



# Stream Geomorphic Assessment

Agency of Natural Resources



Vermont.gov  
June, 25 2024

## Phase 2 - FIT - Legacy Data Report

## Black Creek Head

SGAT Version: **4.56**

Reach: **M9T8.1S1.02 -D**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>0.0</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>128.3</b>	<b>36.7</b>
	Erosion Height (ft.):	<b>2.1</b>	<b>3.0</b>
	Revetment Type:	<b>None</b>	<b>None</b>
	Revetment length	<b>0.0</b>	<b>0.0</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>0</b>	<b>0</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:	<b>None</b>	
	Average Heigh (ft.):		
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>4</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow	Road Ditch
	Field Ditch	Tile Drain
	Other	Ub Strm Wtr Pipe
4.9	Beaver Dams:	<b>2</b>
	Affected length (ft.):	<b>75.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>3</b>
	Neck Cutoffs:	<b>1</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>1</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>95.5</b>
	Dredging:	<b>None</b>



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Reach: **M9T8.01 -C**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>323.8</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>0.0</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>236.3</b>	<b>162.6</b>
	Erosion Height (ft.):	<b>5.0</b>	<b>3.0</b>
	Revetment Type:	<b>None</b>	<b>None</b>
	Revetment length	<b>0.0</b>	<b>0.0</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>0</b>	<b>97</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:	<b>None</b>	
	Average Heigh (ft.):		
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>1</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow	Road Ditch
	Field Ditch	Tile Drain
	Other	Ub Strm Wtr Pipe
4.9	Beaver Dams:	<b>0</b>
	Affected length (ft.):	<b>0.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>1</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>1</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>1,027.7</b>
	Dredging:	<b>None</b>



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Reach: **M6T6.06 -0**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:		
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):		
	Path Length (ft.):		
	Road Length (ft.):		
	Railroad Lenth (ft.):		
	Development Length:		
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):		
	Erosion Height (ft.):		
	Revetment Type:		
	Revetment length		
3.2	<u>Buffer Less Than 25 ft.</u>		
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:		
	Average Heigh (ft.):		
	Gullies:		
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	
4.5	Flow Regulation Type:	
	Use:	
4.7	Stormwater Inputs	
	Overland Flow	Road Ditch
	Field Ditch	Tile Drain
	Other	Ub Strm Wtr Pipe
4.9	Beaver Dams:	
	Affected length (ft.):	
5.2	Migration Features	
	Flood Chutes:	
	Neck Cutoffs:	
	Channel Avulsions:	
	Braiding:	
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	
	Head Cuts:	
5.4	Animal Crossings:	
5.5	Channel Alterations	
	Straightening:	
	Length (ft.):	<b>0.0</b>
	Dredging:	



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Reach: **M09 -A**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>151.7</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>922.6</b>	<b>507.0</b>
	Erosion Height (ft.):	<b>3.4</b>	<b>3.8</b>
	Revetment Type:	<b>None</b>	<b>Rip-Rap</b>
	Revetment length	<b>0.0</b>	<b>74.4</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>2339</b>	<b>2014</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:	<b>None</b>	
	Average Heigh (ft.):		
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow	Road Ditch
	Field Ditch	Tile Drain
	Other	Ub Strm Wtr Pipe
4.9	Beaver Dams:	<b>0</b>
	Affected length (ft.):	<b>0.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>0</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>Yes</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>245.0</b>
	Dredging:	<b>None</b>



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Reach: **M9T8.01 -B**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>0.0</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>143.4</b>	<b>0.0</b>
	Erosion Height (ft.):	<b>5.0</b>	<b>0.0</b>
	Revetment Type:	<b>None</b>	<b>None</b>
	Revetment length	<b>0.0</b>	<b>0.0</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>0</b>	<b>0</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:	<b>None</b>	
	Average Heigh (ft.):		
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>1</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow	Road Ditch
	Field Ditch	Tile Drain
	Other	Ub Strm Wtr Pipe
4.9	Beaver Dams:	<b>0</b>
	Affected length (ft.):	<b>0.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>3</b>
	Neck Cutoffs:	<b>1</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>1</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>None</b>
	Length (ft.):	<b>0.0</b>
	Dredging:	<b>None</b>



