



Stream Geomorphic Assessment

Agency of Natural Resources



Vermont.gov
May, 20 2024

Phase 2 - FIT - Legacy Data Report

Lamoille LCRPC HUC2

SGAT Version: 3

Reach: **R22 -D**

<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.):	1,697.4 0.0
	Railroad Lenth (ft.):	3,498.8 0.0
	Development Length:	207.6 795.0
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	1,497.8 407.9
	Erosion Height (ft.):	5.9 5.0
	Revetment Type:	Rip-Rap Rip-Rap
	Revetment length:	393.4 1,019.4
3.2	<u>Buffer Less Than 25 ft.</u>	
3.3	<u>Riparian Corridor</u>	
	Mass Failures:	None
	Average Height (ft.):	0.0
	Gullies:	None
	Average Height (ft.):	0.0

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	0
4.9	Beaver Dams:	0
	Affected length:	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:	1
	Head Cuts:	0
5.4	Animal Crossings:	No
5.5	Channel Alterations	
	Straightening:	Straightening
	Dredging:	None



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Lamoille LCRPC HUC2

SGAT Version: 3

Reach: **R22 -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.):	2,712.6 482.7
	Railroad Lenth (ft.):	3,258.0 0.0
	Development Length:	2,093.1 78.4
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	258.7 0.0
	Erosion Height (ft.):	5.0 0.0
	Revetment Type:	Rip-Rap None
	Revetment length:	201.7 0.0
3.2	<u>Buffer Less Than 25 ft.</u>	
3.3	<u>Riparian Corridor</u>	
	Mass Failures:	None
	Average Height (ft.):	0.0
	Gullies:	None
	Average Height (ft.):	0.0

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	0
4.9	Beaver Dams:	0
	Affected length:	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
	Dredging:	None



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SGAT Version: 3

Reach: **R19 -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.):	10,053.4 0.0
	Railroad Lenth (ft.):	10,053.6 0.0
	Development Length:	3,857.5 0.0
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	5,884.8 5,796.9
	Erosion Height (ft.):	6.9 6.9
	Revetment Type:	Rip-Rap Rip-Rap
	Revetment length:	922.4 2,594.0
3.2	<u>Buffer Less Than 25 ft.</u>	
3.3	<u>Riparian Corridor</u>	
	Mass Failures:	None
	Average Height (ft.):	0.0
	Gullies:	None
	Average Height (ft.):	0.0

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	1
4.9	Beaver Dams:	0
	Affected length:	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
	Dredging:	None



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SGAT Version: 3

Reach: **R15 -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.):	13,201.6 0.0
	Railroad Lenth (ft.):	20,412.5 0.0
	Development Length:	6,625.2 285.9
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	1,973.4 2,006.0
	Erosion Height (ft.):	6.1 5.0
	Revetment Type:	Rip-Rap Rip-Rap
	Revetment length:	981.4 4,138.3
3.2	<u>Buffer Less Than 25 ft.</u>	
3.3	<u>Riparian Corridor</u>	
	Mass Failures:	One
	Average Height (ft.):	120.0
	Gullies:	Multiple
	Average Height (ft.):	15.0

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	1
4.9	Beaver Dams:	0
	Affected length:	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
	Dredging:	None



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SGAT Version: 3

Reach: **R14 -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.):	2,087.2 307.1
	Railroad Lenth (ft.):	1,498.6 0.0
	Development Length:	281.9 0.0
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	0.0 218.9
	Erosion Height (ft.):	0.0 4.0
	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>	
	Mass Failures:	Multiple
	Average Height (ft.):	62.5
	Gullies:	None
	Average Height (ft.):	0.0

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	0
4.9	Beaver Dams:	0
	Affected length:	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:	None
	Dredging:	None



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Lamoille LCRPC HUC2

SGAT Version: 3

Reach: **R14 -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.):	2,585.8 0.0
	Railroad Lenth (ft.):	2,592.8 0.0
	Development Length:	1,559.4 1,045.0
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	559.0 634.8
	Erosion Height (ft.):	3.3 3.3
	Revetment Type:	Multiple Rip-Rap
	Revetment length:	1,177.5 228.8
3.2	<u>Buffer Less Than 25 ft.</u>	
3.3	<u>Riparian Corridor</u>	
	Mass Failures:	None
	Average Height (ft.):	0.0
	Gullies:	None
	Average Height (ft.):	0.0

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	5
4.9	Beaver Dams:	0
	Affected length:	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:	1
	Head Cuts:	0
5.4	Animal Crossings:	No
5.5	Channel Alterations	
	Straightening:	Straightening
	Dredging:	None



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Lamoille LCRPC HUC2

SGAT Version: 3

Reach: **R22 -C**

<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.):	136.3	0.0
	Railroad Lenth (ft.):	2,178.6	0.0
	Development Length:	621.4	0.0
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	347.1	0.0
	Erosion Height (ft.):	5.0	0.0
	Revetment Type:	None	Multiple
	Revetment length:	0.0	298.8
3.2	<u>Buffer Less Than 25 ft.</u>		
3.3	<u>Riparian Corridor</u>		
	Mass Failures:	None	
	Average Height (ft.):	0.0	
	Gullies:	None	
	Average Height (ft.):	0.0	

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	0
4.9	Beaver Dams:	0
	Affected length:	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:	None
	Dredging:	None



