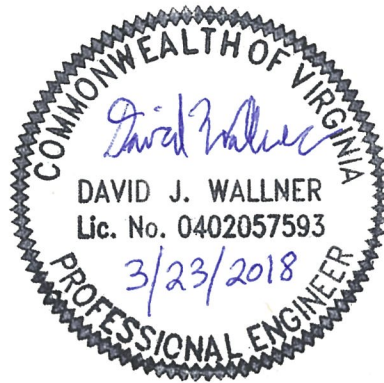
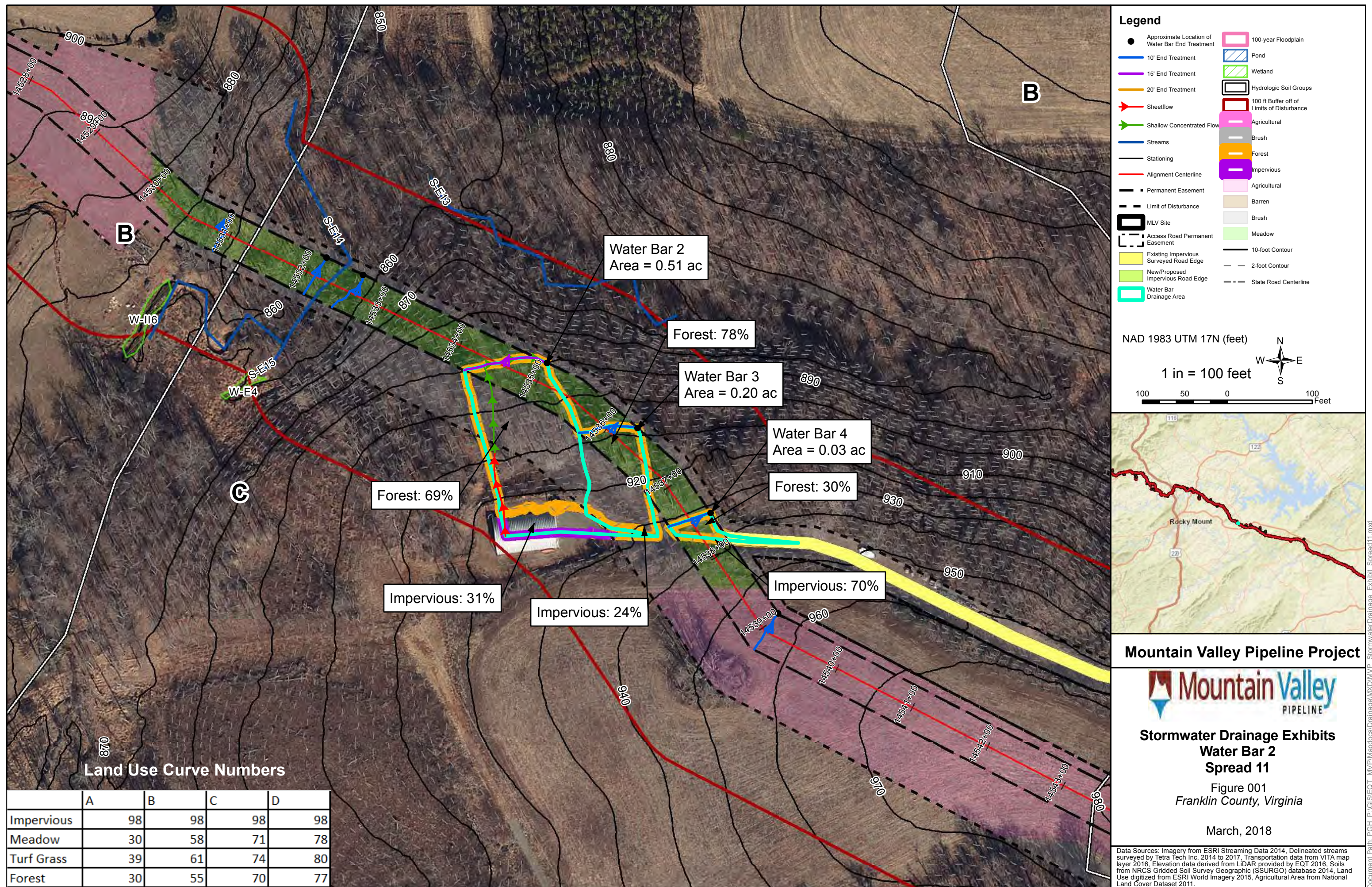


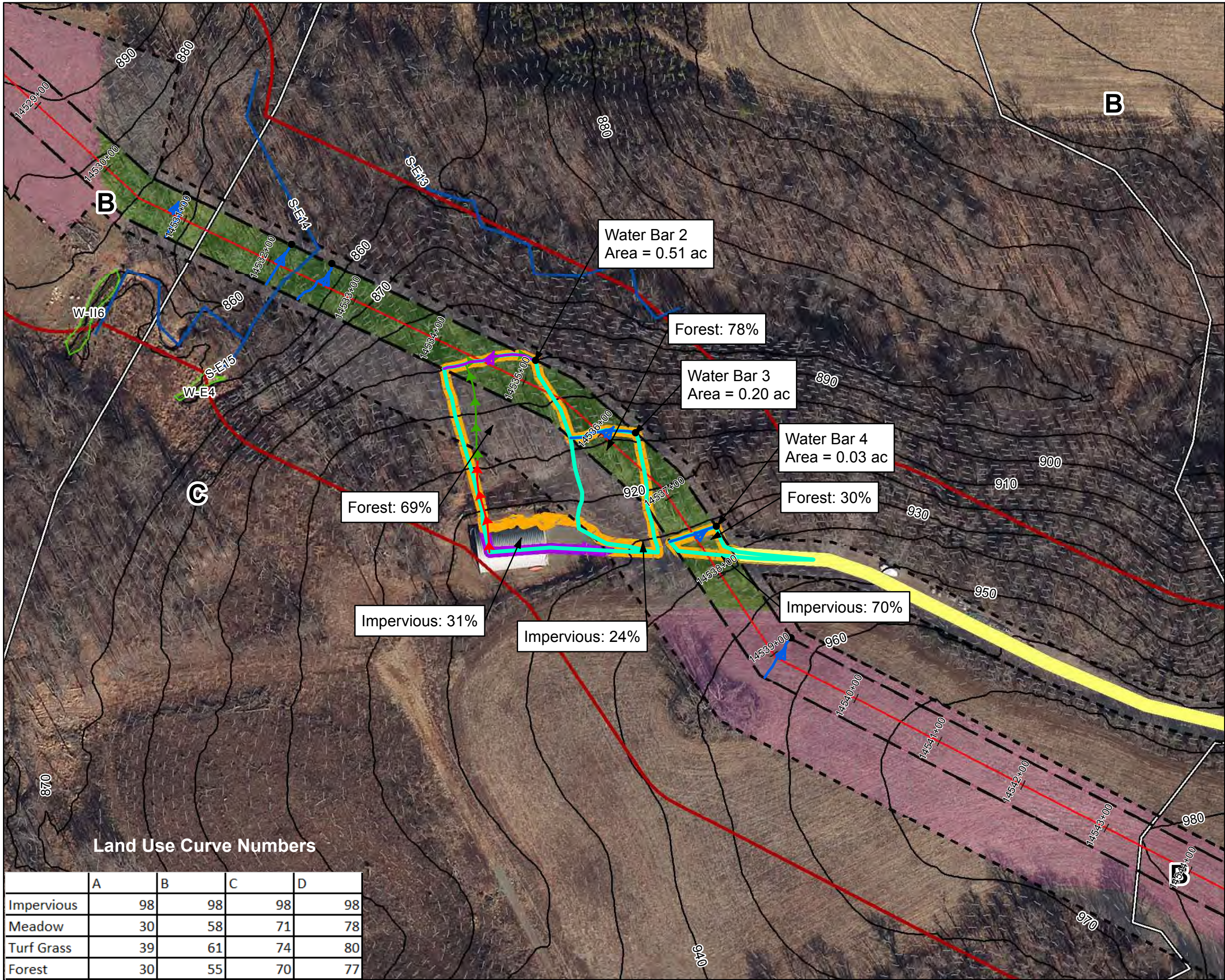
By virtue of this seal and signature, all supporting documents included in this package are accurate and support the design presented herein.