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Reach: **M9T8.01 -A**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>0.0</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>836.4</b>	<b>0.0</b>
	Erosion Height (ft.):	<b>3.4</b>	<b>0.0</b>
	Revetment Type:	<b>None</b>	<b>None</b>
	Revetment length	<b>0.0</b>	<b>0.0</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>661</b>	<b>0</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:	<b>None</b>	
	Average Heigh (ft.):		
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>3</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow	Road Ditch
	Field Ditch	Tile Drain
	Other	Ub Strm Wtr Pipe
4.9	Beaver Dams:	<b>1</b>
	Affected length (ft.):	<b>800.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>9</b>
	Neck Cutoffs:	<b>1</b>
	Channel Avulsions:	<b>2</b>
	Braiding:	<b>1</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>354.4</b>
	Dredging:	<b>None</b>



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SGAT Version: 4.56

Reach: **M9T8.1S1.02 -A**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>0.0</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>54.8</b>	<b>0.0</b>
	Erosion Height (ft.):	<b>4.0</b>	<b>0.0</b>
	Revetment Type:	<b>None</b>	<b>None</b>
	Revetment length	<b>0.0</b>	<b>0.0</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>0</b>	<b>0</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:	<b>None</b>	
	Average Heigh (ft.):		
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow	Road Ditch
	Field Ditch	Tile Drain
	Other	Ub Strm Wtr Pipe
4.9	Beaver Dams:	<b>4</b>
	Affected length (ft.):	<b>600.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>1</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>None</b>
	Length (ft.):	<b>0.0</b>
	Dredging:	<b>None</b>



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Reach: **M09 -B**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>66.7</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>1,072.9</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>637.2</b>	<b>852.3</b>
	Erosion Height (ft.):	<b>3.2</b>	<b>3.7</b>
	Revetment Type:	<b>None</b>	<b>Rip-Rap</b>
	Revetment length	<b>0.0</b>	<b>123.3</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>1880</b>	<b>2370</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:	<b>48.27</b>	
	Average Height (ft.):	<b>10.0</b>	
	Mass Failures:	<b>One</b>	
	Average Heigh (ft.):	<b>10.0</b>	
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow <b>0</b>	Road Ditch <b>0</b>
	Field Ditch <b>4</b>	Tile Drain <b>0</b>
	Other <b>0</b>	Ub Strm Wtr Pipe <b>0</b>
4.9	Beaver Dams:	<b>8</b>
	Affected length (ft.):	<b>1,225.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>3</b>
	Neck Cutoffs:	<b>3</b>
	Channel Avulsions:	<b>1</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>2,645.6</b>
	Dredging:	<b>None</b>





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Reach: **M09 -B**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>66.7</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>1,072.9</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>637.2</b>	<b>852.3</b>
	Erosion Height (ft.):	<b>3.2</b>	<b>3.7</b>
	Revetment Type:	<b>None</b>	<b>Rip-Rap</b>
	Revetment length	<b>0.0</b>	<b>123.3</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>1880</b>	<b>2370</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:	<b>48.27</b>	
	Average Height (ft.):	<b>10.0</b>	
	Mass Failures:	<b>One</b>	
	Average Heigh (ft.):	<b>10.0</b>	
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
Overland Flow	<b>1</b> Road Ditch	<b>0</b>
Field Ditch	<b>0</b> Tile Drain	<b>0</b>
Other	<b>0</b> Ub Strm Wtr Pipe	<b>0</b>
4.9	Beaver Dams:	<b>8</b>
	Affected length (ft.):	<b>1,225.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>3</b>
	Neck Cutoffs:	<b>3</b>
	Channel Avulsions:	<b>1</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>2,645.6</b>
	Dredging:	<b>None</b>



Phase 2 - FIT - Legacy Data Report

Black Creek Head

SGAT Version: 4.56

Reach: **M06 -0**

<u>Step</u>	<u>Description</u>	<u>Value</u>
1.2	Alluvial Fan:	<b>None</b>
1.3	<u>Encroachments - Side</u>	<u>One</u> <u>Both</u>
	Berm Length (ft.):	<b>0.0</b> <b>0.0</b>
	Path Length (ft.):	<b>0.0</b> <b>0.0</b>
	Road Length (ft.):	<b>255.8</b> <b>164.6</b>
	Railroad Lenth (ft.):	<b>388.1</b> <b>0.0</b>
	Development Length:	<b>0.0</b> <b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	<b>1,747.6</b> <b>655.8</b>
	Erosion Height (ft.):	<b>6.3</b> <b>6.0</b>
	Revetment Type:	<b>Rip-Rap</b> <b>Rip-Rap</b>
	Revetment length	<b>651.4</b> <b>208.6</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>4394</b> <b>3261</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u> <u>Right</u>
	Mass Failures:	<b>84.35</b>
	Average Height (ft.):	<b>12.0</b>
	Mass Failures:	<b>One</b>
	Average Heigh (ft.):	<b>12.0</b>
	Gullies:	<b>None</b>
	Number of Gullies	
	Total Length of Gullies (ft.):	
	Average Height of Gullies	

