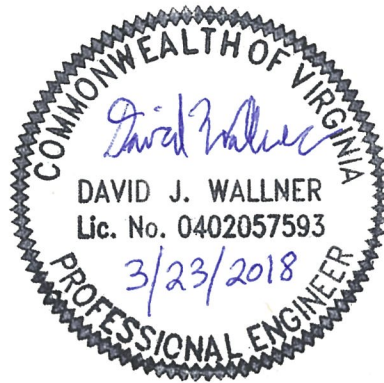
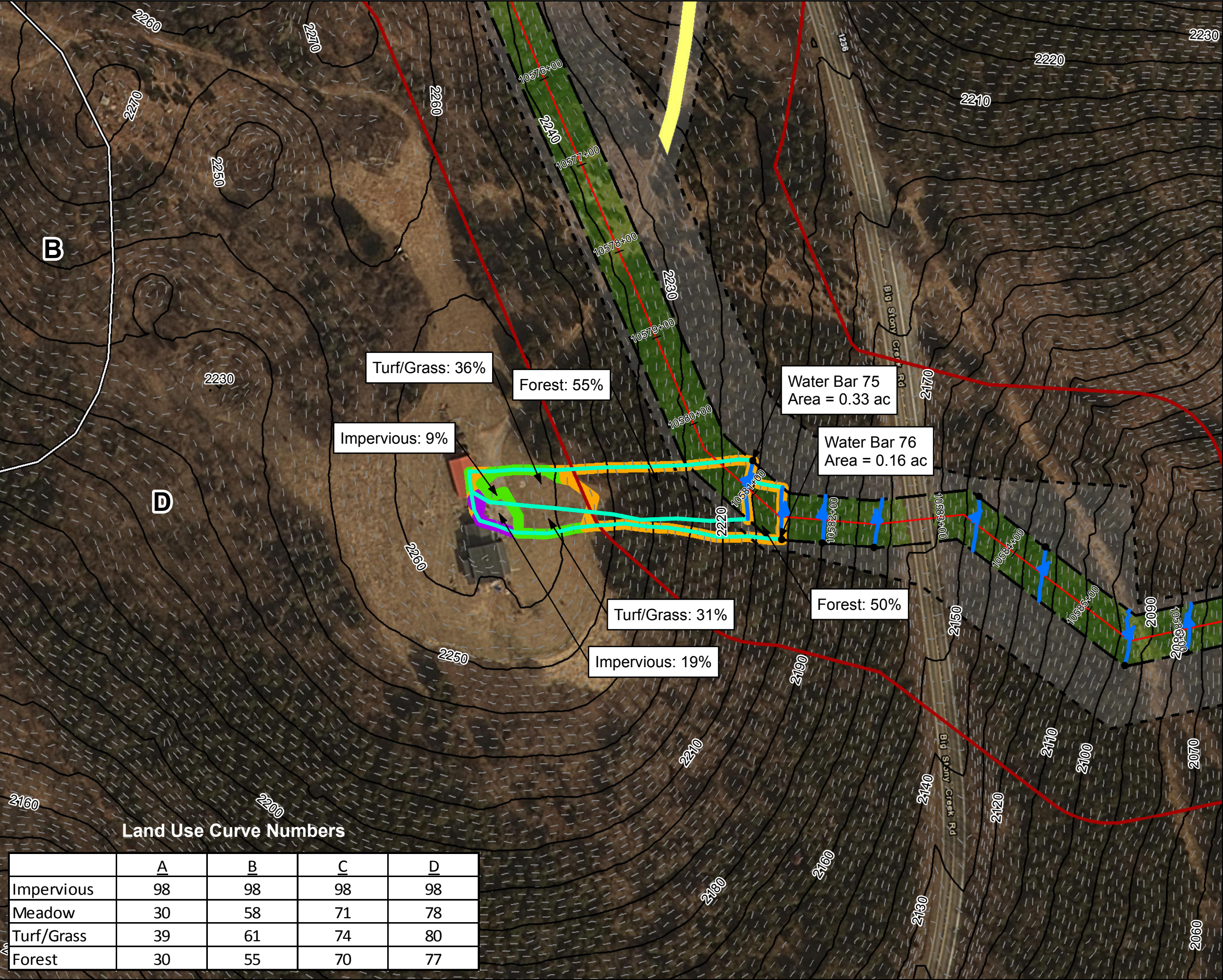


By virtue of this seal and signature, all supporting documents included in this package are accurate and support the design presented herein.





Legend

- Approximate Location of Water Bar End Treatment
- Permanent Water Bar 10-ft End Treatment
- Permanent Water Bar 15-ft End Treatment
- Permanent Water Bar 20-ft End Treatment
- Sheetflow
- Shallow Concentrated Flow
- Streams
- Stationing
- Alignment Centerline
- Permanent Easement
- Limit of Disturbance
- MLV Site
- Access Road Permanent Easement
- Existing Impervious
- Surveyed Road Edge
- New/Proposed Impervious Road Edge
- 10-foot Contour
- Water Bar Drainage Area
- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Forest
- Impervious
- Turf/Grass
- Agricultural
- Barren
- Brush
- Meadow
- 2-foot Contour

NAD 1983 UTM 17N (feet)