**Legend**

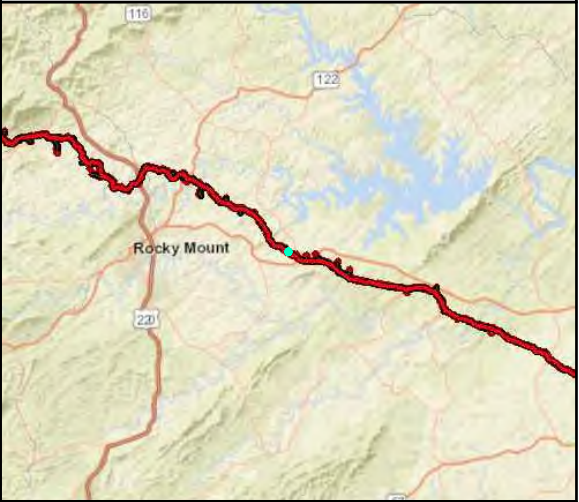
- Approximate Location of Water Bar End Treatment
- 10' End Treatment
- 15' End Treatment
- 20' End Treatment
- Sheetflow
- Shallow Concentrated Flow
- Streams
- Stationing
- Alignment Centerline
- Permanent Easement
- Limit of Disturbance
- MLV Site
- Access Road Permanent Easement
- Existing Impervious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

NAD 1983 UTM 17N (feet)