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow	<b>0</b> Road Ditch <b>0</b>
	Field Ditch	<b>0</b> Tile Drain <b>3</b>
	Other	<b>0</b> Ub Strm Wtr Pipe <b>0</b>
4.9	Beaver Dams:	<b>0</b>
	Affected length (ft.):	<b>0.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>0</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>2</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>Yes</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>2,619.7</b>
	Dredging:	<b>None</b>



Phase 2 - FIT - Legacy Data Report

Black Creek Head

SGAT Version: 4.56

Reach: **M06 -0**

<u>Step</u>	<u>Description</u>	<u>Value</u>
1.2	Alluvial Fan:	<b>None</b>
1.3	<u>Encroachments - Side</u>	<u>One</u> <u>Both</u>
	Berm Length (ft.):	<b>0.0</b> <b>0.0</b>
	Path Length (ft.):	<b>0.0</b> <b>0.0</b>
	Road Length (ft.):	<b>255.8</b> <b>164.6</b>
	Railroad Lenth (ft.):	<b>388.1</b> <b>0.0</b>
	Development Length:	<b>0.0</b> <b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	<b>1,747.6</b> <b>655.8</b>
	Erosion Height (ft.):	<b>6.3</b> <b>6.0</b>
	Revetment Type:	<b>Rip-Rap</b> <b>Rip-Rap</b>
	Revetment length	<b>651.4</b> <b>208.6</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>4394</b> <b>3261</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u> <u>Right</u>
	Mass Failures:	<b>84.35</b>
	Average Height (ft.):	<b>12.0</b>
	Mass Failures:	<b>One</b>
	Average Heigh (ft.):	<b>12.0</b>
	Gullies:	<b>None</b>
	Number of Gullies	
	Total Length of Gullies (ft.):	
	Average Height of Gullies	

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow <b>0</b>	Road Ditch <b>0</b>
	Field Ditch <b>2</b>	Tile Drain <b>0</b>
	Other <b>0</b>	Ub Strm Wtr Pipe <b>0</b>
4.9	Beaver Dams:	<b>0</b>
	Affected length (ft.):	<b>0.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>0</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>2</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>Yes</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>2,619.7</b>
	Dredging:	<b>None</b>



Phase 2 - FIT - Legacy Data Report

Black Creek Head

SGAT Version: 4.56

Reach: **M06 -0**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>255.8</b>	<b>164.6</b>
	Railroad Lenth (ft.):	<b>388.1</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>1,747.6</b>	<b>655.8</b>
	Erosion Height (ft.):	<b>6.3</b>	<b>6.0</b>
	Revetment Type:	<b>Rip-Rap</b>	<b>Rip-Rap</b>
	Revetment length	<b>651.4</b>	<b>208.6</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>4394</b>	<b>3261</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:	<b>84.35</b>	
	Average Height (ft.):	<b>12.0</b>	
	Mass Failures:	<b>One</b>	
	Average Heigh (ft.):	<b>12.0</b>	
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow <b>0</b>	Road Ditch <b>0</b>
	Field Ditch <b>0</b>	Tile Drain <b>0</b>
	Other <b>0</b>	Ub Strm Wtr Pipe <b>2</b>
4.9	Beaver Dams:	<b>0</b>
	Affected length (ft.):	<b>0.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>0</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>2</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>Yes</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>2,619.7</b>
	Dredging:	<b>None</b>