1 in = 100 feet

Mountain Valley Pipeline Project

Mountain Valley PIPELINE

Stormwater Drainage Exhibits

Water Bar 75

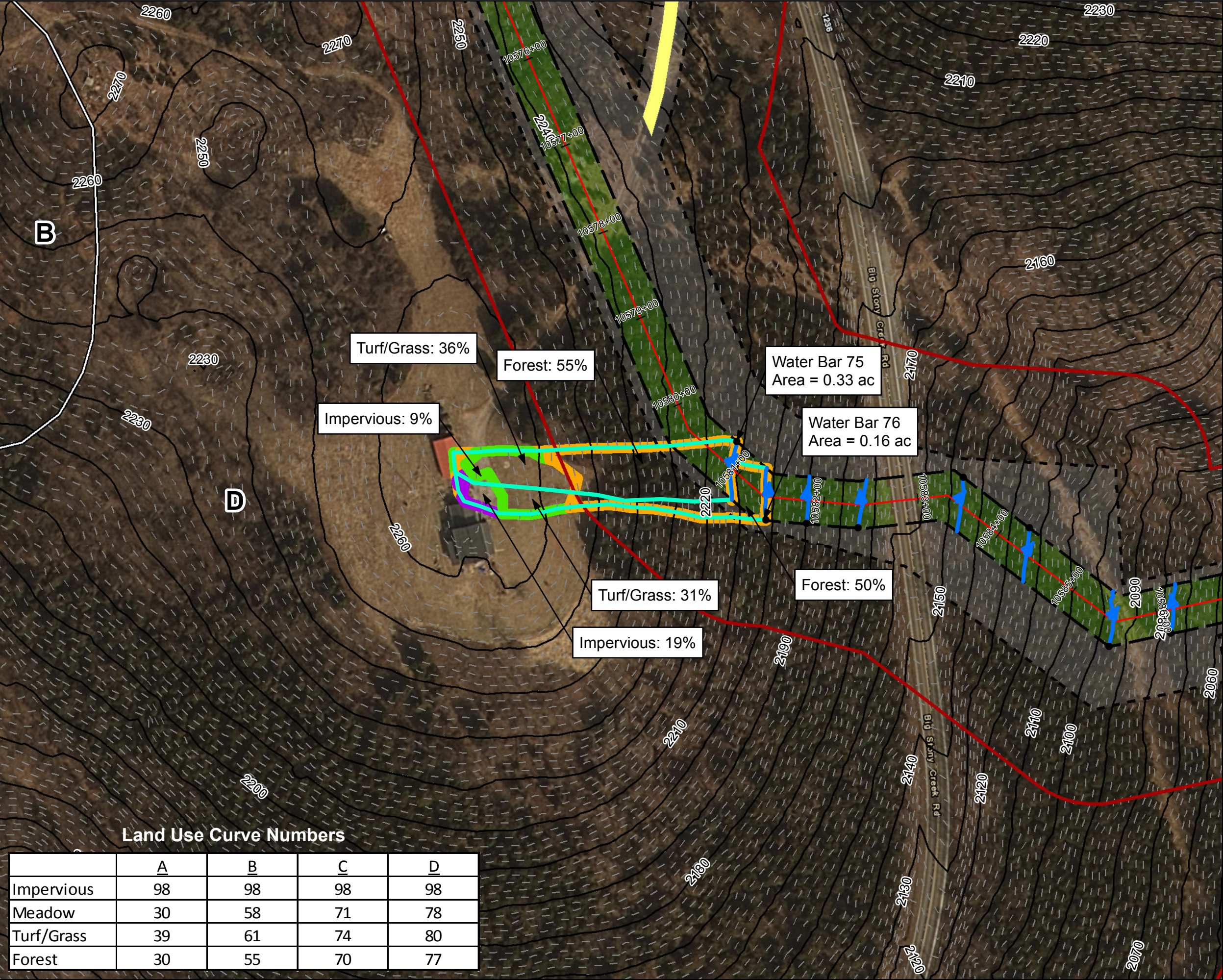
Spread 8

Figure 001

Giles County, Virginia

March, 2018

Data Sources: Imagery from ESRI Streaming Data 2014, Delineated streams surveyed by Tetra Tech Inc. 2014 to 2017, Transportation data from VITA map layer 2016, Elevation data derived from LIDAR provided by EQT 2016, Soils from NRCS Gridded Soil Survey Geographic (SSURGO) database 2014, Land Use digitized from ESRI World Imagery 2015, Agricultural Area from National Land Cover Dataset 2011.



Legend

- Approximate Location of Water Bar End Treatment
- Permanent Water Bar 10-ft End Treatment
- Permanent Water Bar 15-ft End Treatment
- Permanent Water Bar 20-ft End Treatment
- Sheetflow
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- Streams
- Stationing
- Alignment Centerline
- Permanent Easement
- Limit of Disturbance
- MLV Site
- Access Road Permanent Easement
- Existing Impervious
- Surveyed Road Edge
- New/Proposed Impervious Road Edge
- 10-foot Contour
- Water Bar Drainage Area
- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Forest
- Impervious
- Turf/Grass
- Agricultural
- Barren
- Brush
- Meadow
- 2-foot Contour

NAD 1983 UTM 17N (feet)

1 in = 100 feet

100500

500

0

500

1000

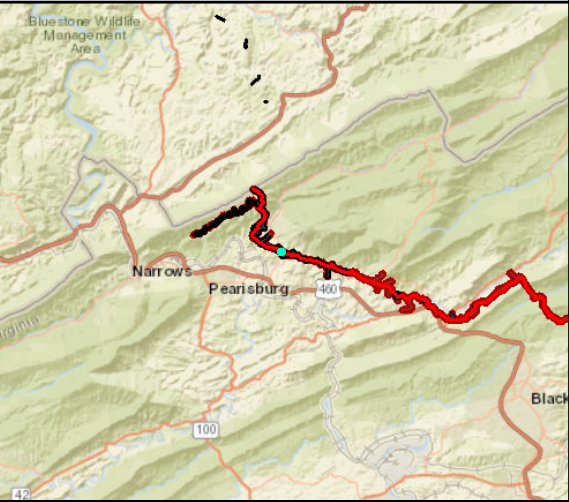
Feet

N

W

E

S



Land Use Curve Numbers

	A	B	C	D
Impervious	98	98	98	98
Meadow	30	58	71	78
Turf/Grass	39	61	74	80
Forest	30	55	70	77