1 in = 100 feet

100 50 0 100 Feet

North Arrow



**Mountain Valley Pipeline Project**

**Stormwater Drainage Exhibits**

**Water Bar 3**

**Spread 11**

Figure 002

Franklin County, Virginia

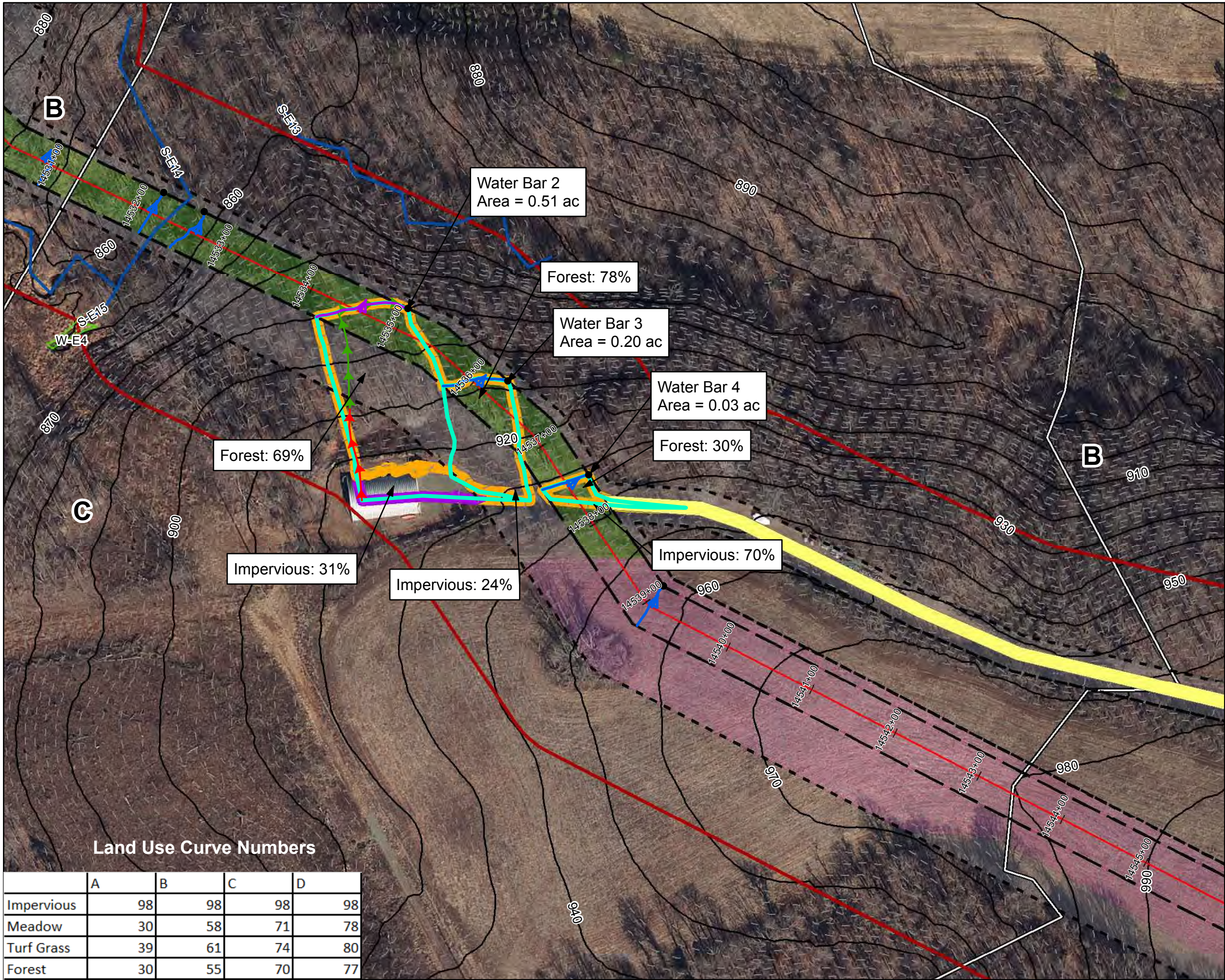
March, 2018

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**

- Approximate Location of Water Bar End Treatment
- 10' End Treatment
- 15' End Treatment
- 20' 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
- Water Bar Drainage Area

- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Agricultural
- Brush
- Forest
- Impervious
- Agricultural
- Barren
- Brush
- Meadow
- 10-foot Contour
- 2-foot Contour
- State Road Centerline

NAD 1983 UTM 17N (feet)

1 in = 100 feet

100 50 0 100 Feet

**Mountain Valley Pipeline Project**

**Stormwater Drainage Exhibits**  
**Water Bar 4**  
**Spread 11**

Figure 003  
Franklin County, Virginia

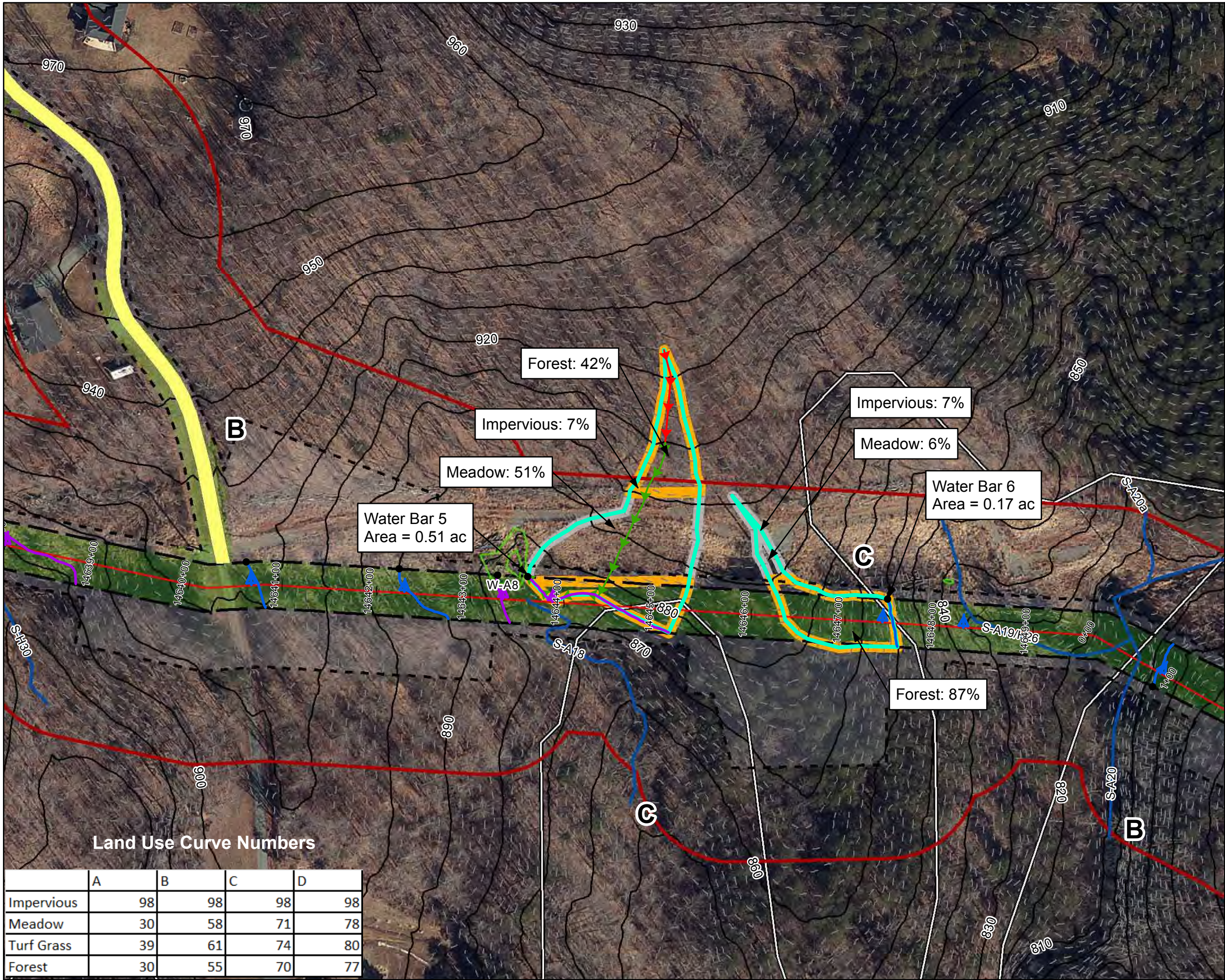
March, 2018

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**

- Approximate Location of Water Bar End Treatment
- 10' End Treatment
- 15' End Treatment
- 20' 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
- Water Bar Drainage Area

- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Agricultural
- Brush
- Forest
- Impervious
- Agricultural
- Barren
- Brush
- Meadow
- 10-foot Contour
- 2-foot Contour
- State Road Centerline

NAD 1983 UTM 17N (feet)

