.22
Meadow (D)	78	10.91	850.98	12.83	1000.74
Forest (B)	55	27.05	1487.75	0.00	0.00
Forest (C)	70	0.06	4.20	0.00	0.00
Forest (D)	77	10.15	781.55	0.00	0.00
Forest/Brush Mix (B)	48	0.00	0.00	17.73	851.04
Forest/Brush Mix (C)	65	0.00	0.00	0.06	3.90
Forest/Brush Mix (D)	73	0.00	0.00	6.57	479.61
Residential Lawn (B)	61	0.47	28.67	0.47	28.67
Residential Lawn (C)	74	0.00	0.00	0.00	0.00
Residential Lawn (D)	80	0.00	0.00	0.00	0.00
Impervious	98	3.92	384.16	3.84	376.32
Agricultural (B)	78	17.81	1389.18	17.81	1389.18
Agricultural (C)	85	0.00	0.00	0.00	0.00
Agricultural (D)	89	0.00	0.00	0.00	0.00
Brush (B)	48	0.00	0.00	0.00	0.00
Brush (C)	65	0.00	0.00	0.00	0.00
Brush (D)	73	0.00	0.00	0.00	0.00
TOTALS		110.93	7289.63	110.93	7134.08
CN (WEIGHTED)		66		64	

Project: Southeast Supply Enhancement Project	By: BARCLJA	Date: 5/30/2025
Location: Cherrystone Creek (030101050104)	Checked: MURPHRC	Date: 5/31/2025



Cover Description	Runoff CN	Pre-Development		Post-Development	
		Area	Product of CN x Area	Area	Product of CN x Area
		■ Acres □ miles² □ %		■ Acres □ miles² □ %	
Meadow (B)	58	47.21	2738.18	47.83	2774.14
Meadow (C)	71	1.48	105.08	1.56	110.76
Meadow (D)	78	10.81	843.18	13.05	1017.90
Forest (B)	55	3.40	187.00	0.00	0.00
Forest (C)	70	0.50	35.00	0.00	0.00
Forest (D)	77	5.51	424.27	0.00	0.00
Forest/Brush Mix (B)	48	0.00	0.00	2.79	133.92
Forest/Brush Mix (C)	65	0.00	0.00	0.41	26.65
Forest/Brush Mix (D)	73	0.00	0.00	2.94	214.62
Residential Lawn (B)	61	0.00	0.00	0.00	0.00
Residential Lawn (C)	74	0.00	0.00	0.00	0.00
Residential Lawn (D)	80	0.00	0.00	0.00	0.00
Impervious	98	2.99	293.02	2.99	293.02
Agricultural (B)	78	5.24	408.72	5.24	408.72
Agricultural (C)	85	0.84	71.40	0.84	71.40
Agricultural (D)	89	0.24	21.36	0.24	21.36
Brush (B)	48	0.00	0.00	0.01	0.48
Brush (C)	65	0.00	0.00	0.00	0.00
Brush (D)	73	0.02	1.46	0.34	24.82
TOTALS		78.24	5128.67	78.24	5097.79
CN (WEIGHTED)		66		65	

Project: Southeast Supply Enhancement Project	By: BARCLJA	Date: 5/30/2025
Location: White Oak Creek - Banister River (030101050103)	Checked: MURPHRC	Date: 5/31/2025



Cover Description	Runoff CN	Pre-Development		Post-Development	
		Area	Product of CN x Area	Area	Product of CN x Area
		■ Acres □ miles² □ %		■ Acres □ miles² □ %	
Meadow (B)	58	63.02	3655.16	75.73	4392.34
Meadow (C)	71	0.00	0.00	0.00	0.00
Meadow (D)	78	2.72	212.16	3.36	262.08
Forest (B)	55	34.56	1900.80	0.00	0.00
Forest (C)	70	0.00	0.00	0.00	0.00
Forest (D)	77	1.74	133.98	0.00	0.00
Forest/Brush Mix (B)	48	0.00	0.00	21.64	1038.72
Forest/Brush Mix (C)	65	0.00	0.00	0.00	0.00
Forest/Brush Mix (D)	73	0.00	0.00	0.95	69.35
Residential Lawn (B)	61	2.82	172.02	2.82	172.02
Residential Lawn (C)	74	0.00	0.00	0.00	0.00
Residential Lawn (D)	80	0.00	0.00	0.00	0.00
Impervious	98	6.03	590.94	6.03	590.94
Agricultural (B)	78	28.45	2219.10	28.45	2219.10
Agricultural (C)	85	0.00	0.00	0.00	0.00
Agricultural (D)	89	0.00	0.00	0.00	0.00
Brush (B)	48	0.06	2.88	0.28	13.44
Brush (C)	65	0.00	0.00	0.00	0.00
Brush (D)	73	0.02	1.46	0.16	11.68
TOTALS		139.42	8888.50	139.42	8769.67
CN (WEIGHTED)		64		63	