Mountain Valley Pipeline

Stormwater Drainage Exhibits

Water Bar 76

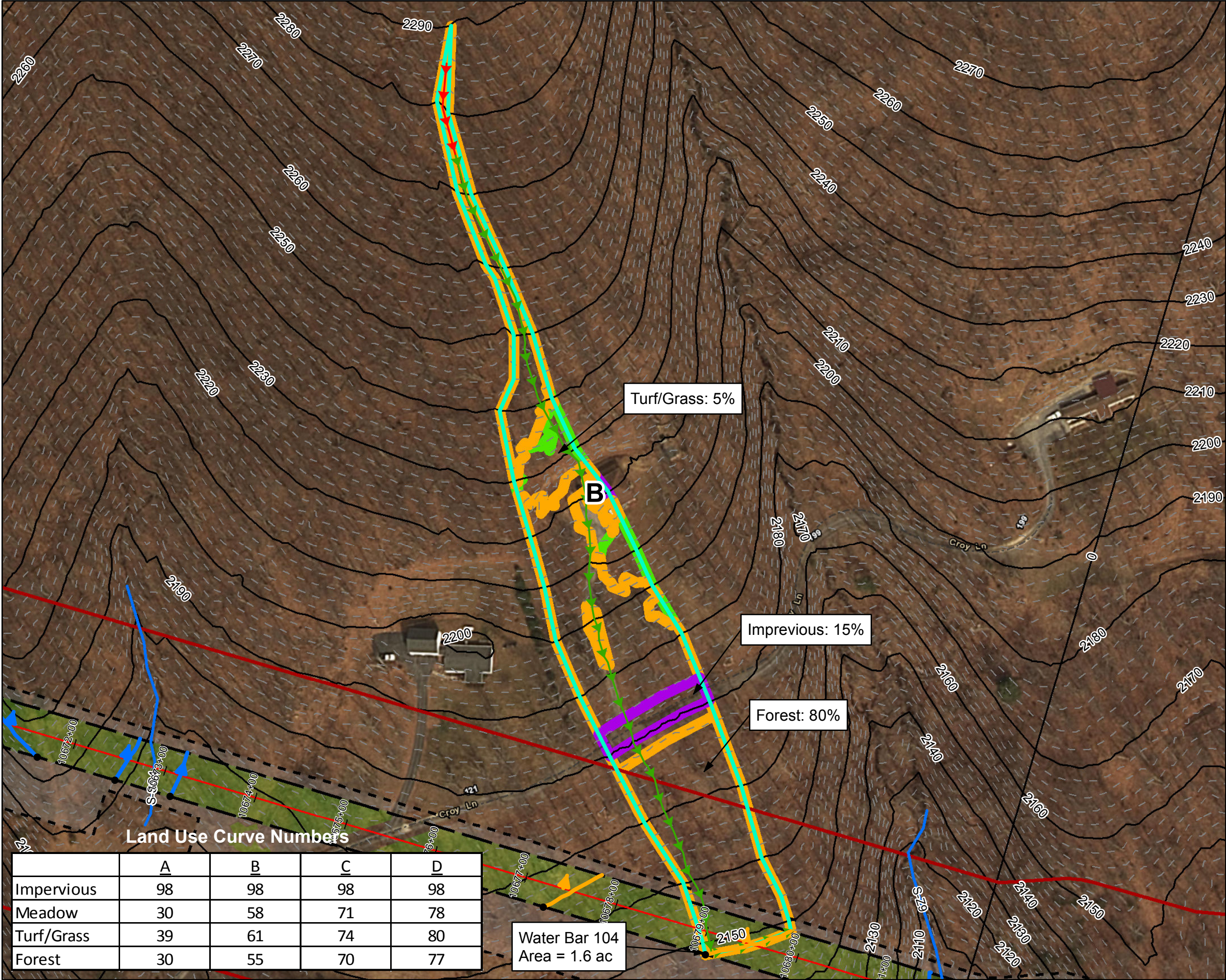
Spread 8

Figure 002

Giles County, Virginia

March, 2018

Data Sources: Imagery from ESRI Streaming Data 2014, Delineated streams surveyed by Tetra Tech Inc. 2014 to 2017, Transportation data from VITA map layer 2016, Elevation data derived from LIDAR provided by EQT 2016, Soils from NRCS Gridded Soil Survey Geographic (SSURGO) database 2014, Land Use digitized from ESRI World Imagery 2015, Agricultural Area from National Land Cover Dataset 2011.



