

Winooski - Cabot

Basin: **Winooski**
 Stream Name: **Winooski**
 Topo Maps: **Marshfield, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Step 1. Reach Location **Starts at confluence of Mollys Falls Brook**

1.1 Reach Description:
 1.2 Towns: **Cabot, Marshfield**
 1.3 Downstream Latitude: **44.35957**
 1.3 Downstream Longitude: **-72.33699**
Step 2. Stream Type
 2.1 Elevation Upstream: **869**
 2.1 Elevation Downstream: **846**
 2.1 Is Gradient Gentle?: **#Error**
 2.2 Valley Length: **2,095.0 ft.** **0.40** Miles
 2.3 Valley Slope: **1.1**
 2.4 Channel Length: **2,931.0 ft.** **0.56** Miles
 2.5 Channel Slope: **0.78 %**
 2.6 Sinuosity: **1.40**
 2.7 Watershed Area: **24.5 Square Miles**
 2.8 Channel Width: **53.5 feet**
 2.9 Valley Width: **453.0 feet**
 2.10 Confinement Ratio: **8.5**
 2.10 Confinement Type: **Broad**
 2.11 Reference Stream Type: **C**
 Bedform: **Riffle-Pool**
 Sub-Class Slope: **None**
 Bed Material: **Gravel**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**
 3.2 Grade Control: **Ledge**
 3.3 Dominant Geological Mat.: **Till** **64.5 %**
 3.3 Sub-dom. Geological Mat.: **Alluvial**
 3.4 Valley Slope Left: **Ext. Steep**
 3.4 Valley Slope Right: **Very Steep**
 3.5 Soils
 Hydrologic Group: **C** **46.8 %**
 Flooding: **None/Rare** **77.9 %**
 Water Table Deep: **1.5** **61.8 %**
 Water Table Shallow: **0.0** **61.8 %**
 Erodibility: **Very Severe** **77.9 %**

7.4 Comments:
Debris jam potential at bridge near power station

Phase 1 - Reach Summary Report

Reach ID: **R36**
 SGAT Version: **3**
 Date Last Edited:
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 4. Land Cover - Reach Hydrology

4.1 Watershed
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest** **70.6 %**
 Current Sub-Dominant Land Cover: **Crop**
 4.2 Corridor
 Historic Land Cover:: **Crop**
 Current Dominant Land Cover: **Urban** **24.9 %**
 Current Sub-Dominant Land Cover: **Forest**
 4.3 Riparian Buffer Left Bank Right Bank
 Dominant: **>100** **0-25**
 Sub-dominant: **51-100** **>100**
 Length w / less than 25 ft.: **1,465.0 ft.** **1,758.0 ft.**

4.4 Ground Water Inputs: **None**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):
 Type: **None**
 Use:
 5.2 Bridges and Culverts: **2** **0.0 %**
 5.3 Bank Armoring: **0.0** **0.0 %**
 Left: ft. Right: ft.
 5.4 Channel Straightening: **0.0 %**
 5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **1,465.0 ft.** **50.0**
One Side Both Sides
 Road: ft. ft.
 Railroad: ft. ft.
 Berm: ft. ft.
 Improved Path: ft. ft.
 6.2 Development: **147.0 ft.** **0.0 ft.**
 6.3 Channel Bars:
 6.4 Meander Migration: **Migration**
 6.5 Meander Width: **122 ft.** Ratio: **2.3**
 6.6 Wavelength: **256 ft.** Ratio: **4.8**

Step 7. Windshield Survey

7.1 Bank Erosion: ft
 7.2 Bank Height: **Medium** ft
 7.3 Ice/Debris Jam Potential: **Bridge**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	2	2	0	0	0	0	0	2	1	0	1	2	2	1	1	16
High	High	High	N.S.	N.S.	N.S.	N.S.	N.S.	High	Low	N.S.	Low	High	High	Low	Low	

Winooski - Cabot

Phase 1 - Reach Summary Report

Basin: **Winooski**
 Stream Name: **Winooski**
 Topo Maps: **Cabot/Marshfield, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Reach ID: **R37**
 SGAT Version: **3**
 Date Last Edited: **December, 20 2013**
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **Reach starts about 2200 feet upstream of bridge at Power Plant Road**

1.1 Reach Description:

1.2 Towns: **Cabot, Marshfield**

1.3 Downstream Latitude: **44.36480**

1.3 Downstream Longitude: **-72.33530**

Step 2. Stream Type

2.1 Elevation Upstream: **925**

2.1 Elevation Downstream: **869**

2.1 Is Gradient Gentle?: **#Error**

2.2 Valley Length: **10,074.0 ft.** **1.91** Miles

2.3 Valley Slope: **0.6**

2.4 Channel Length: **13,880.0 ft.** **2.63** Miles

2.5 Channel Slope: **0.40 %**

2.6 Sinuosity: **1.38**

2.7 Watershed Area: **24.2** Square Miles

2.8 Channel Width: **39.0** feet

2.9 Valley Width: **1,129.0** feet

2.10 Confinement Ratio: **28.9**

2.10 Confinement Type: **Very Broad**

2.11 Reference Stream Type: **E**

 Bedform: **Riffle-Pool**

 Sub-Class Slope: **None**

 Bed Material: **Bedrock**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**

3.2 Grade Control: **Multiple**

3.3 Dominant Geological Mat.: **Alluvial** **52.2 %**

3.3 Sub-dom. Geological Mat.: **Glacial Lake**

3.4 Valley Slope Left: **Very Steep**

3.4 Valley Slope Right: **Ext. Steep**

3.5 Soils

 Hydrologic Group: **C** **55.7 %**

 Flooding: **Frequent** **52.2 %**

 Water Table Deep: **1.5** **54.8 %**

 Water Table Shallow: **0.0** **55.4 %**

 Erodibility: **Moderate** **37.4 %**

7.4 Comments:

Step 2 reference channel width updated from 53 to 39 based on Phase 2 data. Because this is an E stream type, the narrower field-measured width is likely a closer approximation of the reference channel width.

Step 4. Land Cover - Reach Hydrology

4.1 Watershed

 Historic Land Cover: **Forest**

 Current Dominant Land Cover: **Forest** **70.6 %**

 Current Sub-Dominant Land Cover: **Crop**

4.2 Corridor

 Historic Land Cover:: **Crop**

 Current Dominant Land Cover: **Crop** **23.9 %**

 Current Sub-Dominant Land Cover: **Forest**

4.3 Riparian Buffer

Left Bank Right Bank

 Dominant: **0-25** **0-25**

 Sub-dominant: **51-100** **51-100**

 Length w / less than 25 ft.: **11,104.0 ft.** **12,492.0 ft.**

4.4 Ground Water Inputs: **Abundant**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):

 Type: **None**

 Use:

5.2 Bridges and Culverts: **6** **13.0 %**

5.3 Bank Armoring: **0.0 %**

 Left: ft. Right: ft.

5.4 Channel Straightening: **4,054.0** **29.2 %**

5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **3,470.0 ft.** **25.0**

One Side Both Sides

 Road: ft. ft.

 Railroad: ft. ft.

 Berm: ft. ft.

 Improved Path: ft. ft.

6.2 Development: **694.0 ft.** **0.0 ft.**

6.3 Channel Bars: **Multiple**

6.4 Meander Migration: **Multiple**

6.5 Meander Width: **50 ft.** Ratio: **1.3**

6.6 Wavelength: **50 ft.** Ratio: **1.3**

Step 7. Windshield Survey

7.1 Bank Erosion: **7107.5000000** ft

7.2 Bank Height: **5** ft

7.3 Ice/Debris Jam Potential: **None**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	2	2	0	1	0	2	0	2	1	1	2	2	2	2	0	21
High	High	High	N.S.	Low	N.D.	High	N.S.	High	Low	Low	High	High	High	High	N.S.	

Winooski - Cabot

Phase 1 - Reach Summary Report

Basin: **Winooski**
 Stream Name: **Winooski**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Reach ID: **R38**
 SGAT Version: **3**
 Date Last Edited: **December, 20 2013**
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **In Lower Cabot, reach starts about 600 feet about Saw Mill Road at confluence of T1.01**

1.1 Reach Description:

1.2 Towns: **Cabot**

1.3 Downstream Latitude: **44.39211**

1.3 Downstream Longitude: **-72.33015**

Step 2. Stream Type

2.1 Elevation Upstream: **935**

2.1 Elevation Downstream: **925**

2.1 Is Gradient Gentle?: **#Error**

2.2 Valley Length: **2,852.0 ft.** **0.54** Miles

2.3 Valley Slope: **0.4**

2.4 Channel Length: **4,391.0 ft.** **0.83** Miles

2.5 Channel Slope: **0.23 %**

2.6 Sinuosity: **1.54**

2.7 Watershed Area: **14.1** Square Miles

2.8 Channel Width: **28.3** feet

2.9 Valley Width: **594.0** feet

2.10 Confinement Ratio: **21.0**

2.10 Confinement Type: **Very Broad**

2.11 Reference Stream Type: **E**

 Bedform: **Riffle-Pool**

 Sub-Class Slope: **None**

 Bed Material: **Gravel**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**

3.2 Grade Control: **None**

3.3 Dominant Geological Mat.: **Alluvial** **76.5 %**

3.3 Sub-dom. Geological Mat.: **Glacial Lake**

3.4 Valley Slope Left: **Very Steep**

3.4 Valley Slope Right: **Very Steep**

3.5 Soils

 Hydrologic Group: **C** **85.3 %**

 Flooding: **Frequent** **76.5 %**

 Water Table Deep: **1.5** **78.1 %**

 Water Table Shallow: **0.0** **86.9 %**

 Erodibility: **slight** **21.9 %**

7.4 Comments:

Step 2 reference channel width updated from 41.9 to 28.3 based on Phase 2 data. Because this is an E stream type, the narrower field-measured width is likely a closer approximation of the reference channel width.