Phase 2 - FIT - Legacy Data Report

Black Creek Head

SGAT Version: 4.56

Reach: **M9T8.1S1.02 -B**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>0.0</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>173.9</b>	<b>214.9</b>
	Erosion Height (ft.):	<b>3.0</b>	<b>3.6</b>
	Revetment Type:	<b>None</b>	<b>None</b>
	Revetment length	<b>0.0</b>	<b>0.0</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>324</b>	<b>328</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:	<b>None</b>	
	Average Heigh (ft.):		
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>6</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow <b>0</b>	Road Ditch <b>0</b>
	Field Ditch <b>0</b>	Tile Drain <b>3</b>
	Other <b>0</b>	Ub Strm Wtr Pipe <b>0</b>
4.9	Beaver Dams:	<b>1</b>
	Affected length (ft.):	<b>100.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>8</b>
	Neck Cutoffs:	<b>2</b>
	Channel Avulsions:	<b>1</b>
	Braiding:	<b>1</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>1</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>Yes</b>
5.5	Channel Alterations	
	Straightening:	<b>None</b>
	Length (ft.):	<b>0.0</b>
	Dredging:	<b>None</b>



Phase 2 - FIT - Legacy Data Report

Black Creek Head

SGAT Version: 4.56

Reach: **M05 -A**

<u>Step</u>	<u>Description</u>	<u>Value</u>
1.2	Alluvial Fan:	<b>None</b>
1.3	<u>Encroachments - Side</u>	<u>One</u> <u>Both</u>
	Berm Length (ft.):	<b>0.0</b> <b>0.0</b>
	Path Length (ft.):	<b>0.0</b> <b>0.0</b>
	Road Length (ft.):	<b>408.7</b> <b>0.0</b>
	Railroad Lenth (ft.):	<b>1,971.9</b> <b>0.0</b>
	Development Length:	<b>113.6</b> <b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	<b>473.8</b> <b>797.1</b>
	Erosion Height (ft.):	<b>5.4</b> <b>3.8</b>
	Revetment Type:	<b>Rip-Rap</b> <b>Rip-Rap</b>
	Revetment length	<b>674.1</b> <b>858.3</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>3579</b> <b>7173</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u> <u>Right</u>
	Mass Failures:	<b>94.36</b>
	Average Height (ft.):	<b>12.0</b>
	Mass Failures:	<b>One</b>
	Average Heigh (ft.):	<b>12.0</b>
	Gullies:	<b>None</b>
	Number of Gullies	
	Total Length of Gullies (ft.):	
	Average Height of Gullies	

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>1</b>
4.5	Flow Regulation Type:	<b>Small Withdrawal</b>
	Use:	<b>Other</b>
4.7	Stormwater Inputs	
	Overland Flow	<b>0</b> Road Ditch <b>0</b>
	Field Ditch	<b>6</b> Tile Drain <b>0</b>
	Other	<b>0</b> Ub Strm Wtr Pipe <b>0</b>
4.9	Beaver Dams:	<b>2</b>
	Affected length (ft.):	<b>500.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>0</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>Yes</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>4,445.3</b>
	Dredging:	<b>None</b>



Phase 2 - FIT - Legacy Data Report

Black Creek Head

SGAT Version: 4.56

Reach: **M05 -A**

<u>Step</u>	<u>Description</u>	<u>Value</u>
1.2	Alluvial Fan:	<b>None</b>
1.3	<u>Encroachments - Side</u>	<u>One</u> <u>Both</u>
	Berm Length (ft.):	<b>0.0</b> <b>0.0</b>
	Path Length (ft.):	<b>0.0</b> <b>0.0</b>
	Road Length (ft.):	<b>408.7</b> <b>0.0</b>
	Railroad Lenth (ft.):	<b>1,971.9</b> <b>0.0</b>
	Development Length:	<b>113.6</b> <b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	<b>473.8</b> <b>797.1</b>
	Erosion Height (ft.):	<b>5.4</b> <b>3.8</b>
	Revetment Type:	<b>Rip-Rap</b> <b>Rip-Rap</b>
	Revetment length	<b>674.1</b> <b>858.3</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>3579</b> <b>7173</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u> <u>Right</u>
	Mass Failures:	<b>94.36</b>
	Average Height (ft.):	<b>12.0</b>
	Mass Failures:	<b>One</b>
	Average Heigh (ft.):	<b>12.0</b>
	Gullies:	<b>None</b>
	Number of Gullies	
	Total Length of Gullies (ft.):	
	Average Height of Gullies	

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>1</b>
4.5	Flow Regulation Type:	<b>Small Withdrawal</b>
	Use:	<b>Other</b>
4.7	Stormwater Inputs	
	Overland Flow    0      Road Ditch      0	
	Field Ditch      0      Tile Drain      3	
	Other            0      Ub Strm Wtr Pipe      0	
4.9	Beaver Dams:	<b>2</b>
	Affected length (ft.):	<b>500.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>0</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>Yes</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>4,445.3</b>
	Dredging:	<b>None</b>