1 in = 100 feet

**Mountain Valley Pipeline Project**

**Mountain Valley PIPELINE**

**Stormwater Drainage Exhibits**

**Water Bar 5**

**Spread 11**

Figure 004

Franklin County, Virginia

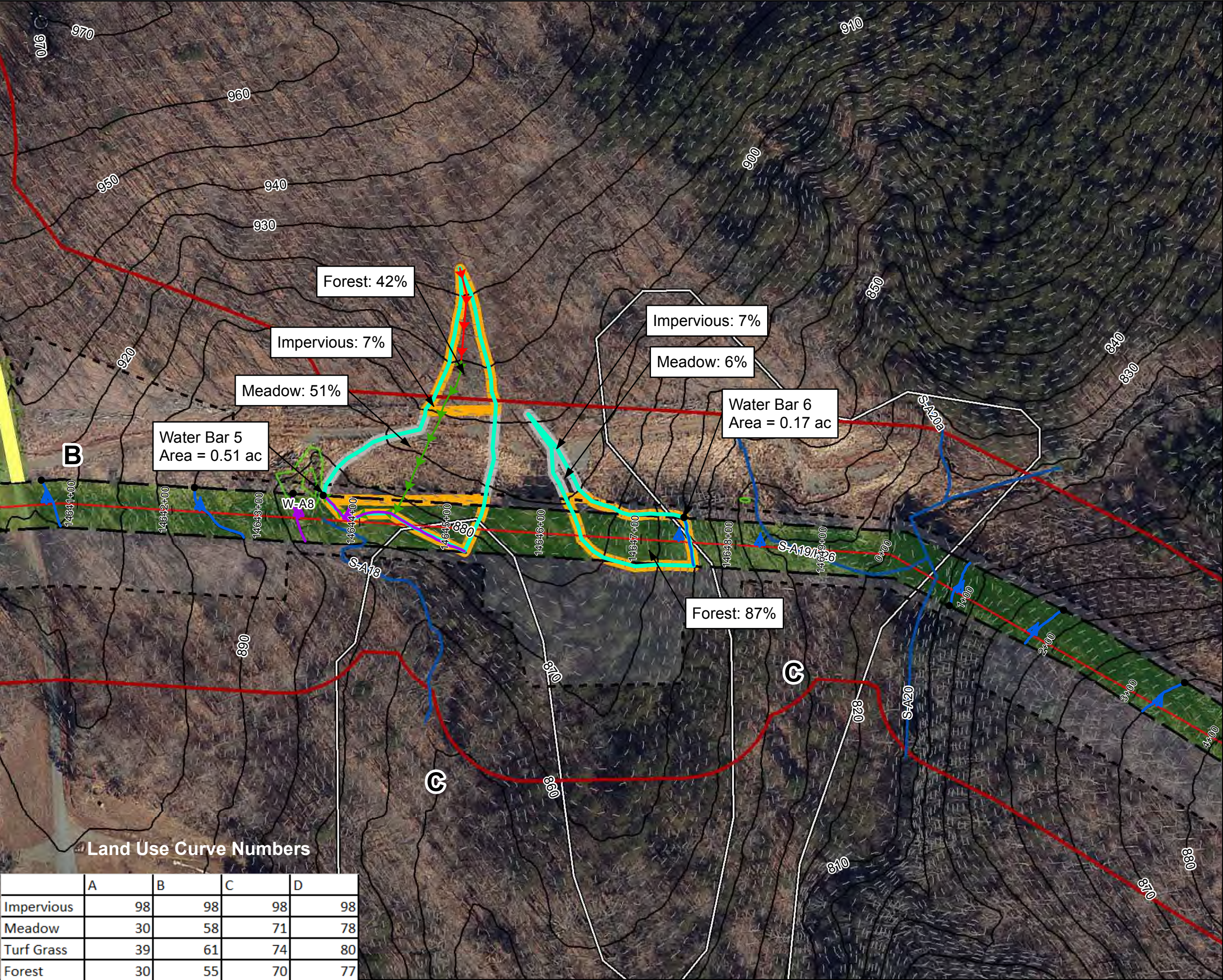
March, 2018

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





	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**

- Approximate Location of Water Bar End Treatment
- 10' End Treatment
- 15' End Treatment
- 20' 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
- Water Bar Drainage Area

- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Agricultural
- Brush
- Forest
- Impervious
- Agricultural
- Barren
- Brush
- Meadow
- 10-foot Contour
- 2-foot Contour
- State Road Centerline

NAD 1983 UTM 17N (feet)