Step 4. Land Cover - Reach Hydrology

4.1 Watershed

 Historic Land Cover: **Forest**

 Current Dominant Land Cover: **Forest** **63.9 %**

 Current Sub-Dominant Land Cover: **Crop**

4.2 Corridor

 Historic Land Cover:: **Crop**

 Current Dominant Land Cover: **Wetland** **20.1 %**

 Current Sub-Dominant Land Cover: **Forest**

4.3 Riparian Buffer

Left Bank Right Bank

 Dominant: **0-25** **0-25**

 Sub-dominant: **>100** **>100**

 Length w / less than 25 ft.: **2,634.0 ft.** **4,391.0 ft.**

4.4 Ground Water Inputs: **Abundant**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):

 Type: **None**

 Use:

5.2 Bridges and Culverts: **2** **5.0 %**

5.3 Bank Armoring: **635.0** **14.5 %**

 Left: ft. Right: ft.

5.4 Channel Straightening: **100.0** **2.3 %**

5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **1,097.0 ft.** **25.0**

One Side Both Sides

 Road: ft. ft.

 Railroad: ft. ft.

 Berm: ft. ft.

 Improved Path: ft. ft.

6.2 Development: **220.0 ft.** **0.0 ft.**

6.3 Channel Bars: **Mid-channel**

6.4 Meander Migration: **Migration**

6.5 Meander Width: **133 ft.** Ratio: **4.7**

6.6 Wavelength: **182 ft.** Ratio: **6.4**

Step 7. Windshield Survey

7.1 Bank Erosion: **1047.5000000** ft

7.2 Bank Height: **5** ft

7.3 Ice/Debris Jam Potential: **None**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	2	2	0	0	1	0	0	2	1	1	2	1	1	2	0	17
High	High	High	N.S.	N.S.	Low	N.S.	N.S.	High	Low	Low	High	Low	Low	High	N.S.	

Winooski - Cabot

Phase 1 - Reach Summary Report

Basin: **Winooski**
 Stream Name: **Winooski**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Reach ID: **R39**
 SGAT Version: **3**
 Date Last Edited: **January, 03 2005**
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **Reach starts at Route 215 S bridge and extends to bridge in Cabot Village**

1.1 Reach Description:

1.2 Towns: **Cabot**

1.3 Downstream Latitude: **44.39870**

1.3 Downstream Longitude: **-72.32421**

Step 2. Stream Type

2.1 Elevation Upstream: **1,043**

2.1 Elevation Downstream: **935**

2.1 Is Gradient Gentle?: **#Error**

2.2 Valley Length: **5,300.0 ft.** **1.00** Miles

2.3 Valley Slope: **2.0**

2.4 Channel Length: **5,791.0 ft.** **1.10** Miles

2.5 Channel Slope: **1.86 %**

2.6 Sinuosity: **1.09**

2.7 Watershed Area: **13.3** Square Miles

2.8 Channel Width: **40.9** feet

2.9 Valley Width: **200.0** feet

2.10 Confinement Ratio: **4.9**

2.10 Confinement Type: **Narrow**

2.11 Reference Stream Type: **C**

 Bedform: **Riffle-Pool**

 Sub-Class Slope: **None**

 Bed Material: **Cobble**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**

3.2 Grade Control: **Ledge**

3.3 Dominant Geological Mat.: **Ice-Contact** **46.5 %**

3.3 Sub-dom. Geological Mat.: **Till**

3.4 Valley Slope Left: **Steep**

3.4 Valley Slope Right: **Steep**

3.5 Soils

 Hydrologic Group: **C** **39.0 %**

 Flooding: **None/Rare** **81.1 %**

 Water Table Deep: **6.0** **45.3 %**

 Water Table Shallow: **6.0** **45.3 %**

 Erodibility: **Very Severe** **78.4 %**

7.4 Comments:

Debris jam potential at Elm St. bridge, concrete abutment and wooden bridge

Step 4. Land Cover - Reach Hydrology

4.1 Watershed

 Historic Land Cover: **Forest**

 Current Dominant Land Cover: **Forest** **64.9 %**

 Current Sub-Dominant Land Cover: **Field**

4.2 Corridor

 Historic Land Cover:: **Forest**

 Current Dominant Land Cover: **Forest** **27.6 %**

 Current Sub-Dominant Land Cover: **Urban**

4.3 Riparian Buffer Left Bank Right Bank

 Dominant: **0-25** **>100**

 Sub-dominant: **51-100**

 Length w / less than 25 ft.: **2,316.0 ft.** **1,447.0 ft.**

4.4 Ground Water Inputs: **Minimal**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):

 Type: **None**

 Use:

5.2 Bridges and Culverts: **2** **8.0 %**

5.3 Bank Armoring: **1,923.0** **33.2 %**

 Left: ft. Right: ft.

5.4 Channel Straightening: **1,930.0** **33.3 %**

5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **2,605.0 ft.** **45.0**

One Side Both Sides

 Road: ft. ft.

 Railroad: ft. ft.

 Berm: ft. ft.

 Improved Path: ft. ft.

6.2 Development: **0.0 ft.** **579.0 ft.**

6.3 Channel Bars: **Multiple**

6.4 Meander Migration: **Migration**

6.5 Meander Width: **ft. Ratio: 0.0**

6.6 Wavelength: **ft. Ratio: 0.0**

Step 7. Windshield Survey

7.1 Bank Erosion: **585.0000000** ft

7.2 Bank Height: **6** ft

7.3 Ice/Debris Jam Potential: **Bridge**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	2	2	0	1	2	2	0	2	1	1	1	0	0	1	1	18
High	High	High	N.S.	Low	High	High	N.S.	High	Low	Low	Low	N.D.	N.D.	Low	Low	

Winooski - Cabot

Phase 1 - Reach Summary Report

Basin: **Winooski**
 Stream Name: **Winooski**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Reach ID: **R40**
 SGAT Version: **3**
 Date Last Edited: **December, 20 2013**
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **Reach starts at bridge on north end of Cabot Village**

1.1 Reach Description:
 1.2 Towns: **Cabot**
 1.3 Downstream Latitude: **44.40333**
 1.3 Downstream Longitude: **-72.31105**

Step 2. Stream Type

2.1 Elevation Upstream: **1,053**
 2.1 Elevation Downstream: **1,043**
 2.1 Is Gradient Gentle?: **#Error**
 2.2 Valley Length: **1,316.0 ft.** **0.25** Miles
 2.3 Valley Slope: **0.8**
 2.4 Channel Length: **1,791.0 ft.** **0.34** Miles
 2.5 Channel Slope: **0.56 %**
 2.6 Sinuosity: **1.36**
 2.7 Watershed Area: **11.2 Square Miles**
 2.8 Channel Width: **30.0 feet**
 2.9 Valley Width: **556.0 feet**
 2.10 Confinement Ratio: **18.5**
 2.10 Confinement Type: **Very Broad**
 2.11 Reference Stream Type: **E**
 Bedform: **Riffle-Pool**
 Sub-Class Slope: **None**
 Bed Material: **Gravel**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**
 3.2 Grade Control: **None**
 3.3 Dominant Geological Mat.: **Alluvial** **79.3 %**
 3.3 Sub-dom. Geological Mat.: **Till**
 3.4 Valley Slope Left: **Very Steep**
 3.4 Valley Slope Right: **Very Steep**
 3.5 Soils
 Hydrologic Group: **C** **92.0 %**
 Flooding: **Frequent** **79.3 %**
 Water Table Deep: **1.5** **87.3 %**
 Water Table Shallow: **0.0** **87.3 %**
 Erodibility: **slight** **20.7 %**

7.4 Comments:
Step 2 reference channel width updated from 37.9 to 30.0 based on Phase 2 data. Because this is an E stream type, the narrower field-measured width is likely a closer approximation of the reference channel width.

Step 4. Land Cover - Reach Hydrology

4.1 Watershed
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest** **64.4 %**
 Current Sub-Dominant Land Cover: **Field**
 4.2 Corridor
 Historic Land Cover:: **Crop**
 Current Dominant Land Cover: **Crop** **17.9 %**
 Current Sub-Dominant Land Cover: **Forest**
 4.3 Riparian Buffer Left Bank Right Bank
 Dominant: **0-25** **>100**
 Sub-dominant: **51-100** **26-50**
 Length w / less than 25 ft.: **1,074.0 ft.** **0.0 ft.**

4.4 Ground Water Inputs: **Minimal**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):
 Type: **None**
 Use:
 5.2 Bridges and Culverts: **2** **11.9 %**
 5.3 Bank Armoring: **430.0** **24.0 %**
 Left: ft. Right: ft.
 5.4 Channel Straightening: **100.0** **5.6 %**
 5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **179.0 ft.** **10.0**
 One Side Both Sides
 Road: ft. ft.
 Railroad: ft. ft.
 Berm: ft. ft.
 Improved Path: ft. ft.
 6.2 Development: **90.0 ft.** **0.0 ft.**
 6.3 Channel Bars: **Mid-channel**
 6.4 Meander Migration: **Migration**
 6.5 Meander Width: **132 ft.** Ratio: **4.4**
 6.6 Wavelength: **191 ft.** Ratio: **6.4**

Step 7. Windshield Survey

7.1 Bank Erosion: **630.0000000** ft
 7.2 Bank Height: **6** ft
 7.3 Ice/Debris Jam Potential: **None**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	2	2	0	1	2	1	0	1	1	1	2	1	1	2	0	19
High	High	High	N.S.	Low	High	Low	N.S.	Low	Low	Low	High	Low	Low	High	N.S.	