Legend

Approximate Location of Water Bar End Treatment

Permanent Water Bar 10-ft End Treatment

Permanent Water Bar 15-ft End Treatment

Permanent Water Bar 20-ft End Treatment

Sheetflow

Shallow Concentrated Flow

Streams

Stationing

Alignment Centerline

Permanent Easement

Limit of Disturbance

MLV Site

Access Road Permanent Easement

Existing Impervious Surveyed Road Edge

New/Proposed Impervious Road Edge

10-foot Contour

Water Bar Drainage Area

100-year Floodplain

Pond

Wetland

Hydrologic Soil Groups

100 ft Buffer off of Limits of Disturbance

Forest

Impervious

Turf/Grass

Agricultural

Barren

Brush

Meadow

2-foot Contour

NAD 1983 UTM 17N (feet)

1 in = 100 feet

100

50

0

100

Feet


N

W

E

S

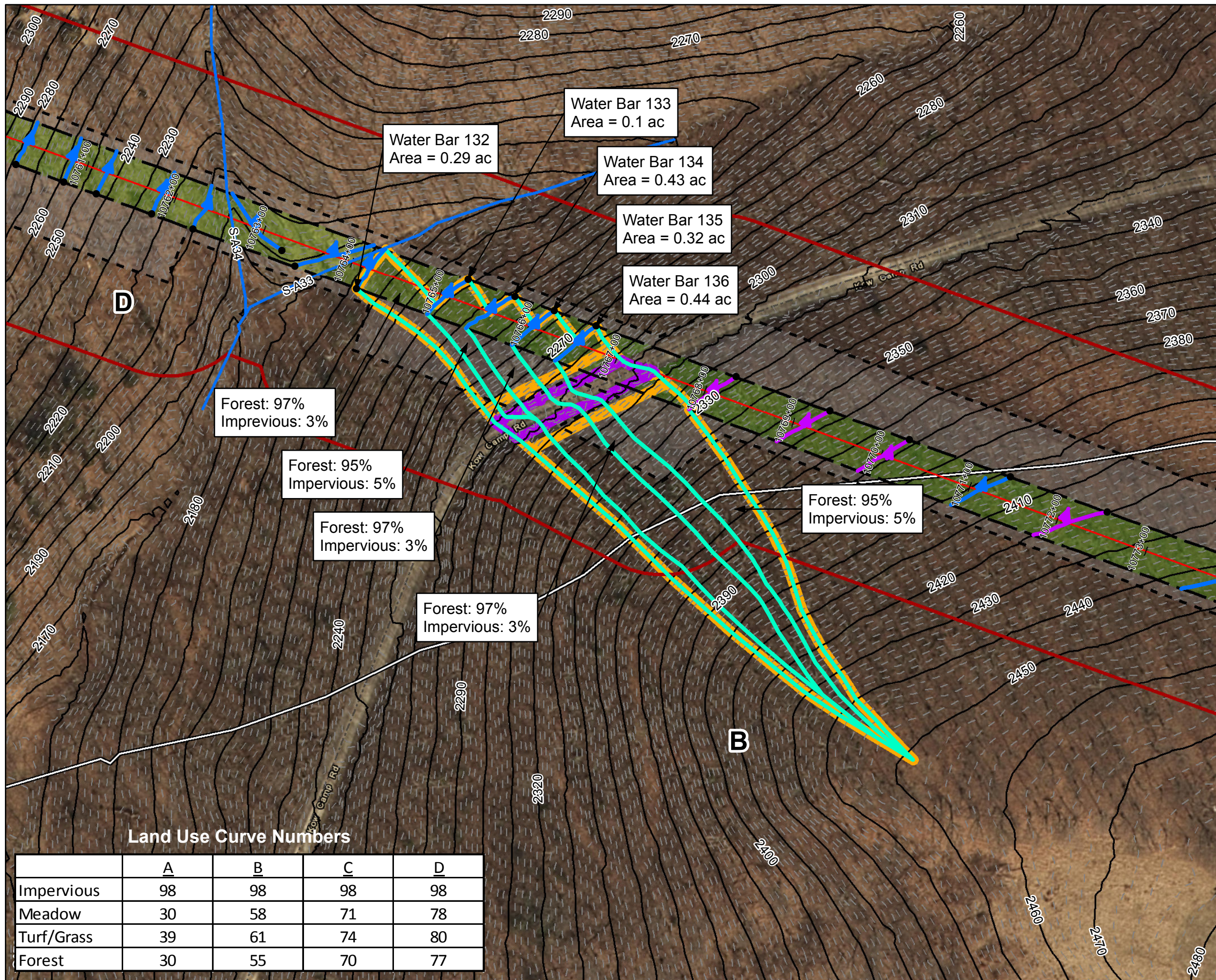
Mountain Valley Pipeline Project



Stormwater Drainage Exhibits
Water Bar 104
Spread 8
Figure 004
Giles County, Virginia
March, 2018

Data Sources: Imagery from ESRI Streaming Data 2014, Delineated streams surveyed by Tetra Tech Inc. 2014 to 2017, Transportation data from VITA map layer 2016, Elevation data derived from LIDAR provided by EQT 2016, Soils from NRCS Gridded Soil Survey Geographic (SSURGO) database 2014, Land Use digitized from ESRI World Imagery 2015, Agricultural Area from National Land Cover Dataset 2011.

