



Stream Geomorphic Assessment

Agency of Natural Resources



Vermont.gov
July, 17 2024

Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **M04 -B**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 0.0 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 369.6 | 383.1 |
| | Erosion Height (ft.): | 3.4 | 3.7 |
| | Revetment Type: | Rip-Rap | Rip-Rap |
| | Revetment length | 202.9 | 221.8 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 747 | 741 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow 0 | Road Ditch 0 |
| | Field Ditch 1 | Tile Drain 0 |
| | Other 0 | Ub Strm Wtr Pipe 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 1 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | None |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T3.04 -0

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|-----------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 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.): | 500.0 | 100.0 |
| | Erosion Height (ft.): | 6.0 | 6.0 |
| | Revetment Type: | None | None |
| | Revetment length | 0.0 | 0.0 |
| 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.): | 20.0 | 20.0 |
| | Mass Failures: | Multiple | |
| | Average Heigh (ft.): | 20.0 | |
| | 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 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 1 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 2 |
| | Head Cuts: | 2 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T4.03 -0

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|--------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 0.0 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 189.4 | 73.6 |
| | Erosion Height (ft.): | 4.3 | 3.0 |
| | Revetment Type: | None | None |
| | Revetment length | 0.0 | 0.0 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 0 | 0 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 1 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | None |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: **M01 -0**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 270.3 | |
| | Path Length (ft.): | 326.3 | |
| | Road Length (ft.): | 0.0 | |
| | Railroad Lenth (ft.): | 0.0 | |
| | Development Length: | 0.0 | |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 1,991.0 | 2,468.6 |
| | Erosion Height (ft.): | 4.0 | 4.1 |
| | Revetment Type: | None | Rip-Rap |
| | Revetment length | 0.0 | 368.0 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 4576 | 6655 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | 150.84 | |
| | Average Height (ft.): | 0.0 | |
| | Mass Failures: | One | |
| | Average Heigh (ft.): | 0.0 | |
| | Gullies: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | Small Withdrawal |
| | Use: | Other |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | 0 |
| | Road Ditch | 0 |
| | Field Ditch | 9 |
| | Tile Drain | 0 |
| | Other | 0 |
| | Ub Strm Wtr Pipe | 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 0 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 5,279.4 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: **M01 -0**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 270.3 | |
| | Path Length (ft.): | 326.3 | |
| | Road Length (ft.): | 0.0 | |
| | Railroad Lenth (ft.): | 0.0 | |
| | Development Length: | 0.0 | |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 1,991.0 | 2,468.6 |
| | Erosion Height (ft.): | 4.0 | 4.1 |
| | Revetment Type: | None | Rip-Rap |
| | Revetment length | 0.0 | 368.0 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 4576 | 6655 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | 150.84 | |
| | Average Height (ft.): | 0.0 | |
| | Mass Failures: | One | |
| | Average Heigh (ft.): | 0.0 | |
| | Gullies: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | Small Withdrawal |
| | Use: | Other |
| 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: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 0 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 5,279.4 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T3.03 -A

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|--------------|
| 1.2 | Alluvial Fan: | Unknown | |
| 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 2 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | None |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



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Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **T4.05 -A**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 618.3 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 196.0 | 71.6 |
| | Erosion Height (ft.): | 8.0 | 2.0 |
| | Revetment Type: | Rip-Rap | Rip-Rap |
| | Revetment length | 89.9 | 81.8 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 949 | 942 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 1 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 650.4 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T3.3S1.4S1.01 -0

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|--------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 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.): | 50.0 | 50.0 |
| | Erosion Height (ft.): | 2.0 | 2.0 |
| | Revetment Type: | None | None |
| | 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: | None | |
| | 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: | 1 |
| 4.5 | Flow Regulation Type: | None |
| | 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: | 1 |
| | Neck Cutoffs: | 1 |
| | Channel Avulsions: | 1 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 2 |
| | Head Cuts: | 2 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | None |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T4.05 -B

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|--------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 0.0 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 183.1 | 91.2 |
| | Erosion Height (ft.): | 6.0 | 4.0 |
| | Revetment Type: | None | None |
| | Revetment length | 0.0 | 0.0 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 291 | 0 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 6 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 1 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 1 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | None |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