Winooski - Cabot

Basin: **Winooski**
 Stream Name: **Winooski**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Step 1. Reach Location **Reach starts at confluence of T2.01**

1.1 Reach Description:

1.2 Towns: **Cabot**

1.3 Downstream Latitude: **44.40642**

1.3 Downstream Longitude: **-72.30997**

Step 2. Stream Type

2.1 Elevation Upstream: **1,083**

2.1 Elevation Downstream: **1,053**

2.1 Is Gradient Gentle?: **#Error**

2.2 Valley Length: **2,398.0 ft.** **0.45** Miles

2.3 Valley Slope: **1.3**

2.4 Channel Length: **2,924.0 ft.** **0.55** Miles

2.5 Channel Slope: **1.03 %**

2.6 Sinuosity: **1.22**

2.7 Watershed Area: **8.5 Square Miles**

2.8 Channel Width: **26.5 feet**

2.9 Valley Width: **810.0 feet**

2.10 Confinement Ratio: **30.6**

2.10 Confinement Type: **Very Broad**

2.11 Reference Stream Type: **E**

 Bedform: **Riffle-Pool**

 Sub-Class Slope: **None**

 Bed Material: **Sand**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**

3.2 Grade Control: **Ledge**

3.3 Dominant Geological Mat.: **Alluvial** **76.4 %**

3.3 Sub-dom. Geological Mat.: **Till**

3.4 Valley Slope Left: **Steep**

3.4 Valley Slope Right: **Very Steep**

3.5 Soils

 Hydrologic Group: **C** **89.3 %**

 Flooding: **Frequent** **76.4 %**

 Water Table Deep: **1.5** **76.4 %**

 Water Table Shallow: **0.0** **76.4 %**

 Erodibility: **slight** **23.6 %**

7.4 Comments:

Step 2 reference channel width updated from 33.6 to 26.5 based on Phase 2 data. Because this is an E stream type, the narrower field-measured width is likely a closer approximation of the reference channel width.

Phase 1 - Reach Summary Report

Reach ID: **R41**
 SGAT Version: **3**
 Date Last Edited: **December, 20 2013**
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 4. Land Cover - Reach Hydrology

4.1 Watershed

 Historic Land Cover: **Forest**

 Current Dominant Land Cover: **Forest** **65.9 %**

 Current Sub-Dominant Land Cover: **Field**

4.2 Corridor

 Historic Land Cover:: **Crop**

 Current Dominant Land Cover: **Wetland** **18.0 %**

 Current Sub-Dominant Land Cover: **Forest**

4.3 Riparian Buffer Left Bank Right Bank

 Dominant: **0-25** **0-25**

 Sub-dominant: **>100** **>100**

 Length w / less than 25 ft.: **2,046.0 ft.** **1,754.0 ft.**

4.4 Ground Water Inputs: **Abundant**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):

 Type: **None**

 Use:

5.2 Bridges and Culverts: **2** **5.0 %**

5.3 Bank Armoring: **80.0** **2.7 %**

 Left: ft. Right: ft.

5.4 Channel Straightening: **0.0 %**

5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **0.0 ft.** **0.0**

One Side Both Sides

 Road: ft. ft.

 Railroad: ft. ft.

 Berm: ft. ft.

 Improved Path: ft. ft.

6.2 Development: **146.0 ft.** **0.0 ft.**

6.3 Channel Bars: **Mid-channel**

6.4 Meander Migration: **Migration**

6.5 Meander Width: **88 ft.** Ratio: **3.3**

6.6 Wavelength: **134 ft.** Ratio: **5.1**

Step 7. Windshield Survey

7.1 Bank Erosion: **15.0000000** ft

7.2 Bank Height: **4** ft

7.3 Ice/Debris Jam Potential: **None**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	2	2	0	0	0	0	0	0	0	1	2	1	2	0	0	12
High	High	High	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	Low	High	Low	High	N.S.	N.S.	

Winooski - Cabot

Basin: **Winooski**
 Stream Name: **Winooski**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Phase 1 - Reach Summary Report

Reach ID: **R42**
 SGAT Version: **3**
 Date Last Edited: **December, 20 2013**
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **Reach ends at T3.01**

1.1 Reach Description:

1.2 Towns: **Cabot**

1.3 Downstream Latitude: **44.41207**

1.3 Downstream Longitude: **-72.31344**

Step 2. Stream Type

2.1 Elevation Upstream: **1,115**

2.1 Elevation Downstream: **1,083**

2.1 Is Gradient Gentle?: **#Error**

2.2 Valley Length: **2,574.0 ft.** **0.49** Miles

2.3 Valley Slope: **1.2**

2.4 Channel Length: **3,322.0 ft.** **0.63** Miles

2.5 Channel Slope: **0.96 %**

2.6 Sinuosity: **1.29**

2.7 Watershed Area: **7.7** Square Miles

2.8 Channel Width: **20.9** feet

2.9 Valley Width: **456.0** feet

2.10 Confinement Ratio: **21.8**

2.10 Confinement Type: **Very Broad**

2.11 Reference Stream Type: **E**

Bedform: **Riffle-Pool**

Sub-Class Slope: **None**

Bed Material: **Gravel**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**

3.2 Grade Control: **Ledge**

3.3 Dominant Geological Mat.: **Alluvial** **50.5 %**

3.3 Sub-dom. Geological Mat.: **Till**

3.4 Valley Slope Left: **Very Steep**

3.4 Valley Slope Right: **Very Steep**

3.5 Soils

Hydrologic Group: **C** **88.8 %**

Flooding: **Frequent** **50.5 %**

Water Table Deep: **1.5** **50.5 %**

Water Table Shallow: **0.0** **50.5 %**

Erodibility: **Moderate** **49.5 %**

7.4 Comments:

Step 2 reference channel width updated from 32.0 to 20.9 based on Phase 2 data. Because this is an E stream type, the narrower field-measured width is likely a closer approximation of the reference channel width.

Step 4. Land Cover - Reach Hydrology

4.1 Watershed

Historic Land Cover: **Forest**

Current Dominant Land Cover: **Forest** **67.5 %**

Current Sub-Dominant Land Cover: **Field**

4.2 Corridor

Historic Land Cover:: **Crop**

Current Dominant Land Cover: **Forest** **30.0 %**

Current Sub-Dominant Land Cover: **Field**

4.3 Riparian Buffer **Left Bank** **Right Bank**

Dominant: **0-25** **0-25**

Sub-dominant: **>100** **>100**

Length w / less than 25 ft.: **1,827.0 ft.** **1,993.0 ft.**

4.4 Ground Water Inputs: **Abundant**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):

Type: **None**

Use:

5.2 Bridges and Culverts: **2** **0.1 %**

5.3 Bank Armoring: **420.0** **12.6 %**

Left: ft. Right: ft.

5.4 Channel Straightening: **450.0** **13.5 %**

5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **498.0 ft.** **15.0**

One Side **Both Sides**

Road: ft. ft.

Railroad: ft. ft.

Berm: ft. ft.

Improved Path: ft. ft.

6.2 Development: **0.0 ft.** **0.0 ft.**

6.3 Channel Bars:

6.4 Meander Migration: **Migration**

6.5 Meander Width: **75 ft.** Ratio: **3.6**

6.6 Wavelength: **117 ft.** Ratio: **5.6**

Step 7. Windshield Survey

7.1 Bank Erosion: **435.0000000** ft

7.2 Bank Height: **5** ft

7.3 Ice/Debris Jam Potential: **None**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	1	2	0	0	1	1	0	1	0	0	2	1	2	1	0	14
High	Low	High	N.S.	N.S.	Low	Low	N.S.	Low	N.S.	N.S.	High	Low	High	Low	N.S.	

Winooski - Cabot

Basin: **Winooski**
 Stream Name: **Winooski**
 Topo Maps:
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Step 1. Reach Location **Reach begins at T3.01**

1.1 Reach Description:
 1.2 Towns: **Cabot**
 1.3 Downstream Latitude: **44.41830**
 1.3 Downstream Longitude: **-72.31554**

Step 2. Stream Type

2.1 Elevation Upstream: **1,161**
 2.1 Elevation Downstream: **1,115**
 2.1 Is Gradient Gentle?: **#Error**
 2.2 Valley Length: **3,360.0 ft.** **0.64** Miles
 2.3 Valley Slope: **1.4**
 2.4 Channel Length: **3,849.0 ft.** **0.73** Miles
 2.5 Channel Slope: **1.20 %**
 2.6 Sinuosity: **1.15**
 2.7 Watershed Area: **3.0** Square Miles
 2.8 Channel Width: **21.3** feet
 2.9 Valley Width: feet
 2.10 Confinement Ratio: **0.0**
 2.10 Confinement Type: **Semi-confined**
 2.11 Reference Stream Type: **B**
 Bedform: **Plane Bed**
 Sub-Class Slope: **c**
 Bed Material: **Cobble**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**
 3.2 Grade Control: **Ledge**
 3.3 Dominant Geological Mat.: **Other** **56.6 %**
 3.3 Sub-dom. Geological Mat.: **Till**
 3.4 Valley Slope Left: **Ext. Steep**
 3.4 Valley Slope Right: **Ext. Steep**
 3.5 Soils
 Hydrologic Group: **D** **56.6 %**
 Flooding: **None/Rare** **100.0 %**
 Water Table Deep: **0.5** **56.6 %**
 Water Table Shallow: **-1.0** **56.6 %**
 Erodibility: **Moderate** **43.4 %**
 7.4 Comments:

Phase 1 - Reach Summary Report

Reach ID: **R43**
 SGAT Version: **3**
 Date Last Edited:
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 4. Land Cover - Reach Hydrology