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Legend

- Approximate Location of Water Bar End Treatment
- Permanent Water Bar 10-ft End Treatment
- Permanent Water Bar 15-ft End Treatment
- Permanent Water Bar 20-ft End Treatment
- Sheetflow
- Shallow Concentrated Flow
- Streams
- Stationing
- Alignment Centerline
- Permanent Easement
- Limit of Disturbance
- MLV Site
- Access Road Permanent Easement
- Existing Impervious Surveyed Road Edge
- New/Proposed Impervious Road Edge
- 10-foot Contour
- Water Bar Drainage Area
- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Forest
- Impervious
- Turf/Grass
- Agricultural
- Barren
- Brush
- Meadow
- 2-foot Contour

NAD 1983 UTM 17N (feet)

1 in = 100 feet

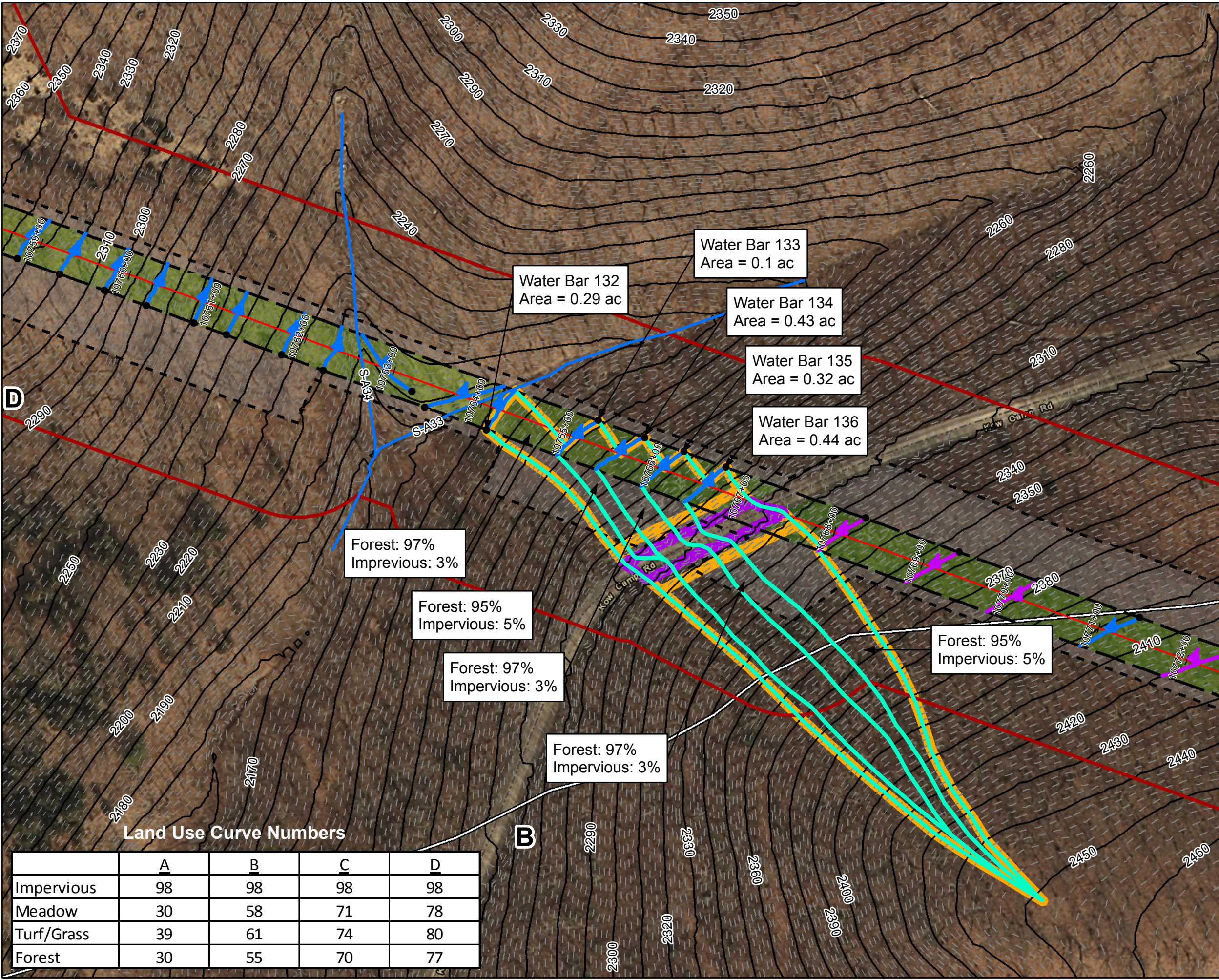
Mountain Valley Pipeline Project

Stormwater Drainage Exhibits
Water Bar 132
Spread 8
Figure 005
Giles County, Virginia
March, 2018

Data Sources: Imagery from ESRI Streaming Data 2014, Delineated streams surveyed by Tetra Tech Inc. 2014 to 2017, Transportation data from VITA map layer 2016, Elevation data derived from LIDAR provided by EQT 2016, Soils from NRCS Gridded Soil Survey Geographic (SSURGO) database 2014, Land Use digitized from ESRI World Imagery 2015, Agricultural Area from National Land Cover Dataset 2011.

Land Use Curve Numbers

	A	B	C	D
Impervious	98	98	98	98
Meadow	30	58	71	78
Turf/Grass	39	61	74	80
Forest	30	55	70	77



Land Use Curve Numbers

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Impervious	98	98	98	98
Meadow	30	58	71	78
Turf/Grass	39	61	74	80
Forest	30	55	70	77

Legend

- Approximate Location of Water Bar End Treatment
- Permanent Water Bar 10-ft End Treatment
- Permanent Water Bar 15-ft End Treatment
- Permanent Water Bar 20-ft End Treatment
- Sheetflow
- Shallow Concentrated Flow
- Streams
- Stationing
- Alignment Centerline
- Permanent Easement
- Limit of Disturbance
- MLV Site
- Access Road Permanent Easement
- Existing Impervious
- Surveyed Road Edge
- New/Proposed Impervious Road Edge
- 10-foot Contour

- Water Bar Drainage Area
- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Forest
- Impervious
- Turf/Grass
- Agricultural
- Barren
- Brush
- Meadow
- 2-foot Contour