Phase 2 - FIT - Legacy Data Report

Black Creek Head

SGAT Version: 4.56

Reach: **M05 -A**

<u>Step</u>	<u>Description</u>	<u>Value</u>
1.2	Alluvial Fan:	<b>None</b>
1.3	<u>Encroachments - Side</u>	<u>One</u> <u>Both</u>
	Berm Length (ft.):	<b>0.0</b> <b>0.0</b>
	Path Length (ft.):	<b>0.0</b> <b>0.0</b>
	Road Length (ft.):	<b>408.7</b> <b>0.0</b>
	Railroad Lenth (ft.):	<b>1,971.9</b> <b>0.0</b>
	Development Length:	<b>113.6</b> <b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	<b>473.8</b> <b>797.1</b>
	Erosion Height (ft.):	<b>5.4</b> <b>3.8</b>
	Revetment Type:	<b>Rip-Rap</b> <b>Rip-Rap</b>
	Revetment length	<b>674.1</b> <b>858.3</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>3579</b> <b>7173</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u> <u>Right</u>
	Mass Failures:	<b>94.36</b>
	Average Height (ft.):	<b>12.0</b>
	Mass Failures:	<b>One</b>
	Average Heigh (ft.):	<b>12.0</b>
	Gullies:	<b>None</b>
	Number of Gullies	
	Total Length of Gullies (ft.):	
	Average Height of Gullies	

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>1</b>
4.5	Flow Regulation Type:	<b>Small Withdrawal</b>
	Use:	<b>Other</b>
4.7	Stormwater Inputs	
	Overland Flow	<b>0</b> Road Ditch <b>0</b>
	Field Ditch	<b>0</b> Tile Drain <b>0</b>
	Other	<b>1</b> Ub Strm Wtr Pipe <b>0</b>
4.9	Beaver Dams:	<b>2</b>
	Affected length (ft.):	<b>500.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>0</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>Yes</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>4,445.3</b>
	Dredging:	<b>None</b>





# Stream Geomorphic Assessment

Agency of Natural Resources



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June, 25 2024

## Phase 2 - FIT - Legacy Data Report

## Black Creek Head

SGAT Version: **4.56**

Reach: **M08 -0**

<u>Step</u>	<u>Description</u>	<u>Value</u>	<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	4.4	Number of Debris Jams:	<b>0</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	4.5	Flow Regulation Type:	<b>None</b>	
	Berm Length (ft.):	<b>296.2</b>		Use:		
	Path Length (ft.):	<b>0.0</b>	4.7	Stormwater Inputs		
	Road Length (ft.):	<b>0.0</b>	Overland Flow	<b>0</b>	Road Ditch	<b>0</b>
	Railroad Lenth (ft.):	<b>996.9</b>	Field Ditch	<b>0</b>	Tile Drain	<b>1</b>
	Development Length:	<b>0.0</b>	Other	<b>0</b>	Ub Strm Wtr Pipe	<b>0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	4.9	Beaver Dams:	<b>1</b>	
	Erosion Length (ft.):	<b>189.0</b>		Affected length (ft.):	<b>500.0</b>	
	Erosion Height (ft.):	<b>3.9</b>	5.2	Migration Features		
	Revetment Type:	<b>Rip-Rap</b>		Flood Chutes:	<b>0</b>	
	Revetment length	<b>57.0</b>		Neck Cutoffs:	<b>0</b>	
3.2	<u>Buffer Less Than 25 ft.</u>	<b>2432</b>		Channel Avulsions:	<b>0</b>	
3.3	<u>Riparian Corridor</u>	<u>Left</u>		Braiding:	<b>0</b>	
	Mass Failures:		5.3	Steep Riffles and Head Cuts		
	Average Height (ft.):			Steep Riffles:	<b>0</b>	
	Mass Failures:	<b>None</b>		Head Cuts:	<b>0</b>	
	Average Heigh (ft.):		5.4	Animal Crossings:	<b>Yes</b>	
	Gullies:	<b>None</b>	5.5	Channel Alterations		
	Number of Gullies			Straightening:	<b>Straightening</b>	
	Total Length of Gullies (ft.):			Length (ft.):	<b>1,609.7</b>	
	Average Height of Gullies			Dredging:	<b>None</b>	