4.1 Watershed
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest** **72.4 %**
 Current Sub-Dominant Land Cover: **Field**
 4.2 Corridor
 Historic Land Cover:: **Forest**
 Current Dominant Land Cover: **Forest** **77.0 %**
 Current Sub-Dominant Land Cover: **Wetland**
 4.3 Riparian Buffer Left Bank Right Bank
 Dominant: **>100** **>100**
 Sub-dominant: **51-100** **51-100**
 Length w / less than 25 ft.: **0.0 ft.** **0.0 ft.**

4.4 Ground Water Inputs: **Abundant**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):
 Type: **None**
 Use:
 5.2 Bridges and Culverts: **1** **0.0 %**
 5.3 Bank Armoring: **0.0 %**
 Left: ft. Right: ft.
 5.4 Channel Straightening: **0.0 %**
 5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **0.0 ft.** **0.0**
 One Side Both Sides
 Road: ft. ft.
 Railroad: ft. ft.
 Berm: ft. ft.
 Improved Path: ft. ft.
 6.2 Development: **0.0 ft.** **0.0 ft.**
 6.3 Channel Bars:
 6.4 Meander Migration: **None**
 6.5 Meander Width: **ft. Ratio: 0.0**
 6.6 Wavelength: **ft. Ratio: 0.0**

Step 7. Windshield Survey

7.1 Bank Erosion: **ft**
 7.2 Bank Height: **Low** **ft**
 7.3 Ice/Debris Jam Potential: **None**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
High	Low	N.S.	N.S.	N.S.	N.D.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.D.	N.D.	N.S.	N.S.	

Winooski - Cabot

Phase 1 - Reach Summary Report

Basin: **Winooski**
 Stream Name: **Winooski**

Reach ID: **R44**
 SGAT Version: **3**
 Date Last Edited:
 QA Status: **Step 7 done**

Topo Maps:
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **Reach starts about 2600 feet above Houston Hill Road Culvert**

1.1 Reach Description:

1.2 Towns: **Cabot**

1.3 Downstream Latitude: **44.42712**

1.3 Downstream Longitude: **-72.31797**

Step 2. Stream Type

2.1 Elevation Upstream: **1,220**

2.1 Elevation Downstream: **1,161**

2.1 Is Gradient Gentle?: **#Error**

2.2 Valley Length: **1,360.0 ft.** **0.26** Miles

2.3 Valley Slope: **4.3**

2.4 Channel Length: **1,404.0 ft.** **0.27** Miles

2.5 Channel Slope: **4.20 %**

2.6 Sinuosity: **1.03**

2.7 Watershed Area: **2.2** Square Miles

2.8 Channel Width: **18.4** feet

2.9 Valley Width: feet

2.10 Confinement Ratio: **0.0**

2.10 Confinement Type: **Semi-confined**

2.11 Reference Stream Type: **B**

 Bedform: **Step-Pool**

 Sub-Class Slope: **a**

 Bed Material: **No Data**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**

3.2 Grade Control: **No Data**

3.3 Dominant Geological Mat.: **Till** **100.0 %**

3.3 Sub-dom. Geological Mat.:

3.4 Valley Slope Left: **Ext. Steep**

3.4 Valley Slope Right: **Very Steep**

3.5 Soils

 Hydrologic Group: **B** **100.0 %**

 Flooding: **None/Rare** **100.0 %**

 Water Table Deep: **6.0** **100.0 %**

 Water Table Shallow: **6.0** **100.0 %**

 Erodibility: **Very Severe** **100.0 %**

7.4 Comments:

Not accessible

Step 4. Land Cover - Reach Hydrology

4.1 Watershed

 Historic Land Cover: **Forest**

 Current Dominant Land Cover: **Forest** **80.3 %**

 Current Sub-Dominant Land Cover: **Urban**

4.2 Corridor

 Historic Land Cover:: **Forest**

 Current Dominant Land Cover: **Forest** **76.6 %**

 Current Sub-Dominant Land Cover:

4.3 Riparian Buffer Left Bank Right Bank

 Dominant: **>100** **>100**

 Sub-dominant: **51-100** **51-100**

 Length w / less than 25 ft.: **0.0 ft.** **0.0 ft.**

4.4 Ground Water Inputs: **None**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):

 Type: **None**

 Use:

5.2 Bridges and Culverts: **0** **0.0 %**

5.3 Bank Armoring: **0.0 %**

 Left: ft. Right: ft.

5.4 Channel Straightening: **0.0 %**

5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **0.0 ft.** **0.0**

One Side Both Sides

 Road: ft. ft.

 Railroad: ft. ft.

 Berm: ft. ft.

 Improved Path: ft. ft.

6.2 Development: **0.0 ft.** **0.0 ft.**

6.3 Channel Bars:

6.4 Meander Migration: **None**

6.5 Meander Width: ft. Ratio: **0.0**

6.6 Wavelength: ft. Ratio: **0.0**

Step 7. Windshield Survey

7.1 Bank Erosion: ft

7.2 Bank Height: **No Data** ft

7.3 Ice/Debris Jam Potential: **No Data**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Low	N.S.	N.S.	N.S.	N.S.	N.D.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.D.	N.D.	N.S.	N.S.	

Winooski - Cabot

Basin: **Winooski**
 Stream Name: **Winooski**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Phase 1 - Reach Summary Report

Reach ID: **R45**
 SGAT Version: **3**
 Date Last Edited:
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **Below Coits Pond**

1.1 Reach Description:
 1.2 Towns: **Cabot**
 1.3 Downstream Latitude: **44.43079**
 1.3 Downstream Longitude: **-72.31722**

Step 2. Stream Type

2.1 Elevation Upstream: **1,322**
 2.1 Elevation Downstream: **1,220**
 2.1 Is Gradient Gentle?: **#Error**
 2.2 Valley Length: **6,730.0 ft.** **1.27** Miles
 2.3 Valley Slope: **1.5**
 2.4 Channel Length: **8,096.0 ft.** **1.53** Miles
 2.5 Channel Slope: **1.26 %**
 2.6 Sinuosity: **1.20**
 2.7 Watershed Area: **2.0** Square Miles
 2.8 Channel Width: **17.8** feet
 2.9 Valley Width: **feet**
 2.10 Confinement Ratio: **0.0**
 2.10 Confinement Type: **Semi-confined**
 2.11 Reference Stream Type: **B**
 Bedform: **Plane Bed**
 Sub-Class Slope: **c**
 Bed Material: **Sand**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**
 3.2 Grade Control: **No Data**
 3.3 Dominant Geological Mat.: **Other** **54.1 %**
 3.3 Sub-dom. Geological Mat.: **Till**
 3.4 Valley Slope Left: **Very Steep**
 3.4 Valley Slope Right: **Very Steep**
 3.5 Soils
 Hydrologic Group: **D** **98.1 %**
 Flooding: **None/Rare** **100.0 %**
 Water Table Deep: **0.5** **54.1 %**
 Water Table Shallow: **-1.0** **54.1 %**
 Erodibility: **Moderate** **45.9 %**
 7.4 Comments:

Step 4. Land Cover - Reach Hydrology

4.1 Watershed
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest** **79.0 %**
 Current Sub-Dominant Land Cover: **Urban**
 4.2 Corridor
 Historic Land Cover:: **Forest**
 Current Dominant Land Cover: **Forest** **61.6 %**
 Current Sub-Dominant Land Cover: **Wetland**
 4.3 Riparian Buffer **Left Bank** **Right Bank**
 Dominant: **>100** **>100**
 Sub-dominant: **51-100** **51-100**
 Length w / less than 25 ft.: **0.0 ft.** **0.0 ft.**

4.4 Ground Water Inputs: **Abundant**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):
 Type: **None**
 Use:
 5.2 Bridges and Culverts: **1** **1.0 %**
 5.3 Bank Armoring: **0.0 %**
 Left: **ft.** Right: **ft.**
 5.4 Channel Straightening: **0.0 %**
 5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **0.0 ft.** **0.0**
 One Side **Both Sides**
 Road: **ft.** **ft.**
 Railroad: **ft.** **ft.**
 Berm: **ft.** **ft.**
 Improved Path: **ft.** **ft.**
 6.2 Development: **0.0 ft.** **0.0 ft.**
 6.3 Channel Bars:
 6.4 Meander Migration: **None**
 6.5 Meander Width: **ft. Ratio: 0.0**
 6.6 Wavelength: **ft. Ratio: 0.0**

Step 7. Windshield Survey

7.1 Bank Erosion: **ft**
 7.2 Bank Height: **Low** **ft**
 7.3 Ice/Debris Jam Potential: **None**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Low	Low	N.S.	N.S.	N.S.	N.D.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.D.	N.D.	N.S.	N.S.	