NAD 1983 UTM 17N (feet)

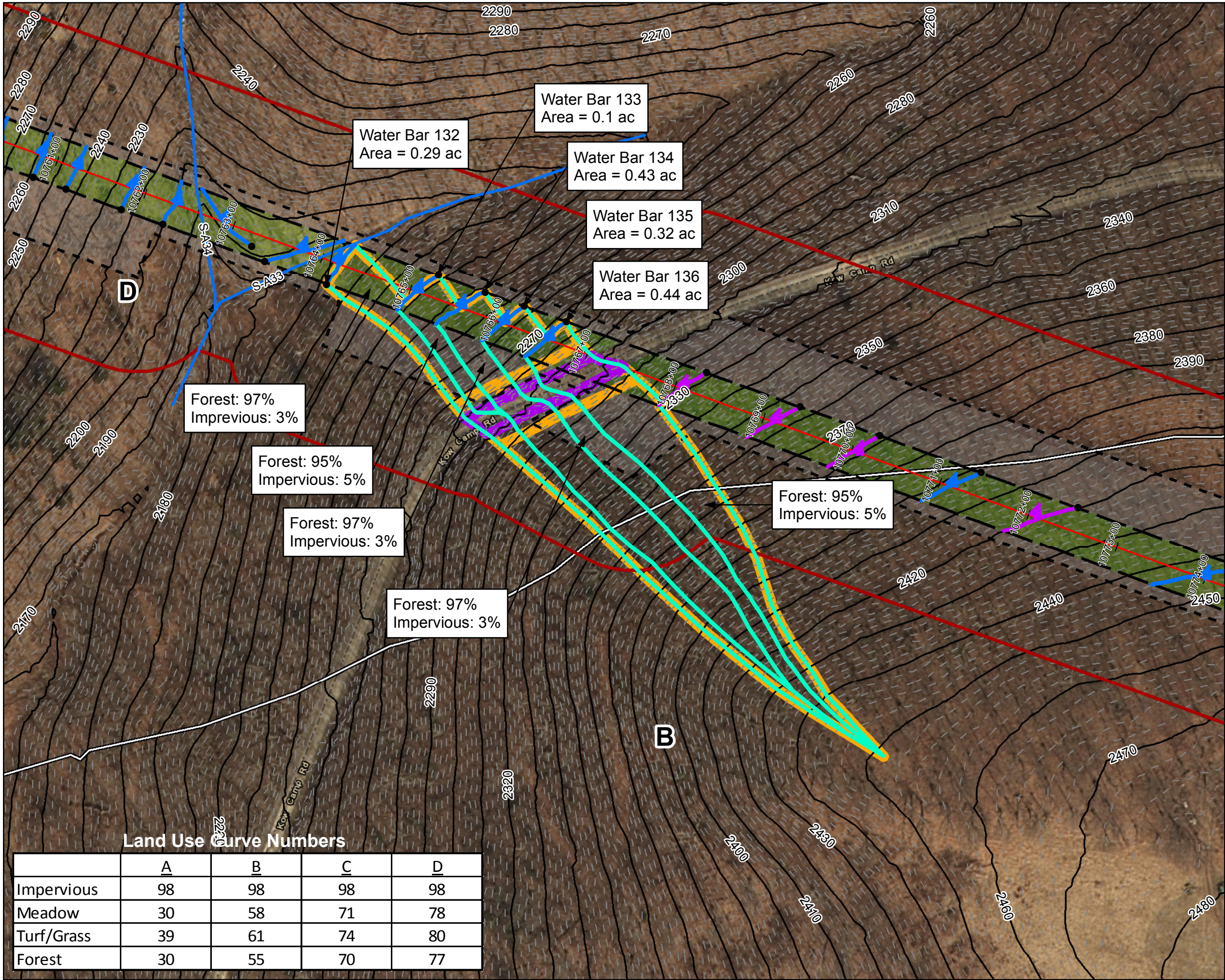
1 in = 100 feet

Mountain Valley Pipeline Project

Stormwater Drainage Exhibits
Water Bar 133
Spread 8
Figure 006
Giles County, Virginia
March, 2018

Data Sources: Imagery from ESRI Streaming Data 2014, Delineated streams surveyed by Tetra Tech Inc. 2014 to 2017, Transportation data from VITA map layer 2016, Elevation data derived from LIDAR provided by EQT 2016, Soils from NRCS Gridded Soil Survey Geographic (SSURGO) database 2014, Land Use digitized from ESRI World Imagery 2015, Agricultural Area from National Land Cover Dataset 2011.

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Legend

- Approximate Location of Water Bar End Treatment
- Permanent Water Bar 10-ft End Treatment
- Permanent Water Bar 15-ft End Treatment
- Permanent Water Bar 20-ft End Treatment
- Sheetflow
- Shallow Concentrated Flow
- Streams
- Stationing
- Alignment Centerline
- Permanent Easement
- Limit of Disturbance
- MLV Site
- Access Road Permanent Easement
- Existing Impervious
- Surveyed Road Edge
- New/Proposed Impervious Road Edge
- 10-foot Contour

- Water Bar Drainage Area
- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Forest
- Impervious
- Turf/Grass
- Agricultural
- Barren
- Brush
- Meadow
- 2-foot Contour

NAD 1983 UTM 17N (feet)