Project: Southeast Supply Enhancement Project	By: BARCLJA	Date: 5/30/2025
Location: Lower Sandy River (030101031003)	Checked: MURPHRC	Date: 5/31/2025



Cover Description	Runoff CN	Pre-Development		Post-Development	
		Area	Product of CN x Area	Area	Product of CN x Area
		■ Acres □ miles² □ %		■ Acres □ miles² □ %	
Meadow (B)	58	22.89	1327.62	28.31	1641.98
Meadow (C)	71	0.00	0.00	0.00	0.00
Meadow (D)	78	0.00	0.00	0.00	0.00
Forest (B)	55	16.37	900.35	0.00	0.00
Forest (C)	70	0.00	0.00	0.00	0.00
Forest (D)	77	0.00	0.00	0.00	0.00
Forest/Brush Mix (B)	48	0.00	0.00	11.30	542.40
Forest/Brush Mix (C)	65	0.00	0.00	0.00	0.00
Forest/Brush Mix (D)	73	0.00	0.00	0.00	0.00
Residential Lawn (B)	61	2.65	161.65	2.65	161.65
Residential Lawn (C)	74	0.00	0.00	0.00	0.00
Residential Lawn (D)	80	0.00	0.00	0.00	0.00
Impervious	98	1.73	169.54	1.73	169.54
Agricultural (B)	78	33.32	2598.96	32.96	2570.88
Agricultural (C)	85	0.00	0.00	0.00	0.00
Agricultural (D)	89	0.00	0.00	0.00	0.00
Brush (B)	48	0.00	0.00	0.01	0.48
Brush (C)	65	0.00	0.00	0.00	0.00
Brush (D)	73	0.00	0.00	0.00	0.00
TOTALS		76.96	5158.12	76.96	5086.93
CN (WEIGHTED)		67		66	

Project: Southeast Supply Enhancement Project	By: BARCLJA	Date: 5/30/2025
Location: Shockoe Creek - Banister River (030101050203)	Checked: MURPHRC	Date: 5/31/2025



Cover Description	Runoff CN	Pre-Development		Post-Development	
		Area	Product of CN x Area	Area	Product of CN x Area
		■ Acres □ miles² □ %		■ Acres □ miles² □ %	
Meadow (B)	58	0.81	46.98	0.81	46.98
Meadow (C)	71	0.00	0.00	0.00	0.00
Meadow (D)	78	0.03	2.34	0.03	2.34
Forest (B)	55	0.00	0.00	0.00	0.00
Forest (C)	70	0.00	0.00	0.00	0.00
Forest (D)	77	0.00	0.00	0.00	0.00
Forest/Brush Mix (B)	48	0.00	0.00		0.00
Forest/Brush Mix (C)	65	0.00	0.00	0.00	0.00
Forest/Brush Mix (D)	73	0.00	0.00	0.00	0.00
Residential Lawn (B)	61	0.00	0.00	0.00	0.00
Residential Lawn (C)	74	0.00	0.00	0.00	0.00
Residential Lawn (D)	80	0.00	0.00	0.00	0.00
Impervious	98	0.46	45.08	0.46	45.08
Agricultural (B)	78	0.00	0.00	0.00	0.00
Agricultural (C)	85	0.00	0.00	0.00	0.00
Agricultural (D)	89	0.00	0.00	0.00	0.00
Brush (B)	48	0.00	0.00	0.00	0.00
Brush (C)	65	0.00	0.00	0.00	0.00
Brush (D)	73	0.00	0.00	0.00	0.00
TOTALS		1.30	94.40	1.30	94.40
CN (WEIGHTED)		73		73	

Project: Southeast Supply Enhancement Project	By: BARCLJA	Date: 5/30/2025
Location: Sandy Creek (West) - Dan River (030101031004)	Checked: MURPHRC	Date: 5/31/2025