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Black Creek Mouth

SGAT Version: **4.56**

Reach: **T2.01 -B**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|-----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 15.7 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 0.0 | 88.1 |
| | Erosion Height (ft.): | 0.0 | 5.0 |
| | Revetment Type: | Rip-Rap | Multiple |
| | Revetment length | 46.0 | 174.9 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 35 | 270 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 3 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 1 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 217.0 |
| | Dredging: | None |



Stream Geomorphic Assessment

Agency of Natural Resources



Vermont.gov
July, 17 2024

Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **T2.02 -C**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | | <u>Step</u> | <u>Description</u> | <u>Value</u> |
|-------------|--------------------------------|----------------|----------------|-------------|-----------------------------|----------------------|
| 1.2 | Alluvial Fan: | None | | 4.4 | Number of Debris Jams: | 0 |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> | 4.5 | Flow Regulation Type: | None |
| | Berm Length (ft.): | 0.0 | 0.0 | | Use: | |
| | Path Length (ft.): | 0.0 | 0.0 | 4.7 | Stormwater Inputs | |
| | Road Length (ft.): | 0.0 | 0.0 | | Overland Flow | Road Ditch |
| | Railroad Lenth (ft.): | 0.0 | 0.0 | | Field Ditch | Tile Drain |
| | Development Length: | 0.0 | 0.0 | | Other | Ub Strm Wtr Pipe |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> | 4.9 | Beaver Dams: | 1 |
| | Erosion Length (ft.): | 0.0 | 0.0 | | Affected length (ft.): | 800.0 |
| | Erosion Height (ft.): | 0.0 | 0.0 | 5.2 | Migration Features | |
| | Revetment Type: | Rip-Rap | Rip-Rap | | Flood Chutes: | 3 |
| | Revetment length | 378.3 | 193.1 | | Neck Cutoffs: | 0 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 0 | 1216 | | Channel Avulsions: | 1 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> | | Braiding: | 0 |
| | Mass Failures: | | | 5.3 | Steep Riffles and Head Cuts | |
| | Average Height (ft.): | | | | Steep Riffles: | 0 |
| | Mass Failures: | None | | | Head Cuts: | 0 |
| | Average Heigh (ft.): | | | 5.4 | Animal Crossings: | No |
| | Gullies: | None | | 5.5 | Channel Alterations | |
| | Number of Gullies | | | | Straightening: | Straightening |
| | Total Length of Gullies (ft.): | | | | Length (ft.): | 537.4 |
| | Average Height of Gullies | | | | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T3.2S1.01 -A

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|--------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 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.): | 20.0 | 50.0 |
| | Erosion Height (ft.): | 1.5 | 5.0 |
| | Revetment Type: | None | None |
| | Revetment length | 0.0 | 0.0 |
| 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: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | 0 |
| | Road Ditch | 0 |
| | Field Ditch | 0 |
| | Tile Drain | 0 |
| | Other | 1 |
| | Ub Strm Wtr Pipe | 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | |
| | Length (ft.): | 0.0 |
| | Dredging: | |



Stream Geomorphic Assessment

Agency of Natural Resources



Vermont.gov
July, 17 2024

Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **T2.01 -A**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 110.4 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 1,376.4 | 1,055.7 |
| | Erosion Height (ft.): | 5.9 | 6.2 |
| | Revetment Type: | None | Rip-Rap |
| | Revetment length | 0.0 | 48.7 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 3166 | 2255 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 1 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow 0 | Road Ditch 0 |
| | Field Ditch 1 | Tile Drain 0 |
| | Other 0 | Ub Strm Wtr Pipe 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 3 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 1 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 103.9 |
| | Dredging: | Dredging |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T2.01 -A

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 110.4 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 1,376.4 | 1,055.7 |
| | Erosion Height (ft.): | 5.9 | 6.2 |
| | Revetment Type: | None | Rip-Rap |
| | Revetment length | 0.0 | 48.7 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 3166 | 2255 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 1 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 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: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 3 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 1 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 103.9 |
| | Dredging: | Dredging |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T3.05 -B