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Lamoille LCRPC HUC2

SGAT Version: 3

Reach: **R20 -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.):	3,660.2 0.0
	Railroad Lenth (ft.):	3,991.3 0.0
	Development Length:	3,076.1 319.1
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	1,556.6 2,670.1
	Erosion Height (ft.):	4.8 6.8
	Revetment Type:	Rip-Rap Rip-Rap
	Revetment length:	1,013.5 1,211.5
3.2	<u>Buffer Less Than 25 ft.</u>	
3.3	<u>Riparian Corridor</u>	
	Mass Failures:	One
	Average Height (ft.):	35.0
	Gullies:	None
	Average Height (ft.):	0.0

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	2
4.9	Beaver Dams:	0
	Affected length:	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
	Dredging:	Gravel Mining



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Lamoille LCRPC HUC2

SGAT Version: 3

Reach: **R23 -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.):	18,984.4 1,707.7
	Railroad Lenth (ft.):	18,355.1 0.0
	Development Length:	8,664.4 783.5
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	8,083.9 7,908.9
	Erosion Height (ft.):	7.8 8.0
	Revetment Type:	Multiple Rip-Rap
	Revetment length:	1,001.4 2,163.7
3.2	<u>Buffer Less Than 25 ft.</u>	
3.3	<u>Riparian Corridor</u>	
	Mass Failures:	None
	Average Height (ft.):	0.0
	Gullies:	None
	Average Height (ft.):	0.0

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	9
4.9	Beaver Dams:	0
	Affected length:	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:	Straightening
	Dredging:	None



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Lamoille LCRPC HUC2

SGAT Version: 3

Reach: R22 -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.):	1,210.8 2,649.1
	Railroad Lenth (ft.):	3,901.0 0.0
	Development Length:	1,981.2 1,414.9
3.1	<u>Erosion - Bank</u>	<u>Left</u> <u>Right</u>
	Erosion Length (ft.):	553.0 1,462.3
	Erosion Height (ft.):	6.9 6.9
	Revetment Type:	Rip-Rap Rip-Rap
	Revetment length:	1,382.3 987.0
3.2	<u>Buffer Less Than 25 ft.</u>	
3.3	<u>Riparian Corridor</u>	
	Mass Failures:	None
	Average Height (ft.):	0.0
	Gullies:	None
	Average Height (ft.):	0.0

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	1
4.9	Beaver Dams:	0
	Affected length:	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:	1
	Head Cuts:	0
5.4	Animal Crossings:	No
5.5	Channel Alterations	
	Straightening:	Straightening
	Dredging:	None



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Lamoille LCRPC HUC2

SGAT Version: 3

Reach: **R23 -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.):	935.2	0.0
	Railroad Lenth (ft.):	0.0	0.0
	Development Length:	973.3	0.0
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	0.0	43.8
	Erosion Height (ft.):	0.0	8.0
	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>		
	Mass Failures:	None	
	Average Height (ft.):	0.0	
	Gullies:	None	
	Average Height (ft.):	0.0	

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	0
4.9	Beaver Dams:	0
	Affected length:	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
	Dredging:	Dredging



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Lamoille LCRPC HUC2

SGAT Version: 3

Reach: **R16 -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	3,403.8
	Railroad Lenth (ft.):	0.0	0.0
	Development Length:	2,743.6	150.9
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	1,305.3	104.8
	Erosion Height (ft.):	6.2	8.0
	Revetment Type:	None	Rip-Rap
	Revetment length:	0.0	206.2
3.2	<u>Buffer Less Than 25 ft.</u>		
3.3	<u>Riparian Corridor</u>		
	Mass Failures:	One	
	Average Height (ft.):	30.0	
	Gullies:	None	
	Average Height (ft.):	0.0	

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	1
4.9	Beaver Dams:	0
	Affected length:	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:	1
	Head Cuts:	0
5.4	Animal Crossings:	No
5.5	Channel Alterations	
	Straightening:	Straightening
	Dredging:	None



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Lamoille LCRPC HUC2

SGAT Version: 3

Reach: **R21 -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.):	9,480.0	0.0
	Railroad Lenth (ft.):	10,758.1	0.0
	Development Length:	5,856.8	0.0
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	4,533.7	3,288.3
	Erosion Height (ft.):	7.1	7.3
	Revetment Type:	Multiple	Multiple
	Revetment length:	1,040.3	1,495.7
3.2	<u>Buffer Less Than 25 ft.</u>		
3.3	<u>Riparian Corridor</u>		
	Mass Failures:	None	
	Average Height (ft.):	0.0	
	Gullies:	None	
	Average Height (ft.):	0.0	

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	2
4.9	Beaver Dams:	0
	Affected length:	0
5.2	Migration Features	
	Flood Chutes:	3
	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
	Dredging:	None



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Lamoille LCRPC HUC2

SGAT Version: 3

Reach: **R18 -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.):	14,349.7	2,898.9
	Railroad Lenth (ft.):	13,197.2	0.0
	Development Length:	7,016.7	4,509.9
3.1	<u>Erosion - Bank</u>	<u>Left</u>	<u>Right</u>
	Erosion Length (ft.):	9,697.2	10,201.5
	Erosion Height (ft.):	6.7	6.2
	Revetment Type:	Multiple	Multiple
	Revetment length:	3,871.7	2,375.6
3.2	<u>Buffer Less Than 25 ft.</u>		
3.3	<u>Riparian Corridor</u>		
	Mass Failures:	None	
	Average Height (ft.):	0.0	
	Gullies:	None	
	Average Height (ft.):	0.0	

<u>Step</u>	<u>Description</u>	<u>Value</u>
4.4	Number of Debris Jams:	0
4.7	Stormwater Inputs	4
4.9	Beaver Dams:	0
	Affected length:	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:	1
	Head Cuts:	0
5.4	Animal Crossings:	No
5.5	Channel Alterations	
	Straightening:	Straightening
	Dredging:	None