Cover Description	Runoff CN	Pre-Development		Post-Development	
		Area	Product of CN x Area	Area	Product of CN x Area
		■ Acres □ miles² □ %		■ Acres □ miles² □ %	
Meadow (B)	58	22.44	1301.52	30.13	1747.54
Meadow (C)	71	0.00	0.00	0.00	0.00
Meadow (D)	78	0.33	25.74	0.67	52.28
Forest (B)	55	23.00	1285.00	0.00	0.00
Forest (C)	70	0.00	0.00	0.00	0.00
Forest (D)	77	0.60	46.20	0.00	0.00
Forest/Brush Mix (B)	48	0.00	0.00	15.57	747.36
Forest/Brush Mix (C)	65	0.00	0.00	0.00	0.00
Forest/Brush Mix (D)	73	0.00	0.00	0.00	0.00
Residential Lawn (B)	61	2.80	170.80	2.80	170.80
Residential Lawn (C)	74	0.00	0.00	0.00	0.00
Residential Lawn (D)	80	0.00	0.00	0.00	0.00
Impervious	98	1.03	100.94	1.03	100.94
Agricultural (B)	78	8.98	700.44	8.98	700.44
Agricultural (C)	85	0.00	0.00	0.00	0.00
Agricultural (D)	89	0.00	0.00	0.00	0.00
Brush (B)	48	0.00	0.00	0.00	0.00
Brush (C)	65	0.00	0.00	0.00	0.00
Brush (D)	73	0.00	0.00	0.00	0.00
TOTALS		59.18	3610.64	59.18	3519.34
CN (WEIGHTED)		61		59	

Project: Southeast Supply Enhancement Project	By: BARCLJA	Date: 5/30/2025
Location: Total Project LOD	Checked: MURPHRC	Date: 5/31/2025



Cover Description	Runoff CN	Pre-Development		Post-Development	
		Area	Product of CN x Area	Area	Product of CN x Area
		■ Acres □ miles² □ %		■ Acres □ miles² □ %	
Meadow (B)	58	196.11	11374.38	233.61	13549.38
Meadow (C)	71	2.30	163.30	2.38	168.98
Meadow (D)	78	24.80	1934.40	29.94	2335.32
Forest (B)	55	104.38	5740.90	0.00	0.00
Forest (C)	70	0.56	39.20	0.00	0.00
Forest (D)	77	18.00	1386.00	0.00	0.00
Forest/Brush Mix (B)	48	0.00	0.00	69.03	3313.44
Forest/Brush Mix (C)	65	0.00	0.00	0.47	30.55
Forest/Brush Mix (D)	73	0.00	0.00	10.46	763.58
Residential Lawn (B)	61	8.74	533.14	8.74	533.14
Residential Lawn (C)	74	0.00	0.00	0.00	0.00
Residential Lawn (D)	80	0.00	0.00	0.00	0.00
Impervious	98	16.16	1583.68	16.08	1575.84
Agricultural (B)	78	93.80	7316.40	93.44	7288.32
Agricultural (C)	85	0.84	71.40	0.84	71.40
Agricultural (D)	89	0.24	21.36	0.24	21.36
Brush (B)	48	0.06	2.88	0.30	14.40
Brush (C)	65	0.00	0.00	0.00	0.00
Brush (D)	73	0.04	2.92	0.50	36.50
TOTALS		466.03	30169.96	466.03	29702.21
CN (WEIGHTED)		65		64	

<div>0. CRAG, MURPHY, P.E.</div> <div></div> <div>RICHARD C. MURPHY Lic. No. 041898 04/09/25 PROFESSIONAL ENGINEER</div>	REVISIONS						TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC SOUTHEAST SUPPLY ENHANCEMENT PROJECT EDEN LOOP PCSM/WATER QUANTITY LAND COVER DETAILS PITTSYLVANIA COUNTY, VIRGINIA					
	NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK	APP.					
DRAWN BY: JAB							DATE: 5-30-25	ISSUED FOR BID:		SCALE: AS NOTED	SHEET 66 OF 66	
CHECKED BY: JML							DATE: 5-30-25	ISSUED FOR CONSTRUCTION:		REVISION:		
APPROVED BY: RCM							DATE: 5-30-25	DRAWING NUMBER: VA-EDEN-SMQUAN-066				
							WO: C1009554	RID: 500				