Phase 2 - FIT - Legacy Data Report

Black Creek Head

SGAT Version: 4.56

Reach: **M08 -0**

<u>Step</u>	<u>Description</u>	<u>Value</u>
1.2	Alluvial Fan:	<b>None</b>
1.3	<u>Encroachments - Side</u>	<u>One</u> <u>Both</u>
	Berm Length (ft.):	<b>296.2</b> <b>0.0</b>
	Path Length (ft.):	<b>0.0</b> <b>0.0</b>
	Road Length (ft.):	<b>0.0</b> <b>0.0</b>
	Railroad Lenth (ft.):	<b>996.9</b> <b>0.0</b>
	Development Length:	<b>0.0</b> <b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	<b>189.0</b> <b>90.0</b>
	Erosion Height (ft.):	<b>3.9</b> <b>2.0</b>
	Revetment Type:	<b>Rip-Rap</b> <b>None</b>
	Revetment length	<b>57.0</b> <b>0.0</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>2432</b> <b>819</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u> <u>Right</u>
	Mass Failures:	
	Average Height (ft.):	
	Mass Failures:	<b>None</b>
	Average Heigh (ft.):	
	Gullies:	<b>None</b>
	Number of Gullies	
	Total Length of Gullies (ft.):	
	Average Height of Gullies	

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow <b>1</b>	Road Ditch <b>0</b>
	Field Ditch <b>0</b>	Tile Drain <b>0</b>
	Other <b>0</b>	Ub Strm Wtr Pipe <b>0</b>
4.9	Beaver Dams:	<b>1</b>
	Affected length (ft.):	<b>500.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>0</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>Yes</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>1,609.7</b>
	Dredging:	<b>None</b>



# Stream Geomorphic Assessment

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## Phase 2 - FIT - Legacy Data Report

## Black Creek Head

SGAT Version: **4.56**

Reach: **M07 -0**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>231.8</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>1,066.5</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>255.3</b>	<b>0.0</b>
	Development Length:	<b>360.1</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>1,432.1</b>	<b>752.1</b>
	Erosion Height (ft.):	<b>3.9</b>	<b>3.5</b>
	Revetment Type:	<b>Rip-Rap</b>	<b>Rip-Rap</b>
	Revetment length	<b>62.6</b>	<b>1,964.8</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>1024</b>	<b>4796</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:	<b>None</b>	
	Average Heigh (ft.):		
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>Small Bypass</b>
	Use:	<b>Flood Control</b>
4.7	Stormwater Inputs	
	Overland Flow <b>0</b>	Road Ditch <b>2</b>
	Field Ditch <b>0</b>	Tile Drain <b>0</b>
	Other <b>0</b>	Ub Strm Wtr Pipe <b>0</b>
4.9	Beaver Dams:	<b>1</b>
	Affected length (ft.):	<b>50.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>2</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>2,811.9</b>
	Dredging:	<b>None</b>



Phase 2 - FIT - Legacy Data Report

Black Creek Head

SGAT Version: 4.56

Reach: **M07 -0**

<u>Step</u>	<u>Description</u>	<u>Value</u>
1.2	Alluvial Fan:	<b>None</b>
1.3	<u>Encroachments - Side</u>	<u>One</u> <u>Both</u>
	Berm Length (ft.):	<b>231.8</b> <b>0.0</b>
	Path Length (ft.):	<b>0.0</b> <b>0.0</b>
	Road Length (ft.):	<b>1,066.5</b> <b>0.0</b>
	Railroad Lenth (ft.):	<b>255.3</b> <b>0.0</b>
	Development Length:	<b>360.1</b> <b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	<b>1,432.1</b> <b>752.1</b>
	Erosion Height (ft.):	<b>3.9</b> <b>3.5</b>
	Revetment Type:	<b>Rip-Rap</b> <b>Rip-Rap</b>
	Revetment length	<b>62.6</b> <b>1,964.8</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>1024</b> <b>4796</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u> <u>Right</u>
	Mass Failures:	
	Average Height (ft.):	
	Mass Failures:	<b>None</b>
	Average Heigh (ft.):	
	Gullies:	<b>None</b>
	Number of Gullies	
	Total Length of Gullies (ft.):	
	Average Height of Gullies	