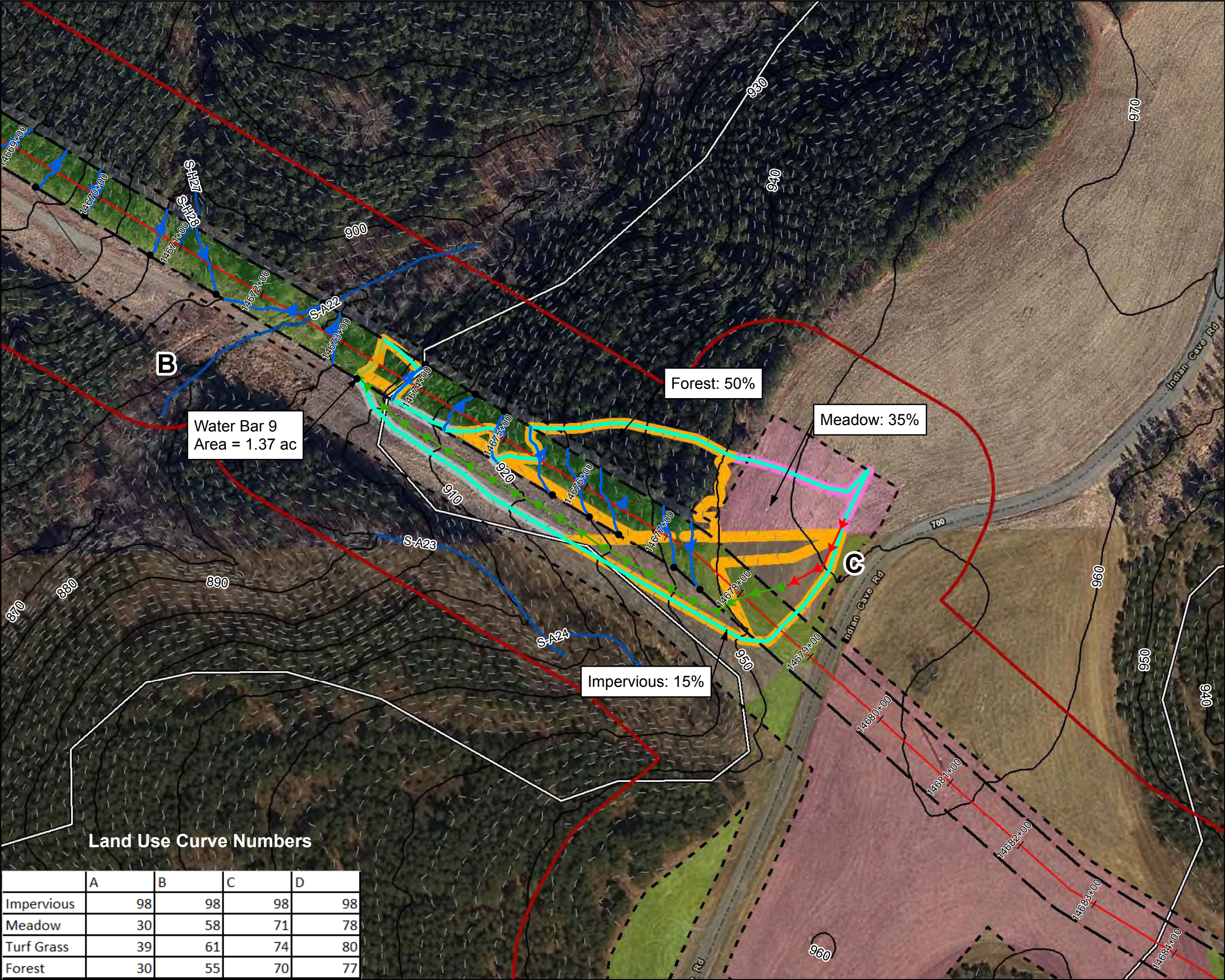
1 in = 100 feet

**Mountain Valley Pipeline Project**

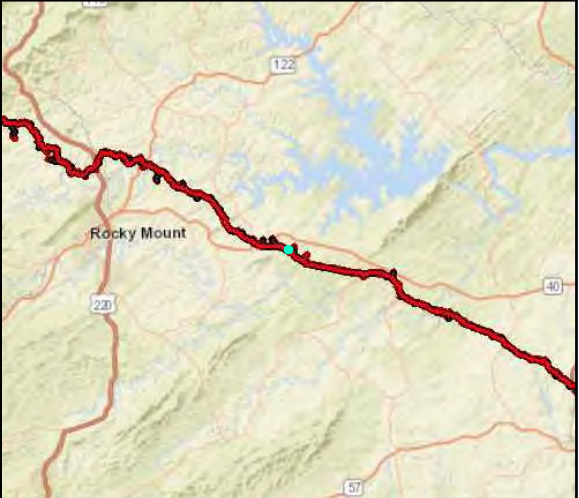
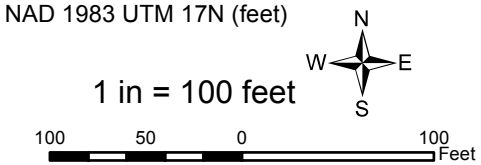
**Stormwater Drainage Exhibits**  
**Water Bar 6**  
**Spread 11**  
Figure 005  
Franklin County, Virginia  
March, 2018

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
  - 10' End Treatment
  - 15' End Treatment
  - 20' 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
  - Water Bar Drainage Area
  - 100-year Floodplain
  - Pond
  - Wetland
  - Hydrologic Soil Groups
  - 100 ft Buffer off of Limits of Disturbance
  - Agricultural
  - Brush
  - Forest
  - Impervious
  - Agricultural
  - Barren
  - Brush
  - Meadow
  - 10-foot Contour
  - 2-foot Contour
  - State Road Centerline



**Mountain Valley Pipeline Project**



**Stormwater Drainage Exhibits**  
**Water Bar 9**  
**Spread 11**

Figure 006  
Franklin County, Virginia

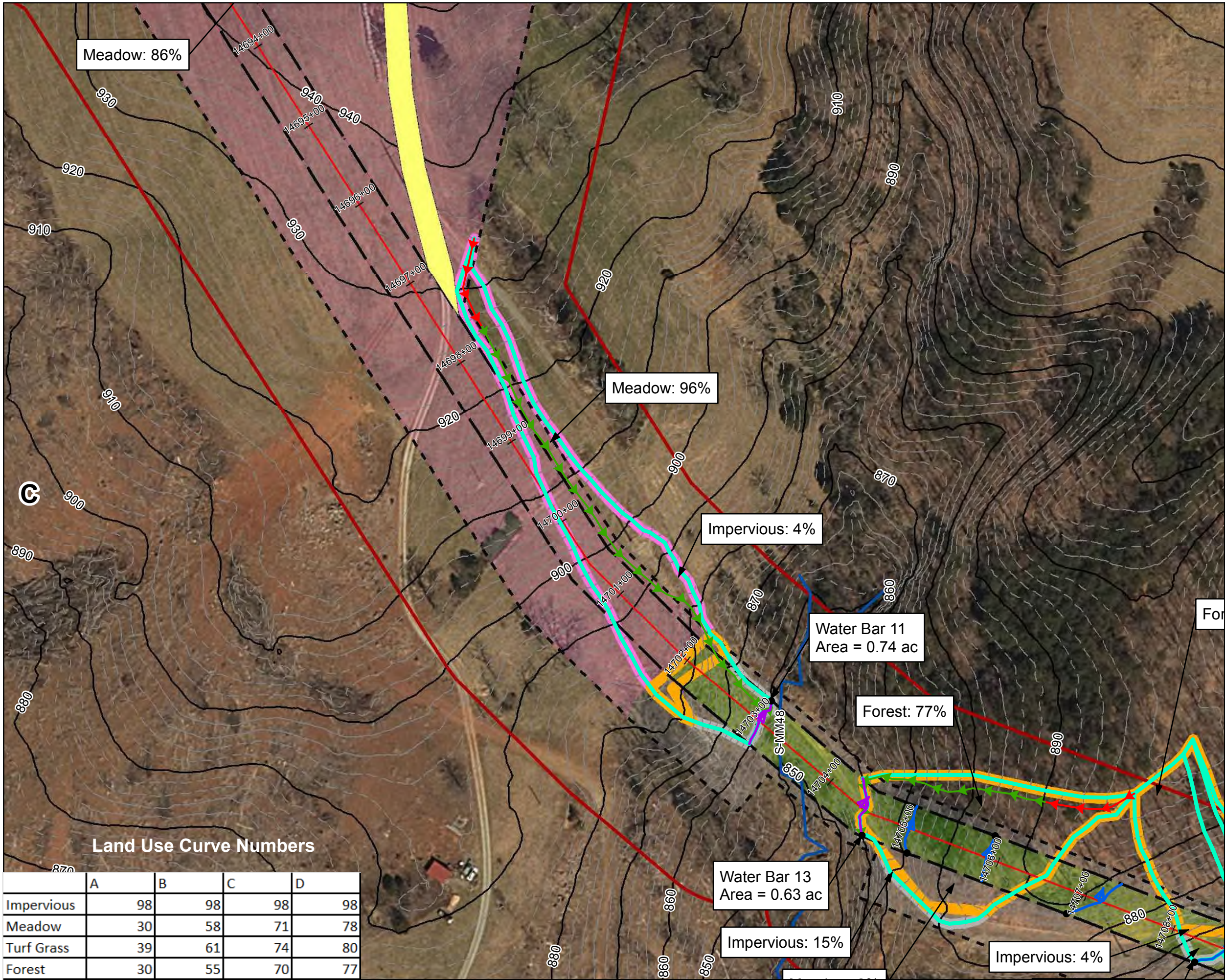
March, 2018

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
- 10' End Treatment
- 15' End Treatment
- 20' 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
- Water Bar Drainage Area
- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Agricultural
- Brush
- Forest
- Impervious
- Agricultural
- Barren
- Brush
- Meadow
- 10-foot Contour
- 2-foot Contour
- State Road Centerline