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|--------------|--------------|
| 1.2 | Alluvial Fan: | Yes | |
| 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.): | 460.0 | 860.0 |
| | Erosion Height (ft.): | 2.0 | 2.0 |
| | Revetment Type: | None | None |
| | Revetment length | 0.0 | 0.0 |
| 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: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | 0 |
| | Road Ditch | 0 |
| | Field Ditch | 0 |
| | Tile Drain | 0 |
| | Other | 1 |
| | Ub Strm Wtr Pipe | 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 2 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 2 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T3.2S1.01 -B

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|-----------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 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.): | 180.0 | 120.0 |
| | Erosion Height (ft.): | 3.0 | 6.0 |
| | Revetment Type: | None | None |
| | Revetment length | 0.0 | 0.0 |
| 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.): | 15.0 | 15.0 |
| | Mass Failures: | Multiple | |
| | Average Heigh (ft.): | 15.0 | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 2 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | None |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T3.5S1.01 -0

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | Yes | |
| 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.): | 0.0 | 30.0 |
| | Erosion Height (ft.): | 0.0 | 4.0 |
| | Revetment Type: | Rip-Rap | Rip-Rap |
| | Revetment length | 40.0 | 10.0 |
| 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.): | 0.0 | 0.0 |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | 0.0 | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | 0 |
| | Road Ditch | 0 |
| | Field Ditch | 0 |
| | Tile Drain | 0 |
| | Other | 2 |
| | Ub Strm Wtr Pipe | 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 2 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 0.0 |
| | Dredging: | Dredging |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T3.05 -A

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|--------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 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.): | 0.0 | 190.0 |
| | Erosion Height (ft.): | 0.0 | 6.0 |
| | Revetment Type: | None | None |
| | Revetment length | 0.0 | 0.0 |
| 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.): | 12.0 | 12.0 |
| | Mass Failures: | One | |
| | Average Heigh (ft.): | 12.0 | |
| | 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: | 3 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 1 |
| | Affected length (ft.): | 500.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 1 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 1 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | None |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: **M02 -0**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|--------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 0.0 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 450.2 | 569.8 |
| | Erosion Height (ft.): | 2.0 | 3.0 |
| | Revetment Type: | None | None |
| | Revetment length | 0.0 | 0.0 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 1237 | 308 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow 0 | Road Ditch 0 |
| | Field Ditch 3 | Tile Drain 0 |
| | Other 0 | Ub Strm Wtr Pipe 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 0 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 558.9 |
| | Dredging: | None |



Stream Geomorphic Assessment

Agency of Natural Resources



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July, 17 2024

Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **T4.01 -0**

| <u>Step</u> | <u>Description</u> | <u>Value</u> |
|-------------|--------------------------------|----------------------------|
| 1.2 | Alluvial Fan: | None |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> <u>Both</u> |
| | Berm Length (ft.): | 0.0 |
| | Path Length (ft.): | 0.0 |
| | Road Length (ft.): | 0.0 |
| | Railroad Lenth (ft.): | 160.3 |
| | Development Length: | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> <u>Right</u> |
| | Erosion Length (ft.): | 903.4 807.3 |
| | Erosion Height (ft.): | 6.3 5.3 |
| | Revetment Type: | Rip-Rap None |
| | Revetment length | 173.8 0.0 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 2960 1426 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> <u>Right</u> |
| | Mass Failures: | |
| | Average Height (ft.): | |
| | Mass Failures: | None |
| | Average Heigh (ft.): | |
| | Gullies: | None |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow 0 | Road Ditch 0 |
| | Field Ditch 1 | Tile Drain 0 |
| | Other 0 | Ub Strm Wtr Pipe 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 5 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 2 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 1,182.1 |
| | Dredging: | None |