Winooski - Cabot

Basin: **Winooski**
 Stream Name: **Winooski**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Step 1. Reach Location **Includes Coits Pond**

1.1 Reach Description:
 1.2 Towns: **Cabot, Woodbury**
 1.3 Downstream Latitude: **44.44407**
 1.3 Downstream Longitude: **-72.32545**

Step 2. Stream Type

2.1 Elevation Upstream: **1,388**
 2.1 Elevation Downstream: **1,322**
 2.1 Is Gradient Gentle?: **#Error**
 2.2 Valley Length: **3,232.0 ft.** **0.61** Miles
 2.3 Valley Slope: **2.0**
 2.4 Channel Length: **3,232.0 ft.** **0.61** Miles
 2.5 Channel Slope: **2.04 %**
 2.6 Sinuosity: **1.00**
 2.7 Watershed Area: **0.6** Square Miles
 2.8 Channel Width: **10.6** feet
 2.9 Valley Width: feet
 2.10 Confinement Ratio: **0.0**
 2.10 Confinement Type: **Semi-confined**
 2.11 Reference Stream Type:
 Bedform:
 Sub-Class Slope:
 Bed Material: **No Data**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**
 3.2 Grade Control: **No Data**
 3.3 Dominant Geological Mat.: **Till** **100.0 %**
 3.3 Sub-dom. Geological Mat.:
 3.4 Valley Slope Left: **Very Steep**
 3.4 Valley Slope Right: **Very Steep**
 3.5 Soils
 Hydrologic Group: **D** **92.9 %**
 Flooding: **None/Rare** **100.0 %**
 Water Table Deep: **1.5** **92.9 %**
 Water Table Shallow: **0.0** **92.9 %**
 Erodibility: **Very Severe** **100.0 %**

7.4 Comments:
Most of this reach is Coits Pond

Phase 1 - Reach Summary Report

Reach ID: **R46**
 SGAT Version: **3**
 Date Last Edited:
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 4. Land Cover - Reach Hydrology

4.1 Watershed
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest** **80.1 %**
 Current Sub-Dominant Land Cover: **Urban**
 4.2 Corridor
 Historic Land Cover:: **Forest**
 Current Dominant Land Cover: **Forest** **38.6 %**
 Current Sub-Dominant Land Cover: **Urban**
 4.3 Riparian Buffer Left Bank Right Bank
 Dominant: **>100** **>100**
 Sub-dominant: **51-100** **51-100**
 Length w / less than 25 ft.: **0.0 ft.** **0.0 ft.**

4.4 Ground Water Inputs: **Abundant**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):
 Type: **None**
 Use:
 5.2 Bridges and Culverts: **0** **0.0 %**
 5.3 Bank Armoring: **0.0 %**
 Left: ft. Right: ft.
 5.4 Channel Straightening: **0.0 %**
 5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **0.0 ft.** **0.0**
 One Side Both Sides
 Road: ft. ft.
 Railroad: ft. ft.
 Berm: ft. ft.
 Improved Path: ft. ft.
 6.2 Development: **0.0 ft.** **0.0 ft.**
 6.3 Channel Bars:
 6.4 Meander Migration: **None**
 6.5 Meander Width: ft. Ratio: **0.0**
 6.6 Wavelength: ft. Ratio: **0.0**

Step 7. Windshield Survey

7.1 Bank Erosion: ft
 7.2 Bank Height: **No Data** ft
 7.3 Ice/Debris Jam Potential: **No Data**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Low	Low	N.S.	N.S.	N.S.	N.D.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.D.	N.D.	N.S.	N.S.	

Winooski - Cabot

Basin: **Winooski**
 Stream Name: **Jug Brook**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Step 1. Reach Location **Jug Brook in Lower Cabot**

1.1 Reach Description:
 1.2 Towns: **Cabot**
 1.3 Downstream Latitude: **44.39210**
 1.3 Downstream Longitude: **-72.33021**
 Step 2. Stream Type
 2.1 Elevation Upstream: **942**
 2.1 Elevation Downstream: **925**
 2.1 Is Gradient Gentle?: **#Error**
 2.2 Valley Length: **1,786.0 ft. 0.34 Miles**
 2.3 Valley Slope: **1.0**
 2.4 Channel Length: **3,244.0 ft. 0.61 Miles**
 2.5 Channel Slope: **0.52 %**
 2.6 Sinuosity: **1.82**
 2.7 Watershed Area: **7.4 Square Miles**
 2.8 Channel Width: **31.5 feet**
 2.9 Valley Width: **624.0 feet**
 2.10 Confinement Ratio: **19.8**
 2.10 Confinement Type: **Very Broad**
 2.11 Reference Stream Type: **C**

Bedform: **Riffle-Pool**
 Sub-Class Slope: **None**
 Bed Material: **Sand**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**
 3.2 Grade Control: **None**
 3.3 Dominant Geological Mat.: **Ice-Contact 86.7 %**
 3.3 Sub-dom. Geological Mat.: **Glacial Lake**
 3.4 Valley Slope Left: **Very Steep**
 3.4 Valley Slope Right: **Very Steep**
 3.5 Soils
 Hydrologic Group: **C 85.4 %**
 Flooding: **None/Rare 100.0 %**
 Water Table Deep: **1.5 85.4 %**
 Water Table Shallow: **0.0 95.4 %**
 Erodibility: **slight 14.6 %**

7.4 Comments:
**Bridge at crossing of Route 215. No defined pools - filled with sand.
 Stream channelized for ~ 600 feet by Derek's Country Store (Route 215).**

Phase 1 - Reach Summary Report

Reach ID: **T1.01**
 SGAT Version: **3**
 Date Last Edited:
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 4. Land Cover - Reach Hydrology

4.1 Watershed
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest 81.2 %**
 Current Sub-Dominant Land Cover: **Urban**
 4.2 Corridor
 Historic Land Cover:: **Crop**
 Current Dominant Land Cover: **Wetland 19.8 %**
 Current Sub-Dominant Land Cover: **Urban**
 4.3 Riparian Buffer **Left Bank Right Bank**
 Dominant: **0-25 0-25**
 Sub-dominant: **26-50 26-50**
 Length w / less than 25 ft.: **2,433.0 ft. 1,946.0 ft.**

4.4 Ground Water Inputs: **Abundant**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):
 Type: **None**
 Use:
 5.2 Bridges and Culverts: **2 33.0 %**
 5.3 Bank Armoring: **15.0 0.5 %**
 Left: ft. Right: ft.
 5.4 Channel Straightening: **600.0 18.5 %**
 5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **162.0 ft. 5.0**
One Side Both Sides
 Road: ft. ft.
 Railroad: ft. ft.
 Berm: ft. ft.
 Improved Path: ft. ft.
 6.2 Development: **162.0 ft. 0.0 ft.**
 6.3 Channel Bars: **Mid-channel**
 6.4 Meander Migration: **Multiple**
 6.5 Meander Width: **51 ft. Ratio: 1.6**
 6.6 Wavelength: **118 ft. Ratio: 3.7**

Step 7. Windshield Survey

7.1 Bank Erosion: ft
 7.2 Bank Height: **Medium** ft
 7.3 Ice/Debris Jam Potential: **Bridge**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
1	2	2	0	2	0	1	0	0	0	1	1	2	2	1	1	16
Low	High	High	N.S.	High	N.S.	Low	N.S.	N.S.	N.S.	Low	Low	High	High	Low	Low	

Winooski - Cabot

Basin: **Winooski**
 Stream Name: **Jug Brook**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Step 1. Reach Location **Reach runs along West Hill Pond Road**

1.1 Reach Description:

1.2 Towns: **Cabot**

1.3 Downstream Latitude: **44.39371**

1.3 Downstream Longitude: **-72.33652**

Step 2. Stream Type

2.1 Elevation Upstream: **1,043**

2.1 Elevation Downstream: **942**

2.1 Is Gradient Gentle?: **#Error**

2.2 Valley Length: **4,986.0 ft.** **0.94** Miles

2.3 Valley Slope: **2.0**

2.4 Channel Length: **5,941.0 ft.** **1.13** Miles

2.5 Channel Slope: **1.70 %**

2.6 Sinuosity: **1.19**

2.7 Watershed Area: **7.0** Square Miles

2.8 Channel Width: **30.8** feet

2.9 Valley Width: feet

2.10 Confinement Ratio: **0.0**

2.10 Confinement Type: **Semi-confined**

2.11 Reference Stream Type: **B**

 Bedform: **Step-Pool**

 Sub-Class Slope: **None**

 Bed Material: **Cobble**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**

3.2 Grade Control: **Ledge**

3.3 Dominant Geological Mat.: **Ice-Contact** **90.2 %**

3.3 Sub-dom. Geological Mat.: **Till**

3.4 Valley Slope Left: **Steep**

3.4 Valley Slope Right: **Very Steep**

3.5 Soils

 Hydrologic Group: **A** **56.7 %**

 Flooding: **None/Rare** **100.0 %**

 Water Table Deep: **6.0** **65.9 %**

 Water Table Shallow: **6.0** **65.9 %**

 Erodibility: **Severe** **72.6 %**

7.4 Comments:

Debris jam potential at culvert under Blodget Road. This reach should be broken into subreach, if a phase 2 assessment is undertaken. The section by Blodget Road is riffle-pool, while the other section is step-pool.

Phase 1 - Reach Summary Report

Reach ID: **T1.02**

SGAT Version: **3**

Date Last Edited:

QA Status: **Step 7 done**

Is Reach An Impoundment?: **#Error**

Step 4. Land Cover - Reach Hydrology

4.1 Watershed

 Historic Land Cover: **Forest**

 Current Dominant Land Cover: **Forest** **82.3 %**

 Current Sub-Dominant Land Cover: **Urban**

4.2 Corridor

 Historic Land Cover:: **Forest**

 Current Dominant Land Cover: **Urban** **28.0 %**

 Current Sub-Dominant Land Cover: **Forest**

4.3 Riparian Buffer Left Bank Right Bank

 Dominant: **26-50** **>100**

 Sub-dominant: **0-25** **0-25**

 Length w / less than 25 ft.: **1,485.0 ft.** **594.0 ft.**

4.4 Ground Water Inputs: **Abundant**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):

 Type: **None**

 Use:

5.2 Bridges and Culverts: **1** %

5.3 Bank Armoring: **0.0** **0.0 %**

 Left: ft. Right: ft.

5.4 Channel Straightening: **0.0 %**

5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **1,782.0 ft.** **30.0**

One Side Both Sides

 Road: ft. ft.

 Railroad: ft. ft.

 Berm: ft. ft.

 Improved Path: ft. ft.