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>Small Bypass</b>
	Use:	<b>Flood Control</b>
4.7	Stormwater Inputs	
	Overland Flow	<b>0</b> Road Ditch <b>0</b>
	Field Ditch	<b>0</b> Tile Drain <b>0</b>
	Other	<b>0</b> Ub Strm Wtr Pipe <b>1</b>
4.9	Beaver Dams:	<b>1</b>
	Affected length (ft.):	<b>50.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>2</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>2,811.9</b>
	Dredging:	<b>None</b>



Phase 2 - FIT - Legacy Data Report

Black Creek Head

SGAT Version: 4.56

Reach: **M07 -0**

<u>Step</u>	<u>Description</u>	<u>Value</u>
1.2	Alluvial Fan:	<b>None</b>
1.3	<u>Encroachments - Side</u>	<u>One</u> <u>Both</u>
	Berm Length (ft.):	<b>231.8</b> <b>0.0</b>
	Path Length (ft.):	<b>0.0</b> <b>0.0</b>
	Road Length (ft.):	<b>1,066.5</b> <b>0.0</b>
	Railroad Lenth (ft.):	<b>255.3</b> <b>0.0</b>
	Development Length:	<b>360.1</b> <b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	<b>1,432.1</b> <b>752.1</b>
	Erosion Height (ft.):	<b>3.9</b> <b>3.5</b>
	Revetment Type:	<b>Rip-Rap</b> <b>Rip-Rap</b>
	Revetment length	<b>62.6</b> <b>1,964.8</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>1024</b> <b>4796</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u> <u>Right</u>
	Mass Failures:	
	Average Height (ft.):	
	Mass Failures:	<b>None</b>
	Average Heigh (ft.):	
	Gullies:	<b>None</b>
	Number of Gullies	
	Total Length of Gullies (ft.):	
	Average Height of Gullies	

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>Small Bypass</b>
	Use:	<b>Flood Control</b>
4.7	Stormwater Inputs	
	Overland Flow <b>1</b>	Road Ditch <b>0</b>
	Field Ditch <b>0</b>	Tile Drain <b>0</b>
	Other <b>0</b>	Ub Strm Wtr Pipe <b>0</b>
4.9	Beaver Dams:	<b>1</b>
	Affected length (ft.):	<b>50.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>2</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>2,811.9</b>
	Dredging:	<b>None</b>



# Stream Geomorphic Assessment

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## Phase 2 - FIT - Legacy Data Report

## Black Creek Head

SGAT Version: **4.56**

Reach: **M07 -0**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>231.8</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>1,066.5</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>255.3</b>	<b>0.0</b>
	Development Length:	<b>360.1</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>1,432.1</b>	<b>752.1</b>
	Erosion Height (ft.):	<b>3.9</b>	<b>3.5</b>
	Revetment Type:	<b>Rip-Rap</b>	<b>Rip-Rap</b>
	Revetment length	<b>62.6</b>	<b>1,964.8</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>1024</b>	<b>4796</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:	<b>None</b>	
	Average Heigh (ft.):		
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>Small Bypass</b>
	Use:	<b>Flood Control</b>
4.7	Stormwater Inputs	
	Overland Flow <b>0</b>	Road Ditch <b>0</b>
	Field Ditch <b>0</b>	Tile Drain <b>2</b>
	Other <b>0</b>	Ub Strm Wtr Pipe <b>0</b>
4.9	Beaver Dams:	<b>1</b>
	Affected length (ft.):	<b>50.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>2</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>2,811.9</b>
	Dredging:	<b>None</b>



# Stream Geomorphic Assessment

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## Phase 2 - FIT - Legacy Data Report

## Black Creek Head

SGAT Version: **4.56**

Reach: **M05 -B**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>307.2</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>686.2</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>801.5</b>	<b>1,194.1</b>
	Erosion Height (ft.):	<b>6.0</b>	<b>5.4</b>
	Revetment Type:	<b>Rip-Rap</b>	<b>Rip-Rap</b>
	Revetment length	<b>887.8</b>	<b>700.8</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>3237</b>	<b>3777</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:	<b>None</b>	
	Average Heigh (ft.):		
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow	<b>0</b>
	Road Ditch	<b>0</b>
	Field Ditch	<b>0</b>
	Tile Drain	<b>5</b>
	Other	<b>0</b>
	Ub Strm Wtr Pipe	<b>0</b>
4.9	Beaver Dams:	<b>0</b>
	Affected length (ft.):	<b>0.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>2</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>2,857.6</b>
	Dredging:	<b>None</b>