Stream Geomorphic Assessment

Agency of Natural Resources



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July, 17 2024

Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **T3.03 -B**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|-----------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 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.): | 250.0 | 400.0 |
| | Erosion Height (ft.): | 10.0 | 20.0 |
| | Revetment Type: | None | None |
| | Revetment length | 0.0 | 0.0 |
| 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.): | 20.0 | 20.0 |
| | Mass Failures: | Multiple | |
| | Average Heigh (ft.): | 20.0 | |
| | 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: | 2 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 2 |
| | Head Cuts: | 1 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | None |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: **M04 -A**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 0.0 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 725.1 | 560.7 |
| | Erosion Height (ft.): | 6.6 | 5.6 |
| | Revetment Type: | Rip-Rap | Rip-Rap |
| | Revetment length | 74.3 | 239.4 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 2071 | 1131 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | Small Withdrawal |
| | Use: | Other |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | 0 Road Ditch 0 |
| | Field Ditch | 2 Tile Drain 0 |
| | Other | 0 Ub Strm Wtr Pipe 0 |
| 4.9 | Beaver Dams: | 1 |
| | Affected length (ft.): | 300.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 1 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 783.2 |
| | Dredging: | None |



Stream Geomorphic Assessment

Agency of Natural Resources



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July, 17 2024

Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **M03 -A**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 430.2 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 784.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 1,685.3 | 831.4 |
| | Erosion Height (ft.): | 4.5 | 6.6 |
| | Revetment Type: | Rip-Rap | Rip-Rap |
| | Revetment length | 1,705.6 | 1,203.0 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 13614 | 7376 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 3 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow 0 | Road Ditch 0 |
| | Field Ditch 6 | Tile Drain 0 |
| | Other 0 | Ub Strm Wtr Pipe 0 |
| 4.9 | Beaver Dams: | 1 |
| | Affected length (ft.): | 300.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 1 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 4,839.9 |
| | Dredging: | None |



Stream Geomorphic Assessment

Agency of Natural Resources



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July, 17 2024

Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **M03 -A**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 430.2 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 784.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 1,685.3 | 831.4 |
| | Erosion Height (ft.): | 4.5 | 6.6 |
| | Revetment Type: | Rip-Rap | Rip-Rap |
| | Revetment length | 1,705.6 | 1,203.0 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 13614 | 7376 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 3 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 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: | 1 |
| | Affected length (ft.): | 300.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 1 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 4,839.9 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T3.3S1.02 -0

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|--------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 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.): | 30.0 | 30.0 |
| | Erosion Height (ft.): | 1.0 | 1.0 |
| | Revetment Type: | None | None |
| | 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: | None | |
| | 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: | 1 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow 0 | Road Ditch 0 |
| | Field Ditch 0 | Tile Drain 0 |
| | Other 1 | Ub Strm Wtr Pipe 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 1 |
| | Neck Cutoffs: | 1 |
| | Channel Avulsions: | 1 |
| | Braiding: | 1 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T3.3S1.01 -0

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 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.): | 2,690.0 | 2,760.0 |
| | Erosion Height (ft.): | 3.0 | 3.0 |
| | Revetment Type: | Rip-Rap | Rip-Rap |
| | Revetment length | 95.0 | 250.0 |
| 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: | None | |
| | 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: | 10 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | 0 |
| | Road Ditch | 0 |
| | Field Ditch | 0 |
| | Tile Drain | 0 |
| | Other | 2 |
| | Ub Strm Wtr Pipe | 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 2 |
| | Channel Avulsions: | 2 |
| | Braiding: | 1 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 2 |
| | Head Cuts: | 2 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T3.3S1.3S1.01 -0

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|--------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 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.): | 400.0 | 490.0 |
| | Erosion Height (ft.): | 3.0 | 3.0 |
| | Revetment Type: | None | None |
| | 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: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 1 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 2 |
| | Head Cuts: | 2 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Stream Geomorphic Assessment