6.2 Development: **297.0 ft.** **0.0 ft.**

6.3 Channel Bars:

6.4 Meander Migration: **None**

6.5 Meander Width: ft. Ratio: **0.0**

6.6 Wavelength: ft. Ratio: **0.0**

Step 7. Windshield Survey

7.1 Bank Erosion: ft

7.2 Bank Height: **High** ft

7.3 Ice/Debris Jam Potential: **Culvert**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
1	2	2	0	0	0	0	0	2	0	0	0	0	0	1	1	9
Low	High	High	N.S.	Unk.	N.S.	N.S.	N.S.	High	N.S.	N.S.	N.S.	N.D.	N.D.	Low	Low	

Winooski - Cabot

Basin: **Winooski**
 Stream Name: **Jug Brook**
 Topo Maps: **Cabot/Woodbury, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Step 1. Reach Location **Headwaters of Jug Brook**

1.1 Reach Description:
 1.2 Towns: **Cabot, Woodbury**
 1.3 Downstream Latitude: **44.41158**
 1.3 Downstream Longitude: **-72.35507**
Step 2. Stream Type
 2.1 Elevation Upstream: **1,650**
 2.1 Elevation Downstream: **1,201**
 2.1 Is Gradient Gentle?: **#Error**
 2.2 Valley Length: **14,309.0 ft.** **2.71** Miles
 2.3 Valley Slope: **3.1**
 2.4 Channel Length: **16,610.0 ft.** **3.15** Miles
 2.5 Channel Slope: **2.70 %**
 2.6 Sinuosity: **1.16**
 2.7 Watershed Area: **2.7** Square Miles
 2.8 Channel Width: **20.4** feet
 2.9 Valley Width: feet
 2.10 Confinement Ratio: **0.0**
 2.10 Confinement Type: **Semi-confined**
 2.11 Reference Stream Type: **B**
 Bedform: **Step-Pool**
 Sub-Class Slope: **None**
 Bed Material: **No Data**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**
 3.2 Grade Control: **No Data**
 3.3 Dominant Geological Mat.: **Till** **87.9 %**
 3.3 Sub-dom. Geological Mat.: **Other**
 3.4 Valley Slope Left: **Steep**
 3.4 Valley Slope Right: **Steep**
 3.5 Soils
 Hydrologic Group: **D** **83.9 %**
 Flooding: **None/Rare** **100.0 %**
 Water Table Deep: **1.5** **62.5 %**
 Water Table Shallow: **0.0** **62.5 %**
 Erodibility: **Very Severe** **78.7 %**
 7.4 Comments:

Phase 1 - Reach Summary Report

Reach ID: **T1.04**
 SGAT Version: **3**
 Date Last Edited:
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 4. Land Cover - Reach Hydrology

4.1 Watershed
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest** **90.3 %**
 Current Sub-Dominant Land Cover: **Urban**
 4.2 Corridor
 Historic Land Cover:: **Forest**
 Current Dominant Land Cover: **Forest** **68.2 %**
 Current Sub-Dominant Land Cover: **Urban**
 4.3 Riparian Buffer Left Bank Right Bank
 Dominant: **>100** **>100**
 Sub-dominant: **51-100** **51-100**
 Length w / less than 25 ft.: **0.0 ft.** **0.0 ft.**

4.4 Ground Water Inputs: **Abundant**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):
 Type: **None**
 Use:
 5.2 Bridges and Culverts: **1** %
 5.3 Bank Armoring: **0.0 %**
 Left: ft. Right: ft.
 5.4 Channel Straightening: **0.0 %**
 5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **0.0 ft.** **0.0**
 One Side Both Sides
 Road: ft. ft.
 Railroad: ft. ft.
 Berm: ft. ft.
 Improved Path: ft. ft.
 6.2 Development: **831.0 ft.** **0.0 ft.**
 6.3 Channel Bars:
 6.4 Meander Migration: **None**
 6.5 Meander Width: **ft. Ratio: 0.0**
 6.6 Wavelength: **ft. Ratio: 0.0**

Step 7. Windshield Survey

7.1 Bank Erosion: ft
 7.2 Bank Height: **No Data** ft
 7.3 Ice/Debris Jam Potential: **No Data**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
Low	N.S.	N.S.	N.S.	Unk.	N.D.	N.S.	N.S.	N.S.	Low	N.S.	N.S.	N.D.	N.D.	N.S.	N.S.	

Winooski - Cabot

Basin: **Winooski**
 Stream Name: **unnamed**
 Topo Maps:
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Phase 1 - Reach Summary Report

Reach ID: **T1.S5.01**
 SGAT Version: **3**
 Date Last Edited:
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location

1.1 Reach Description:

1.2 Towns: **Cabot**

1.3 Downstream Latitude: **44.40515**

1.3 Downstream Longitude: **-72.34319**

Step 2. Stream Type

2.1 Elevation Upstream:

2.1 Elevation Downstream:

2.1 Is Gradient Gentle?: **#Error**

2.2 Valley Length: **0.00** Miles

2.3 Valley Slope: **0.0**

2.4 Channel Length: **18,282.0** ft. **3.46** Miles

2.5 Channel Slope: **0.00 %**

2.6 Sinuosity: **0.00**

2.7 Watershed Area: **2.8** Square Miles

2.8 Channel Width: **20.4** feet

2.9 Valley Width: **feet**

2.10 Confinement Ratio: **0.0**

2.10 Confinement Type:

2.11 Reference Stream Type:

Bedform:

Sub-Class Slope:

Bed Material:

Step 3. Basin Characteristics

3.1 Alluvial Fan:

3.2 Grade Control:

3.3 Dominant Geological Mat.: **Till** **46.4 %**

3.3 Sub-dom. Geological Mat.: **Other**

3.4 Valley Slope Left:

3.4 Valley Slope Right:

3.5 Soils

Hydrologic Group: **D** **65.5 %**

Flooding: **None/Rare** **100.0 %**

Water Table Deep: **0.5** **43.9 %**

Water Table Shallow: **-1.0** **43.9 %**

Erodibility: **Moderate** **46.4 %**

7.4 Comments:

Step 4. Land Cover - Reach Hydrology

4.1 Watershed

Historic Land Cover:

Current Dominant Land Cover: **Forest** **79.6 %**

Current Sub-Dominant Land Cover: **Urban**

4.2 Corridor

Historic Land Cover::

Current Dominant Land Cover: **Forest** **50.0 %**

Current Sub-Dominant Land Cover: **Urban**

4.3 Riparian Buffer **Left Bank** **Right Bank**

Dominant:

Sub-dominant:

Length w / less than 25 ft.: **ft.** **ft.**

4.4 Ground Water Inputs:

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):

Type:

Use:

5.2 Bridges and Culverts: **0** %

5.3 Bank Armoring: **0.0 %**

Left: **ft.** Right: **ft.**

5.4 Channel Straightening: **0.0 %**

5.5 Dredging History:

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **0.0** ft. **0.0**

One Side **Both Sides**

Road: **ft.** **ft.**

Railroad: **ft.** **ft.**

Berm: **ft.** **ft.**

Improved Path: **ft.** **ft.**

6.2 Development: **ft.** **ft.**

6.3 Channel Bars:

6.4 Meander Migration:

6.5 Meander Width: **ft. Ratio: 0.0**

6.6 Wavelength: **ft. Ratio: 0.0**

Step 7. Windshield Survey

7.1 Bank Erosion: **ft**

7.2 Bank Height: **ft**

7.3 Ice/Debris Jam Potential:

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Low	Low	N.D.	N.S.	Unk.	Unk.	Unk.	N.S.	Unk.	Unk.	N.S.	N.S.	N.D.	N.D.	N.S.	N.S.	

Winooski - Cabot

Phase 1 - Reach Summary Report

Basin: **Winooski**
 Stream Name: **unnamed**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Reach ID: **T2.01**
 SGAT Version: **3**
 Date Last Edited: **December, 20 2005**
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **Starts about 500 feet below the Route 215N bridge**

1.1 Reach Description:
 1.2 Towns: **Cabot**
 1.3 Downstream Latitude: **44.40631**
 1.3 Downstream Longitude: **-72.30997**

Step 2. Stream Type

2.1 Elevation Upstream: **1,073**
 2.1 Elevation Downstream: **1,053**
 2.1 Is Gradient Gentle?: **#Error**
 2.2 Valley Length: **659.0 ft.** **0.12** Miles
 2.3 Valley Slope: **3.0**
 2.4 Channel Length: **703.0 ft.** **0.13** Miles
 2.5 Channel Slope: **2.84 %**
 2.6 Sinuosity: **1.07**
 2.7 Watershed Area: **2.6** Square Miles
 2.8 Channel Width: **19.9** feet
 2.9 Valley Width: **feet**
 2.10 Confinement Ratio: **0.0**
 2.10 Confinement Type: **Very Broad**
 2.11 Reference Stream Type: **C**
 Bedform: **Riffle-Pool**
 Sub-Class Slope: **b**
 Bed Material: **Cobble**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**
 3.2 Grade Control: **None**
 3.3 Dominant Geological Mat.: **Alluvial** **70.3 %**
 3.3 Sub-dom. Geological Mat.: **Till**
 3.4 Valley Slope Left: **Flat**
 3.4 Valley Slope Right: **Very Steep**
 3.5 Soils
 Hydrologic Group: **C** **70.3 %**
 Flooding: **Frequent** **70.3 %**
 Water Table Deep: **1.5** **100.0 %**
 Water Table Shallow: **0.0** **100.0 %**
 Erodibility: **Moderate** **29.7 %**
 7.4 Comments:

Step 4. Land Cover - Reach Hydrology

4.1 Watershed
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest** **59.5 %**
 Current Sub-Dominant Land Cover: **Field**
 4.2 Corridor
 Historic Land Cover:: **Residential**
 Current Dominant Land Cover: **Urban** **26.8 %**
 Current Sub-Dominant Land Cover: **Field**
 4.3 Riparian Buffer Left Bank Right Bank
 Dominant: **51-100** **0-25**
 Sub-dominant: **>100** **>100**
 Length w / less than 25 ft.: **351.0 ft.** **703.0 ft.**

4.4 Ground Water Inputs: **None**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):
 Type: **None**
 Use:
 5.2 Bridges and Culverts: **1** **18.9 %**
 5.3 Bank Armoring: **650.0** **92.5 %**
 Left: **ft.** Right: **ft.**
 5.4 Channel Straightening: **703.0** **100.0 %**
 5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **100.0 ft.** **14.2**
One Side Both Sides
 Road: **ft.** **ft.**
 Railroad: **ft.** **ft.**
 Berm: **ft.** **ft.**
 Improved Path: **ft.** **ft.**
 6.2 Development: **0.0 ft.** **211.0 ft.**
 6.3 Channel Bars: **None**
 6.4 Meander Migration: **None**
 6.5 Meander Width: **16 ft.** Ratio: **0.8**
 6.6 Wavelength: **16 ft.** Ratio: **0.8**

Step 7. Windshield Survey

7.1 Bank Erosion: **10.0000000** **ft**
 7.2 Bank Height: **3** **ft**
 7.3 Ice/Debris Jam Potential: **Bridge**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	2	2	0	1	2	2	0	1	2	0	0	2	2	0	1	19
High	High	High	N.S.	Low	High	High	N.S.	Low	High	N.S.	N.S.	High	High	N.S.	Low	

Winooski - Cabot

Phase 1 - Reach Summary Report

Basin: **Winooski**
 Stream Name: **unnamed**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Reach ID: **T2.02**
 SGAT Version: **3**
 Date Last Edited: **December, 20 2005**
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **Reach starts about 150 feet above the Route 215 N bridge**

1.1 Reach Description:
 1.2 Towns: **Cabot**
 1.3 Downstream Latitude: **44.40614**
 1.3 Downstream Longitude: **-72.30741**

Step 2. Stream Type

2.1 Elevation Upstream: **1,398**
 2.1 Elevation Downstream: **1,073**
 2.1 Is Gradient Gentle?: **#Error**
 2.2 Valley Length: **6,084.0 ft.** **1.15 Miles**
 2.3 Valley Slope: **5.3**
 2.4 Channel Length: **6,776.0 ft.** **1.28 Miles**
 2.5 Channel Slope: **4.80 %**
 2.6 Sinuosity: **1.11**
 2.7 Watershed Area: **2.6 Square Miles**
 2.8 Channel Width: **19.8 feet**
 2.9 Valley Width: **110.0 feet**
 2.10 Confinement Ratio: **5.6**
 2.10 Confinement Type: **Narrow**
 2.11 Reference Stream Type: **C**
 Bedform: **Plane Bed**
 Sub-Class Slope: **b**
 Bed Material: **Gravel**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**
 3.2 Grade Control: **Ledge**
 3.3 Dominant Geological Mat.: **Till** **100.0 %**
 3.3 Sub-dom. Geological Mat.:
 3.4 Valley Slope Left: **Very Steep**
 3.4 Valley Slope Right: **Very Steep**
 3.5 Soils
 Hydrologic Group: **D** **95.9 %**
 Flooding: **None/Rare** **100.0 %**
 Water Table Deep: **1.5** **95.9 %**
 Water Table Shallow: **0.0** **95.9 %**
 Erodibility: **Very Severe** **100.0 %**

7.4 Comments:
Debris jam potential: culvert and debris

Step 4. Land Cover - Reach Hydrology

4.1 Watershed
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest** **60.0 %**
 Current Sub-Dominant Land Cover: **Field**
 4.2 Corridor
 Historic Land Cover:: **Forest**
 Current Dominant Land Cover: **Forest** **49.7 %**
 Current Sub-Dominant Land Cover: **Urban**
 4.3 Riparian Buffer Left Bank Right Bank
 Dominant: **51-100** **51-100**
 Sub-dominant: **>100** **>100**
 Length w / less than 25 ft.: **338.0 ft.** **677.0 ft.**

4.4 Ground Water Inputs: **Minimal**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):
 Type: **None**
 Use:
 5.2 Bridges and Culverts: **1** %
 5.3 Bank Armoring: **704.0** **10.4 %**
 Left: ft. Right: ft.
 5.4 Channel Straightening: **0.0 %**
 5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **400.0 ft.** **5.9**
 One Side Both Sides
 Road: ft. ft.
 Railroad: ft. ft.
 Berm: ft. ft.
 Improved Path: ft. ft.
 6.2 Development: **339.0 ft.** **0.0 ft.**
 6.3 Channel Bars: **Multiple**
 6.4 Meander Migration: **Avulsion**
 6.5 Meander Width: ft. Ratio: **0.0**
 6.6 Wavelength: ft. Ratio: **0.0**

Step 7. Windshield Survey

7.1 Bank Erosion: **3123.5000000** ft
 7.2 Bank Height: **2** ft
 7.3 Ice/Debris Jam Potential: **Multiple**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	1	1	0	0	1	0	0	1	1	2	2	0	0	2	1	14
High	Low	Low	N.S.	Unk.	Low	N.S.	N.S.	Low	Low	High	High	N.D.	N.D.	High	Low	

Winooski - Cabot

Phase 1 - Reach Summary Report

Basin: **Winooski**
 Stream Name: **unnamed**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Reach ID: **T2.03**
 SGAT Version: **3**
 Date Last Edited:
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **Reach starts about 750 feet above Menard Road crossing**

1.1 Reach Description:
 1.2 Towns: **Cabot**
 1.3 Downstream Latitude: **44.41211**
 1.3 Downstream Longitude: **-72.28632**

Step 2. Stream Type

2.1 Elevation Upstream: **2,037**
 2.1 Elevation Downstream: **1,398**
 2.1 Is Gradient Gentle?: **#Error**
 2.2 Valley Length: **6,094.0 ft.** **1.15 Miles**
 2.3 Valley Slope: **10.5**
 2.4 Channel Length: **6,307.0 ft.** **1.19 Miles**
 2.5 Channel Slope: **10.13 %**
 2.6 Sinuosity: **1.03**
 2.7 Watershed Area: **1.2 Square Miles**
 2.8 Channel Width: **14.1 feet**
 2.9 Valley Width: **feet**
 2.10 Confinement Ratio: **0.0**
 2.10 Confinement Type: **Narrowly Confined**
 2.11 Reference Stream Type: **A**
 Bedform: **Cascade**
 Sub-Class Slope: **a**
 Bed Material: **No Data**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**
 3.2 Grade Control: **No Data**
 3.3 Dominant Geological Mat.: **Till** **100.0 %**
 3.3 Sub-dom. Geological Mat.:
 3.4 Valley Slope Left: **Steep**
 3.4 Valley Slope Right: **Steep**
 3.5 Soils
 Hydrologic Group: **D** **82.8 %**
 Flooding: **None/Rare** **100.0 %**
 Water Table Deep: **1.5** **81.6 %**
 Water Table Shallow: **0.0** **81.6 %**
 Erodibility: **Very Severe** **100.0 %**
 7.4 Comments:

Step 4. Land Cover - Reach Hydrology

4.1 Watershed
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest** **75.8 %**
 Current Sub-Dominant Land Cover: **Crop**
 4.2 Corridor
 Historic Land Cover:: **Forest**
 Current Dominant Land Cover: **Forest** **55.7 %**
 Current Sub-Dominant Land Cover: **Crop**
 4.3 Riparian Buffer Left Bank Right Bank
 Dominant: **>100** **>100**
 Sub-dominant: **51-100** **51-100**
 Length w / less than 25 ft.: **0.0 ft.** **0.0 ft.**

4.4 Ground Water Inputs: **Minimal**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):
 Type: **None**
 Use:
 5.2 Bridges and Culverts: **2** %
 5.3 Bank Armoring: **0.0 %**
 Left: ft. Right: ft.
 5.4 Channel Straightening: **0.0 %**
 5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **0.0 ft.** **0.0**
 One Side Both Sides
 Road: ft. ft.
 Railroad: ft. ft.
 Berm: ft. ft.
 Improved Path: ft. ft.
 6.2 Development: **0.0 ft.** **0.0 ft.**
 6.3 Channel Bars:
 6.4 Meander Migration: **None**
 6.5 Meander Width: **ft. Ratio: 0.0**
 6.6 Wavelength: **ft. Ratio: 0.0**

Step 7. Windshield Survey

7.1 Bank Erosion: **ft**
 7.2 Bank Height: **No Data** **ft**
 7.3 Ice/Debris Jam Potential: **No Data**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
High	Low	N.S.	N.S.	Unk.	N.D.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.D.	N.D.	N.S.	N.S.	