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Agency of Natural Resources



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## Phase 2 - FIT - Legacy Data Report

## Black Creek Head

SGAT Version: **4.56**

Reach: **M05 -B**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>307.2</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>686.2</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>801.5</b>	<b>1,194.1</b>
	Erosion Height (ft.):	<b>6.0</b>	<b>5.4</b>
	Revetment Type:	<b>Rip-Rap</b>	<b>Rip-Rap</b>
	Revetment length	<b>887.8</b>	<b>700.8</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>3237</b>	<b>3777</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:	<b>None</b>	
	Average Heigh (ft.):		
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow <b>0</b>	Road Ditch <b>0</b>
	Field Ditch <b>1</b>	Tile Drain <b>0</b>
	Other <b>0</b>	Ub Strm Wtr Pipe <b>0</b>
4.9	Beaver Dams:	<b>0</b>
	Affected length (ft.):	<b>0.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>2</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>2,857.6</b>
	Dredging:	<b>None</b>





Phase 2 - FIT - Legacy Data Report

Black Creek Head

SGAT Version: 4.56

Reach: **M9T8.1S1.01 -0**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Path Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Road Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>0.0</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Erosion Height (ft.):	<b>0.0</b>	<b>0.0</b>
	Revetment Type:	<b>None</b>	<b>None</b>
	Revetment length	<b>0.0</b>	<b>0.0</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>0</b>	<b>0</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:	<b>None</b>	
	Average Heigh (ft.):		
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow	Road Ditch
	Field Ditch	Tile Drain
	Other	Ub Strm Wtr Pipe
4.9	Beaver Dams:	<b>1</b>
	Affected length (ft.):	<b>0.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>0</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>No</b>
5.5	Channel Alterations	
	Straightening:	<b>None</b>
	Length (ft.):	<b>0.0</b>
	Dredging:	<b>None</b>



Phase 2 - FIT - Legacy Data Report

Black Creek Head

SGAT Version: 4.56

Reach: **M9T8.1S1.02 -C**

<u>Step</u>	<u>Description</u>	<u>Value</u>	
1.2	Alluvial Fan:	<b>None</b>	
1.3	<u>Encroachments - Side</u>	<u>One</u>	<u>Both</u>
	Berm Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Path Length (ft.):	<b>98.9</b>	<b>0.0</b>
	Road Length (ft.):	<b>0.0</b>	<b>0.0</b>
	Railroad Lenth (ft.):	<b>0.0</b>	<b>0.0</b>
	Development Length:	<b>0.0</b>	<b>0.0</b>
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	<b>165.8</b>	<b>290.3</b>
	Erosion Height (ft.):	<b>3.1</b>	<b>3.2</b>
	Revetment Type:	<b>Rip-Rap</b>	<b>None</b>
	Revetment length	<b>39.2</b>	<b>0.0</b>
3.2	<u>Buffer Less Than 25 ft.</u>	<b>774</b>	<b>754</b>
3.3	<u>Riparian Corridor</u>	<u>Left</u>	<u>Right</u>
	Mass Failures:		
	Average Height (ft.):		
	Mass Failures:	<b>None</b>	
	Average Heigh (ft.):		
	Gullies:	<b>None</b>	
	Number of Gullies		
	Total Length of Gullies (ft.):		
	Average Height of Gullies		

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	<b>0</b>
4.5	Flow Regulation Type:	<b>None</b>
	Use:	
4.7	Stormwater Inputs	
	Overland Flow	Road Ditch
	Field Ditch	Tile Drain
	Other	Ub Strm Wtr Pipe
4.9	Beaver Dams:	<b>0</b>
	Affected length (ft.):	<b>0.0</b>
5.2	Migration Features	
	Flood Chutes:	<b>1</b>
	Neck Cutoffs:	<b>0</b>
	Channel Avulsions:	<b>0</b>
	Braiding:	<b>0</b>
5.3	Steep Riffles and Head Cuts	
	Steep Riffles:	<b>0</b>
	Head Cuts:	<b>0</b>
5.4	Animal Crossings:	<b>Yes</b>
5.5	Channel Alterations	
	Straightening:	<b>Straightening</b>
	Length (ft.):	<b>356.6</b>
	Dredging:	<b>None</b>