NAD 1983 UTM 17N (feet)

1 in = 100 feet

**Mountain Valley Pipeline Project**

**Stormwater Drainage Exhibits**

**Water Bar 11**

**Spread 11**

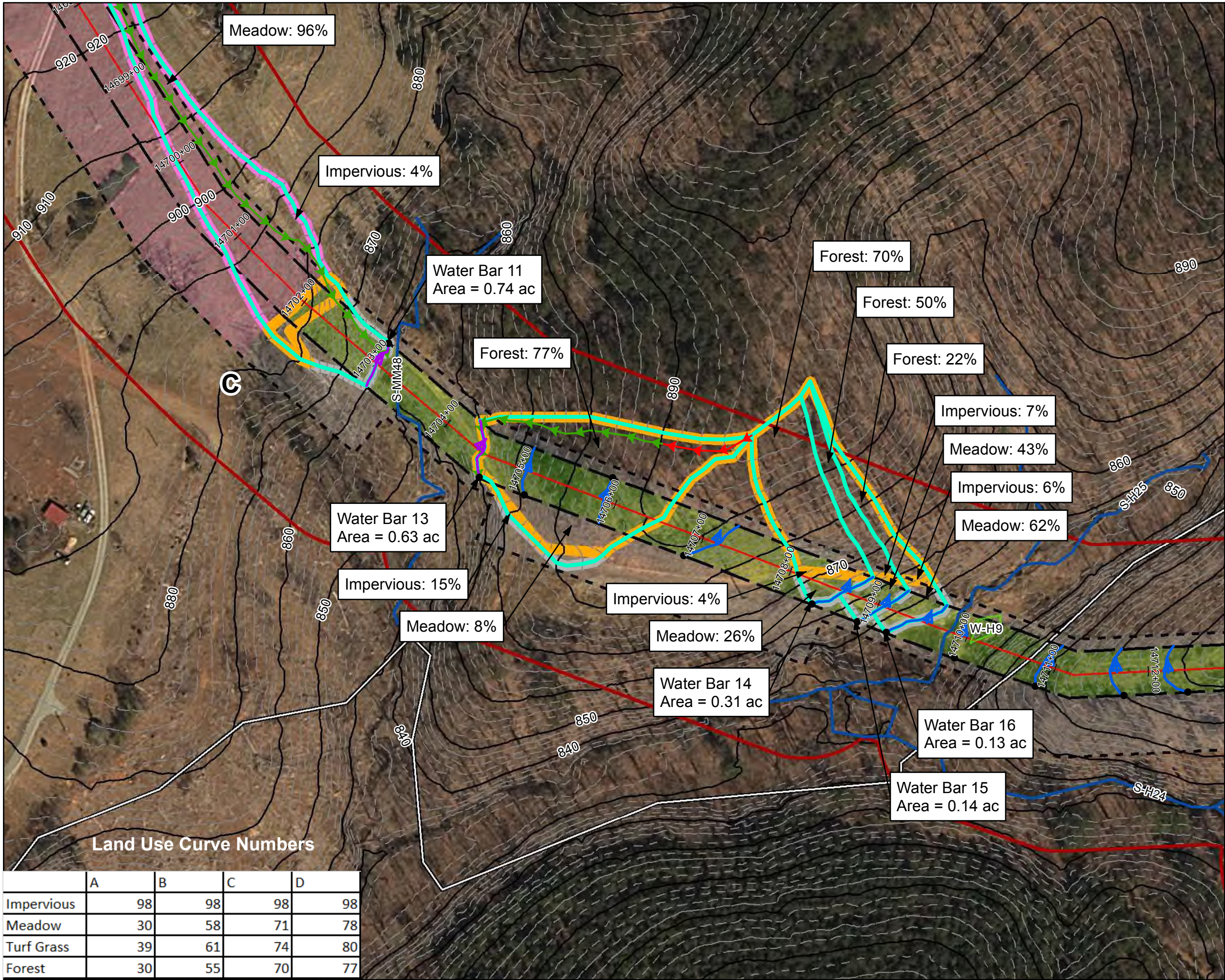
Figure 008

Franklin 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
- 10' End Treatment
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- 20' 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
- Water Bar Drainage Area

- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Agricultural
- Brush
- Forest
- Impervious
- Agricultural
- Barren
- Brush
- Meadow
- 10-foot Contour
- 2-foot Contour
- State Road Centerline

NAD 1983 UTM 17N (feet)