Agency of Natural Resources



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July, 17 2024

Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **T4.04 -B**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|------------------------|-----------------------------|--------------|
| 1.2 | Alluvial Fan: | None | 4.4 | Number of Debris Jams: | 0 | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> | 4.5 | Flow Regulation Type: | None |
| | Berm Length (ft.): | 0.0 | 0.0 | | Use: | |
| | Path Length (ft.): | 0.0 | 0.0 | 4.7 | Stormwater Inputs | |
| | Road Length (ft.): | 0.0 | 0.0 | Overland Flow | Road Ditch | |
| | Railroad Lenth (ft.): | 0.0 | 0.0 | Field Ditch | Tile Drain | |
| | Development Length: | 0.0 | 0.0 | Other | Ub Strm Wtr Pipe | |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> | 4.9 | Beaver Dams: | 2 |
| | Erosion Length (ft.): | 584.9 | 381.5 | | Affected length (ft.): | 430.0 |
| | Erosion Height (ft.): | 5.4 | 6.0 | 5.2 | Migration Features | |
| | Revetment Type: | Rip-Rap | Rip-Rap | Flood Chutes: | 6 | |
| | Revetment length | 68.0 | 35.7 | Neck Cutoffs: | 0 | |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 862 | 700 | Channel Avulsions: | 0 | |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> | Braiding: | 1 | |
| | Mass Failures: | | 61.06 | 5.3 | Steep Riffles and Head Cuts | |
| | Average Height (ft.): | | 18.0 | Steep Riffles: | 1 | |
| | Mass Failures: | One | | Head Cuts: | 0 | |
| | Average Heigh (ft.): | | 18.0 | 5.4 | Animal Crossings: | Yes |
| | Gullies: | None | | 5.5 | Channel Alterations | |
| | Number of Gullies | | | Straightening: | Straightening | |
| | Total Length of Gullies (ft.): | | | Length (ft.): | 339.3 | |
| | Average Height of Gullies | | | Dredging: | Gravel Mining | |



Stream Geomorphic Assessment

Agency of Natural Resources



Vermont.gov
July, 17 2024

Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **T2.02 -B**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 0.0 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 0.0 | 0.0 |
| | Erosion Height (ft.): | 0.0 | 0.0 |
| | Revetment Type: | Rip-Rap | Rip-Rap |
| | Revetment length | 310.9 | 296.2 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 0 | 913 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | 0 |
| | Road Ditch | 0 |
| | Field Ditch | 0 |
| | Tile Drain | 1 |
| | Other | 0 |
| | Ub Strm Wtr Pipe | 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 871.8 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T3.06 -0

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|--------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 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.): | 150.0 | 150.0 |
| | Erosion Height (ft.): | 2.0 | 2.0 |
| | Revetment Type: | None | None |
| | 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: | None | |
| | 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: | 2 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 2 |
| | Channel Avulsions: | 2 |
| | Braiding: | 2 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 2 |
| | Head Cuts: | 2 |
| 5.4 | Animal Crossings: | No |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Stream Geomorphic Assessment

Agency of Natural Resources



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July, 17 2024

Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **T3.02 -0**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|-----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 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.): | 400.0 | 320.0 |
| | Erosion Height (ft.): | 4.0 | 4.0 |
| | Revetment Type: | Rip-Rap | Rip-Rap |
| | Revetment length | 50.0 | 50.0 |
| 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.): | 35.0 | 35.0 |
| | Mass Failures: | Multiple | |
| | Average Heigh (ft.): | 35.0 | |
| | 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: | 1 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 2 |
| | Channel Avulsions: | 2 |
| | Braiding: | 2 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 2 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | None |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Stream Geomorphic Assessment

Agency of Natural Resources



Vermont.gov
July, 17 2024

Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **M03 -B**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 38.8 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 823.4 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 1,231.1 | 1,040.1 |
| | Erosion Height (ft.): | 6.8 | 7.4 |
| | Revetment Type: | Rip-Rap | Rip-Rap |
| | Revetment length | 424.8 | 95.9 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 1251 | 1510 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 1 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow 0 | Road Ditch 0 |
| | Field Ditch 2 | Tile Drain 0 |
| | Other 0 | Ub Strm Wtr Pipe 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 1 |
| | Channel Avulsions: | 1 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 343.8 |
| | Dredging: | None |



Stream Geomorphic Assessment

Agency of Natural Resources



Vermont.gov
July, 17 2024

Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **M03 -B**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 38.8 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 823.4 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 1,231.1 | 1,040.1 |
| | Erosion Height (ft.): | 6.8 | 7.4 |
| | Revetment Type: | Rip-Rap | Rip-Rap |
| | Revetment length | 424.8 | 95.9 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 1251 | 1510 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 1 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow 1 | Road Ditch 0 |
| | Field Ditch 0 | Tile Drain 0 |
| | Other 0 | Ub Strm Wtr Pipe 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 1 |
| | Channel Avulsions: | 1 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 343.8 |
| | Dredging: | None |