1 in = 100 feet

Mountain Valley Pipeline Project

Mountain Valley
PIPELINE

Stormwater Drainage Exhibits
Water Bar 134
Spread 8

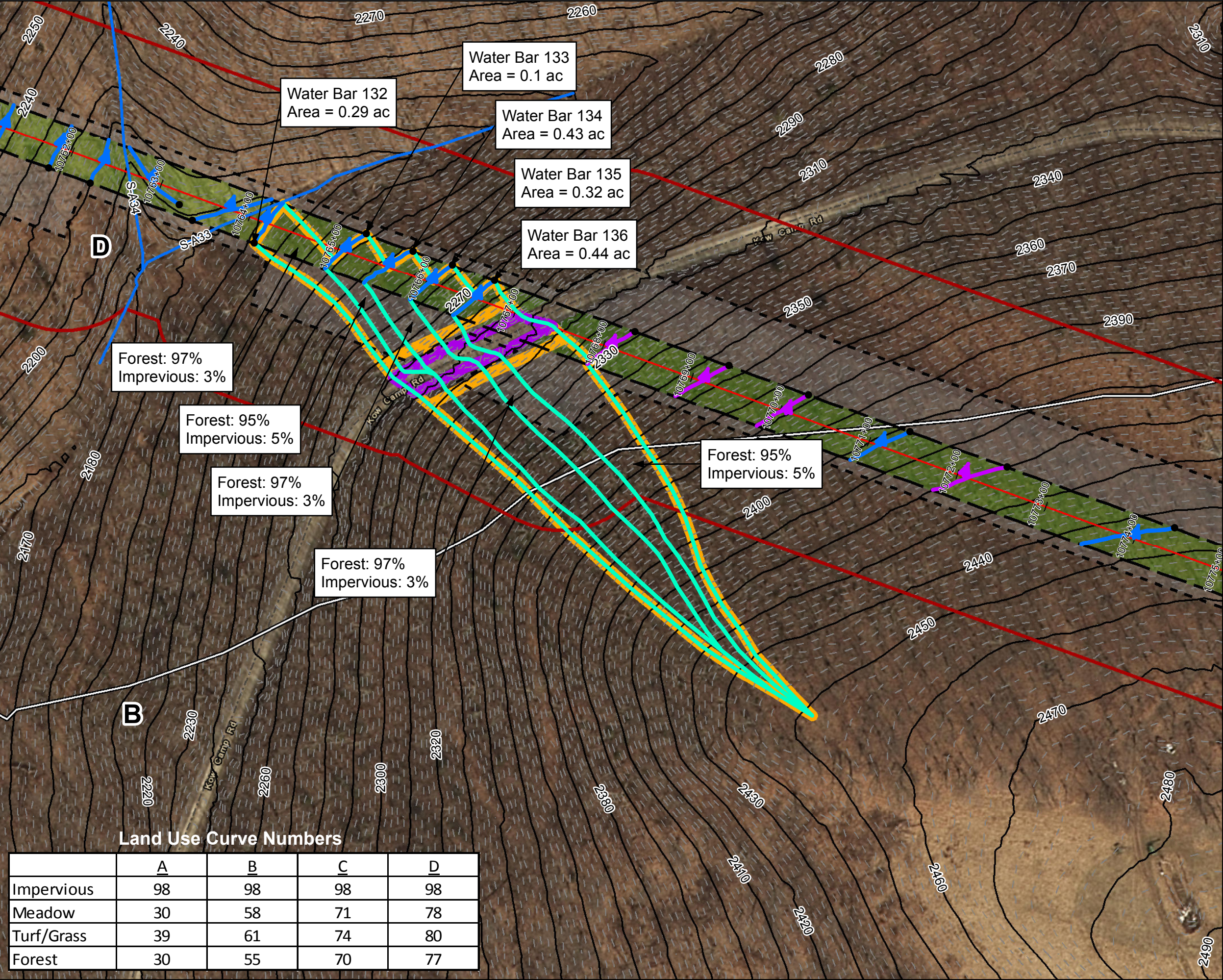
Figure 007
Giles County, Virginia

March, 2018

Data Sources: Imagery from ESRI Streaming Data 2014, Delineated streams surveyed by Tetra Tech Inc. 2014 to 2017, Transportation data from VITA map layer 2016, Elevation data derived from LIDAR provided by EQT 2016, Soils from NRCS Gridded Soil Survey Geographic (SSURGO) database 2014, Land Use digitized from ESRI World Imagery 2015, Agricultural Area from National Land Cover Dataset 2011.

Land Use Curve Numbers

	A	B	C	D
Impervious	98	98	98	98
Meadow	30	58	71	78
Turf/Grass	39	61	74	80
Forest	30	55	70	77



Legend

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- Permanent Water Bar 15-ft End Treatment
- Permanent Water Bar 20-ft End Treatment
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- Shallow Concentrated Flow
- Streams
- Stationing
- Alignment Centerline
- Permanent Easement
- Limit of Disturbance
- MLV Site
- Access Road Permanent Easement
- Existing Impervious Surveyed Road Edge
- New/Proposed Impervious Road Edge
- 10-foot Contour

- Water Bar Drainage Area
- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Forest
- Impervious
- Turf/Grass
- Agricultural
- Barren
- Brush
- Meadow
- 2-foot Contour

NAD 1983 UTM 17N (feet)