1 in = 100 feet

100 50 0 100 Feet

**Mountain Valley Pipeline Project**

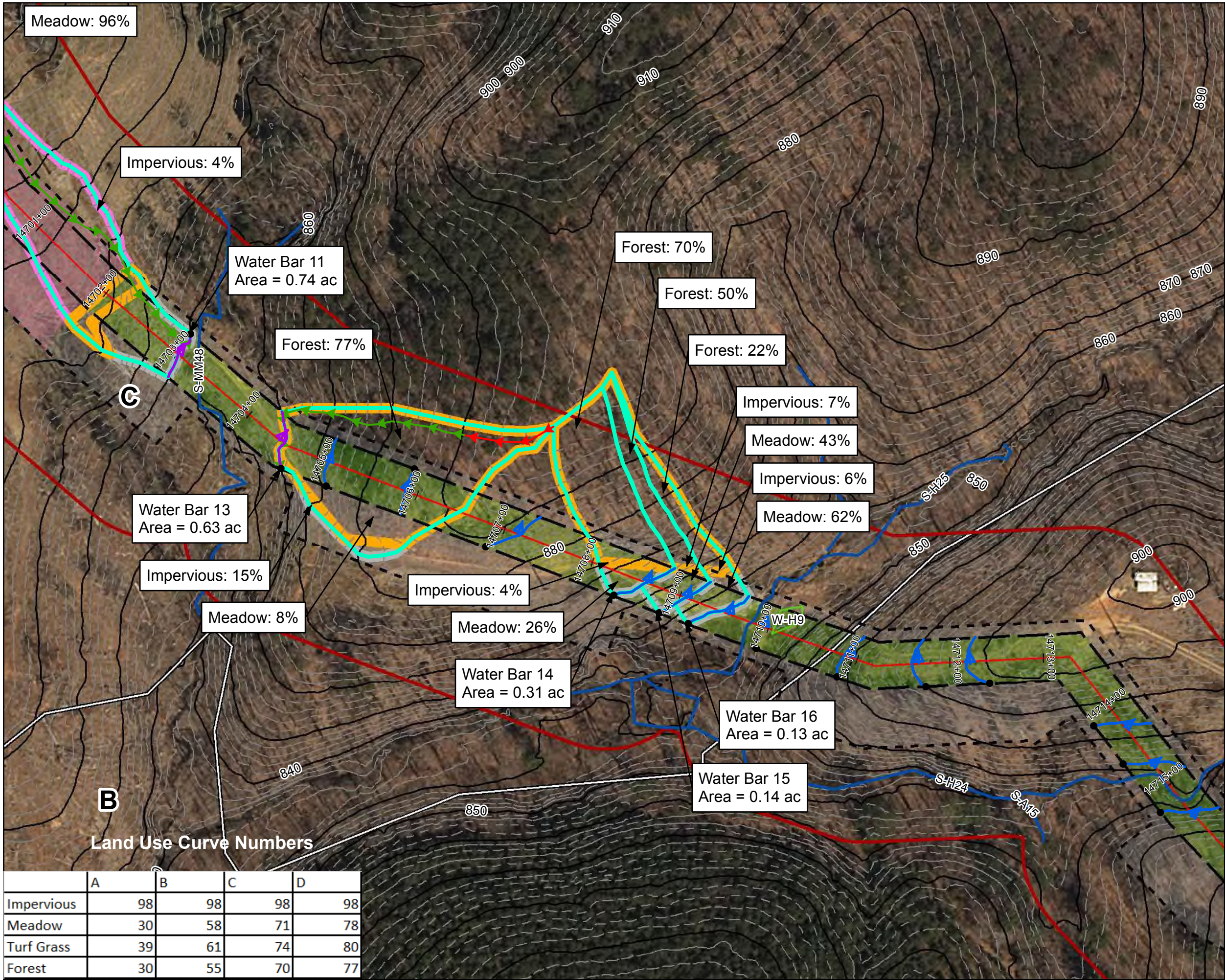
**Stormwater Drainage Exhibits**  
**Water Bar 13**  
**Spread 11**  
Figure 009  
*Franklin County, Virginia*

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.

	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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- 10' End Treatment
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- Sheetflow
- Shallow Concentrated Flow
- Streams
- Stationing
- Alignment Centerline
- Permanent Easement
- Limit of Disturbance
- MLV Site
- Access Road Permanent Easement
- Existing Impervious Surveyed Road Edge
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- Water Bar Drainage Area

- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Agricultural
- Brush
- Forest
- Impervious
- Agricultural
- Barren
- Brush
- Meadow
- 10-foot Contour
- 2-foot Contour
- State Road Centerline

NAD 1983 UTM 17N (feet)