Stream Geomorphic Assessment

Agency of Natural Resources



Vermont.gov
July, 17 2024

Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: **4.56**

Reach: **M03 -B**

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 38.8 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 823.4 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 1,231.1 | 1,040.1 |
| | Erosion Height (ft.): | 6.8 | 7.4 |
| | Revetment Type: | Rip-Rap | Rip-Rap |
| | Revetment length | 424.8 | 95.9 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 1251 | 1510 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 1 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow 0 | Road Ditch 0 |
| | Field Ditch 0 | Tile Drain 1 |
| | Other 0 | Ub Strm Wtr Pipe 0 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 1 |
| | Channel Avulsions: | 1 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 343.8 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T3.01 -0

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|----------------|
| 1.2 | Alluvial Fan: | None | |
| 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.): | 1,250.0 | 1,410.0 |
| | Erosion Height (ft.): | 3.0 | 4.0 |
| | Revetment Type: | Rip-Rap | Rip-Rap |
| | Revetment length | 740.0 | 860.0 |
| 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.): | 0.0 | 0.0 |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | 0.0 | |
| | 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: | 1 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 0 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 2 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | Straightening |
| | Length (ft.): | 0.0 |
| | Dredging: | Dredging, Gravel Mining |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T2.02 -A

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|--------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 0.0 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 0.0 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 0.0 | 0.0 |
| | Erosion Height (ft.): | 0.0 | 0.0 |
| | Revetment Type: | None | None |
| | Revetment length | 0.0 | 0.0 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 295 | 0 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 1 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | Road Ditch |
| | Field Ditch | Tile Drain |
| | Other | Ub Strm Wtr Pipe |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 1 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | None |
| | Length (ft.): | 0.0 |
| | Dredging: | None |



Phase 2 - FIT - Legacy Data Report

Black Creek Mouth

SGAT Version: 4.56

Reach: T4.04 -A

| <u>Step</u> | <u>Description</u> | <u>Value</u> | |
|-------------|--------------------------------|----------------|--------------|
| 1.2 | Alluvial Fan: | None | |
| 1.3 | <u>Encroachments - Side</u> | <u>One</u> | <u>Both</u> |
| | Berm Length (ft.): | 0.0 | 0.0 |
| | Path Length (ft.): | 0.0 | 0.0 |
| | Road Length (ft.): | 0.0 | 0.0 |
| | Railroad Lenth (ft.): | 0.0 | 0.0 |
| | Development Length: | 0.0 | 312.5 |
| 3.1 | <u>Erosion - Bank</u> | <u>Left</u> | <u>Right</u> |
| | Erosion Length (ft.): | 351.7 | 106.3 |
| | Erosion Height (ft.): | 6.0 | 6.0 |
| | Revetment Type: | Rip-Rap | None |
| | Revetment length | 279.9 | 0.0 |
| 3.2 | <u>Buffer Less Than 25 ft.</u> | 478 | 373 |
| 3.3 | <u>Riparian Corridor</u> | <u>Left</u> | <u>Right</u> |
| | Mass Failures: | | |
| | Average Height (ft.): | | |
| | Mass Failures: | None | |
| | Average Heigh (ft.): | | |
| | Gullies: | None | |
| | 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: | 0 |
| 4.5 | Flow Regulation Type: | None |
| | Use: | |
| 4.7 | Stormwater Inputs | |
| | Overland Flow | 0 |
| | Road Ditch | 0 |
| | Field Ditch | 0 |
| | Tile Drain | 0 |
| | Other | 0 |
| | Ub Strm Wtr Pipe | 1 |
| 4.9 | Beaver Dams: | 0 |
| | Affected length (ft.): | 0.0 |
| 5.2 | Migration Features | |
| | Flood Chutes: | 2 |
| | Neck Cutoffs: | 0 |
| | Channel Avulsions: | 0 |
| | Braiding: | 0 |
| 5.3 | Steep Riffles and Head Cuts | |
| | Steep Riffles: | 0 |
| | Head Cuts: | 0 |
| 5.4 | Animal Crossings: | Yes |
| 5.5 | Channel Alterations | |
| | Straightening: | None |
| | Length (ft.): | 0.0 |
| | Dredging: | None |