1 in = 100 feet

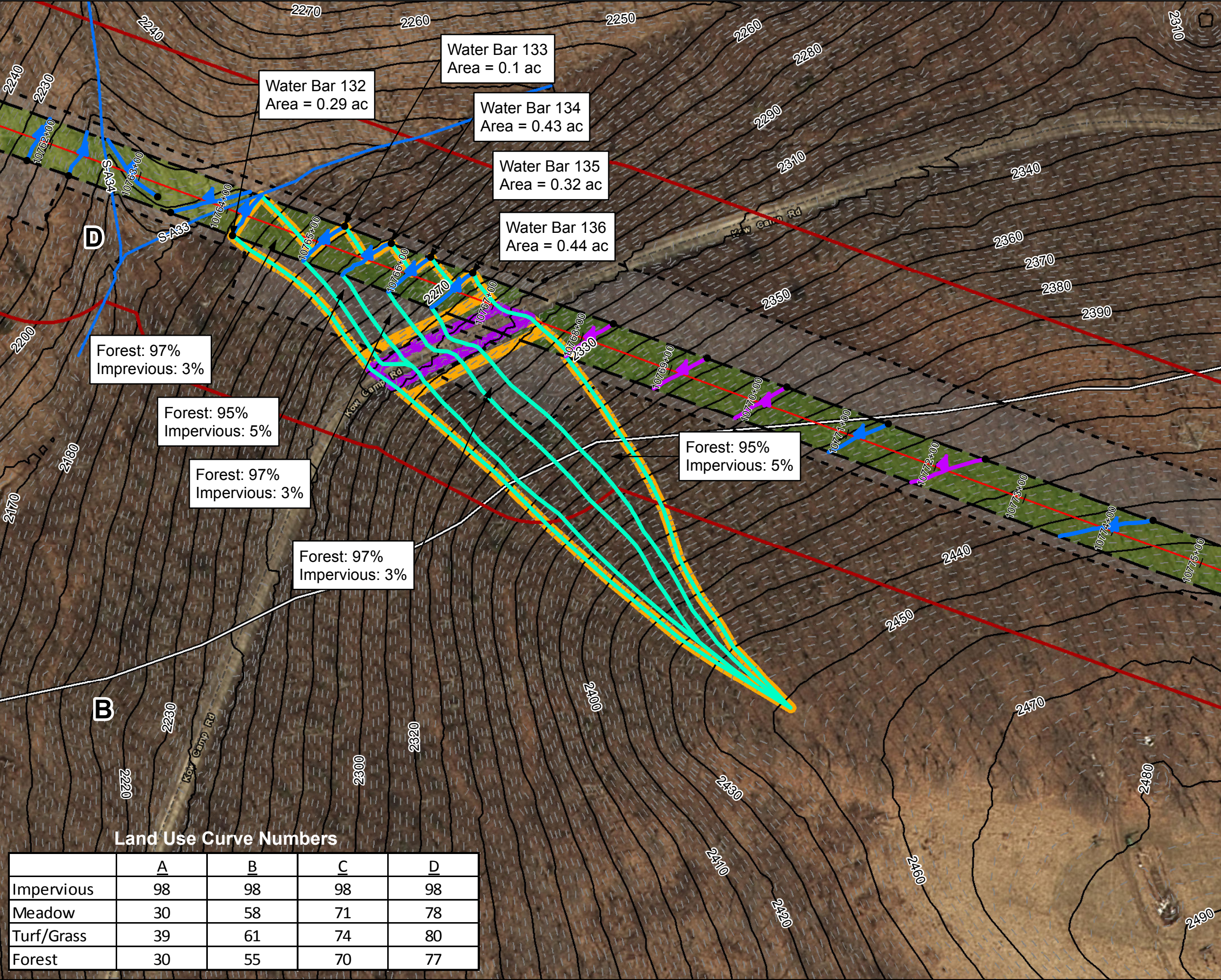
Mountain Valley Pipeline Project

Stormwater Drainage Exhibits
Water Bar 135
Spread 8
Figure 008
Giles County, Virginia
March, 2018

Data Sources: Imagery from ESRI Streaming Data 2014, Delineated streams surveyed by Tetra Tech Inc. 2014 to 2017, Transportation data from VITA map layer 2016, Elevation data derived from LIDAR provided by EQT 2016, Soils from NRCS Gridded Soil Survey Geographic (SSURGO) database 2014, Land Use digitized from ESRI World Imagery 2015, Agricultural Area from National Land Cover Dataset 2011.

Land Use Curve Numbers

	A	B	C	D
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Turf/Grass	39	61	74	80
Forest	30	55	70	77



Legend

- Approximate Location of Water Bar End Treatment
- Permanent Water Bar 10-ft End Treatment
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- Permanent Water Bar 20-ft End Treatment
- Sheetflow
- Shallow Concentrated Flow
- Streams
- Stationing
- Alignment Centerline
- Permanent Easement
- Limit of Disturbance
- MLV Site
- Access Road Permanent Easement
- Existing Impervious Surveyed Road Edge
- New/Proposed Impervious Road Edge
- 10-foot Contour

- Water Bar Drainage Area
- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Forest
- Impervious
- Turf/Grass
- Agricultural
- Barren
- Brush
- Meadow
- 2-foot Contour

NAD 1983 UTM 17N (feet)

1 in = 100 feet

Mountain Valley Pipeline Project

Stormwater Drainage Exhibits
Water Bar 136
Spread 8
Figure 009
Giles County, Virginia
March, 2018

Data Sources: Imagery from ESRI Streaming Data 2014, Delineated streams surveyed by Tetra Tech Inc. 2014 to 2017, Transportation data from VITA map layer 2016, Elevation data derived from LIDAR provided by EQT 2016, Soils from NRCS Gridded Soil Survey Geographic (SSURGO) database 2014, Land Use digitized from ESRI World Imagery 2015, Agricultural Area from National Land Cover Dataset 2011.