1 in = 100 feet

100 50 0 100 Feet

**Mountain Valley Pipeline Project**

**Mountain Valley PIPELINE**

**Stormwater Drainage Exhibits**

**Water Bar 14**

**Spread 11**

Figure 010

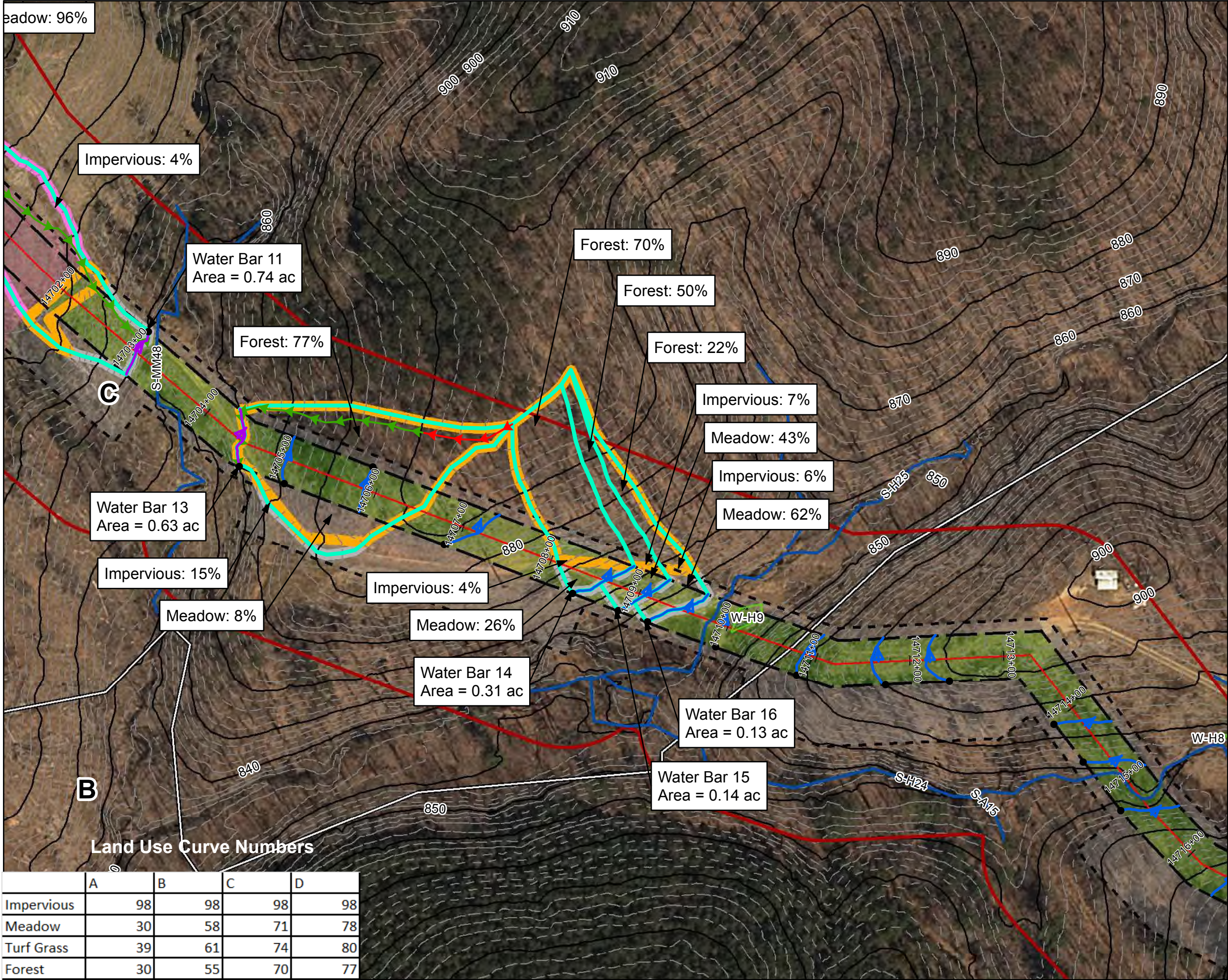
Franklin County, Virginia

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.

	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**

- Approximate Location of Water Bar End Treatment
- 10' End Treatment
- 15' End Treatment
- 20' 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
- Water Bar Drainage Area
- 100-year Floodplain
- Pond
- Wetland
- Hydrologic Soil Groups
- 100 ft Buffer off of Limits of Disturbance
- Agricultural
- Brush
- Forest
- Impervious
- Agricultural
- Barren
- Brush
- Meadow
- 10-foot Contour
- 2-foot Contour
- State Road Centerline

NAD 1983 UTM 17N (feet)

1 in = 100 feet

100 50 0 100 Feet

**Mountain Valley Pipeline Project**

**Mountain Valley PIPELINE**

**Stormwater Drainage Exhibits**

**Water Bar 15**

**Spread 11**

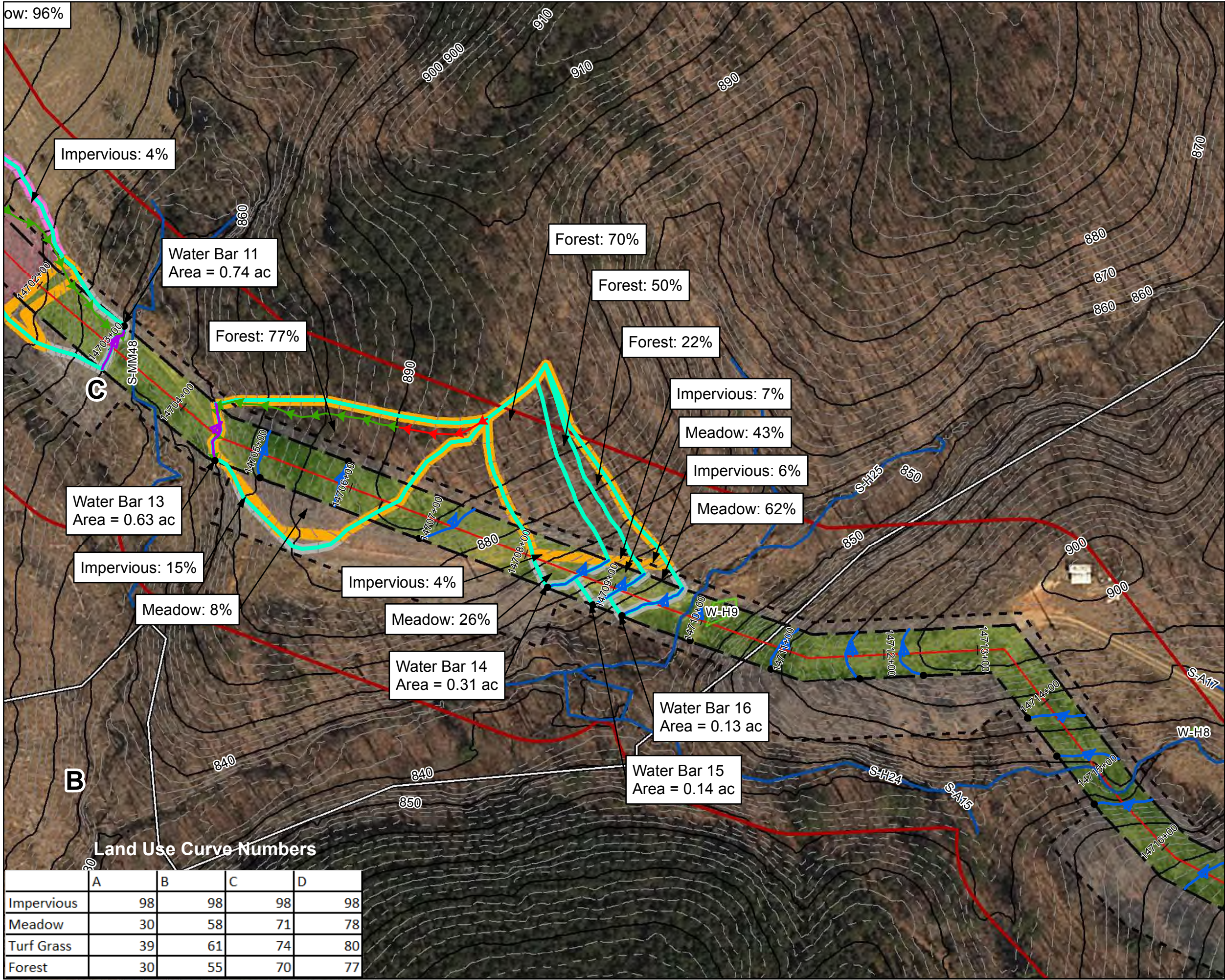
Figure 011

Franklin 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
- 10' End Treatment
- 15' End Treatment
- 20' End Treatment
- Sheetflow
- Shallow Concentrated Flow
- Streams
- Stationing
- Alignment Centerline
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- 100-year Floodplain
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- Brush
- Forest
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- Agricultural
- Barren
- Brush
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- 10-foot Contour
- 2-foot Contour
- State Road Centerline

NAD 1983 UTM 17N (feet)

1 in = 100 feet

100 50 0 100 Feet

**Mountain Valley Pipeline Project**

**Mountain Valley PIPELINE**

**Stormwater Drainage Exhibits**

**Water Bar 16**

**Spread 11**

Figure 012

Franklin 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.