Winooski - Cabot

Phase 1 - Reach Summary Report

Basin: **Winooski**
 Stream Name: **unnamed**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Reach ID: **T3.01**
 SGAT Version: **3**
 Date Last Edited: **December, 20 2013**
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **On Tributary 3 in section near Houston Hill Road**

1.1 Reach Description:
 1.2 Towns: **Cabot**
 1.3 Downstream Latitude: **44.41822**
 1.3 Downstream Longitude: **-72.31549**

Step 2. Stream Type

2.1 Elevation Upstream: **1,152**
 2.1 Elevation Downstream: **1,115**
 2.1 Is Gradient Gentle?: **#Error**
 2.2 Valley Length: **2,638.0 ft.** **0.50** Miles
 2.3 Valley Slope: **1.4**
 2.4 Channel Length: **2,819.0 ft.** **0.53** Miles
 2.5 Channel Slope: **1.31 %**
 2.6 Sinuosity: **1.07**
 2.7 Watershed Area: **4.3** Square Miles
 2.8 Channel Width: **14.0** feet
 2.9 Valley Width: **500.0** feet
 2.10 Confinement Ratio: **35.7**
 2.10 Confinement Type: **Very Broad**
 2.11 Reference Stream Type: **E**
 Bedform: **Riffle-Pool**
 Sub-Class Slope: **None**
 Bed Material: **Gravel**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**
 3.2 Grade Control: **None**
 3.3 Dominant Geological Mat.: **Till** **100.0 %**
 3.3 Sub-dom. Geological Mat.:
 3.4 Valley Slope Left: **Very Steep**
 3.4 Valley Slope Right: **Steep**
 3.5 Soils
 Hydrologic Group: **C** **100.0 %**
 Flooding: **None/Rare** **100.0 %**
 Water Table Deep: **6.0** **100.0 %**
 Water Table Shallow: **6.0** **100.0 %**
 Erodibility: **Very Severe** **100.0 %**

7.4 Comments:
Step 2 reference channel width updated from 24.8 to 14.0 based on Phase 2 data. Because this is an E stream type, the narrower field-measured width is likely a closer approximation of the reference channel width.

Step 4. Land Cover - Reach Hydrology

4.1 Watershed
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest** **63.3 %**
 Current Sub-Dominant Land Cover: **Crop**
 4.2 Corridor
 Historic Land Cover:: **Field**
 Current Dominant Land Cover: **Urban** **13.8 %**
 Current Sub-Dominant Land Cover: **Forest**
 4.3 Riparian Buffer Left Bank Right Bank
 Dominant: **0-25** **0-25**
 Sub-dominant: **>100** **>100**
 Length w / less than 25 ft.: **1,691.0 ft.** **2,819.0 ft.**

4.4 Ground Water Inputs: **None**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):
 Type: **None**
 Use:
 5.2 Bridges and Culverts: **4** **19.0 %**
 5.3 Bank Armoring: **1,490.0** **52.9 %**
 Left: ft. Right: ft.
 5.4 Channel Straightening: **1,275.0** **45.2 %**
 5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **383.0 ft.** **13.6**
 One Side Both Sides
 Road: ft. ft.
 Railroad: ft. ft.
 Berm: ft. ft.
 Improved Path: ft. ft.
 6.2 Development: **141.0 ft.** **0.0 ft.**
 6.3 Channel Bars: **None**
 6.4 Meander Migration: **No Data**
 6.5 Meander Width: **21 ft.** Ratio: **1.5**
 6.6 Wavelength: **21 ft.** Ratio: **1.5**

Step 7. Windshield Survey

7.1 Bank Erosion: **762.5000000** ft
 7.2 Bank Height: **3** ft
 7.3 Ice/Debris Jam Potential: **None**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	2	2	0	1	2	2	0	1	1	0	0	2	2	2	0	19
High	High	High	N.S.	Low	High	High	N.S.	Low	Low	N.S.	N.S.	High	High	High	N.S.	

Winooski - Cabot

Phase 1 - Reach Summary Report

Basin: **Winooski**
 Stream Name: **unnamed**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Reach ID: **T3.02**
 SGAT Version: **3**
 Date Last Edited: **December, 20 2005**
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **Reach Starts about 1100 feet above S. Walden Road culvert**

1.1 Reach Description:

1.2 Towns: **Cabot**

1.3 Downstream Latitude: **44.42257**

1.3 Downstream Longitude: **-72.30854**

Step 2. Stream Type

2.1 Elevation Upstream: **1,211**

2.1 Elevation Downstream: **1,152**

2.1 Is Gradient Gentle?: **#Error**

2.2 Valley Length: **2,151.0 ft.** **0.41** Miles

2.3 Valley Slope: **2.7**

2.4 Channel Length: **2,288.0 ft.** **0.43** Miles

2.5 Channel Slope: **2.58 %**

2.6 Sinuosity: **1.06**

2.7 Watershed Area: **4.1** Square Miles

2.8 Channel Width: **24.4** feet

2.9 Valley Width: **160.0** feet

2.10 Confinement Ratio: **6.6**

2.10 Confinement Type: **Broad**

2.11 Reference Stream Type: **B**

 Bedform: **Step-Pool**

 Sub-Class Slope: **None**

 Bed Material: **Gravel**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**

3.2 Grade Control: **Ledge**

3.3 Dominant Geological Mat.: **Till** **100.0 %**

3.3 Sub-dom. Geological Mat.:

3.4 Valley Slope Left: **Steep**

3.4 Valley Slope Right: **Steep**

3.5 Soils

 Hydrologic Group: **C** **74.0 %**

 Flooding: **None/Rare** **100.0 %**

 Water Table Deep: **6.0** **74.0 %**

 Water Table Shallow: **6.0** **74.0 %**

 Erodibility: **Very Severe** **100.0 %**

7.4 Comments:

3 grade control structures (ledge) noted; high left bank

Step 4. Land Cover - Reach Hydrology

4.1 Watershed

 Historic Land Cover: **Forest**

 Current Dominant Land Cover: **Forest** **64.0 %**

 Current Sub-Dominant Land Cover: **Crop**

4.2 Corridor

 Historic Land Cover:: **Forest**

 Current Dominant Land Cover: **Urban** **40.8 %**

 Current Sub-Dominant Land Cover: **Forest**

4.3 Riparian Buffer Left Bank Right Bank

 Dominant: **>100** **26-50**

 Sub-dominant: **51-100** **0-25**

 Length w / less than 25 ft.: **0.0 ft.** **228.0 ft.**

4.4 Ground Water Inputs: **Minimal**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):

 Type: **None**

 Use:

5.2 Bridges and Culverts: **1** %

5.3 Bank Armoring: **692.0** **30.2 %**

 Left: ft. Right: ft.

5.4 Channel Straightening: **500.0** **21.9 %**

5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **1,775.0 ft.** **77.6**

One Side Both Sides

 Road: ft. ft.

 Railroad: ft. ft.

 Berm: ft. ft.

 Improved Path: ft. ft.

6.2 Development: **114.0 ft.** **0.0 ft.**

6.3 Channel Bars: **Point**

6.4 Meander Migration: **None**

6.5 Meander Width: ft. Ratio: **0.0**

6.6 Wavelength: ft. Ratio: **0.0**

Step 7. Windshield Survey

7.1 Bank Erosion: **597.0000000** ft

7.2 Bank Height: **10** ft

7.3 Ice/Debris Jam Potential: **None**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	2	1	0	0	2	2	0	2	0	1	0	0	0	2	0	14
High	High	Low	N.S.	Unk.	High	High	N.S.	High	N.S.	Low	N.S.	N.D.	N.D.	High	N.S.	

Winooski - Cabot

Phase 1 - Reach Summary Report

Basin: **Winooski**
 Stream Name: **unnamed**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Reach ID: **T3.03**
 SGAT Version: **3**
 Date Last Edited: **December, 20 2013**
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **Reach starts at confluence of fork to the east, along South Walden Road**

1.1 Reach Description:

1.2 Towns: **Cabot**

1.3 Downstream Latitude: **44.42720**

1.3 Downstream Longitude: **-72.30354**

Step 2. Stream Type

2.1 Elevation Upstream: **1,237**

2.1 Elevation Downstream: **1,211**

2.1 Is Gradient Gentle?: **#Error**

2.2 Valley Length: **1,400.0 ft.** **0.27** Miles

2.3 Valley Slope: **1.9**

2.4 Channel Length: **1,553.0 ft.** **0.29** Miles

2.5 Channel Slope: **1.67 %**

2.6 Sinuosity: **1.11**

2.7 Watershed Area: **2.5** Square Miles

2.8 Channel Width: **13.0** feet

2.9 Valley Width: **190.0** feet

2.10 Confinement Ratio: **14.6**

2.10 Confinement Type: **Very Broad**

2.11 Reference Stream Type: **E**

 Bedform: **Riffle-Pool**

 Sub-Class Slope: **None**

 Bed Material: **Gravel**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**

3.2 Grade Control: **None**

3.3 Dominant Geological Mat.: **Alluvial** **69.7 %**

3.3 Sub-dom. Geological Mat.: **Till**

3.4 Valley Slope Left: **Hilly**

3.4 Valley Slope Right: **Hilly**

3.5 Soils

 Hydrologic Group: **C** **76.9 %**

 Flooding: **Frequent** **69.7 %**

 Water Table Deep: **1.5** **82.1 %**

 Water Table Shallow: **0.0** **82.1 %**

 Erodibility: **Moderate** **30.3 %**

7.4 Comments:

Step 2 reference channel width updated from 16.7 to 13.0 based on Phase 2 data. Because this is an E stream type, the narrower field-measured width is likely a closer approximation of the reference channel width.

Step 4. Land Cover - Reach Hydrology

4.1 Watershed

 Historic Land Cover: **Forest**

 Current Dominant Land Cover: **Forest** **63.0 %**

 Current Sub-Dominant Land Cover: **Crop**

4.2 Corridor

 Historic Land Cover:: **Forest**

 Current Dominant Land Cover: **Forest** **29.2 %**

 Current Sub-Dominant Land Cover: **Urban**

4.3 Riparian Buffer Left Bank Right Bank

 Dominant: **0-25** **26-50**

 Sub-dominant: **>100** **>100**

 Length w / less than 25 ft.: **776.0 ft.** **776.0 ft.**

4.4 Ground Water Inputs: **Abundant**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):

 Type: **None**

 Use:

5.2 Bridges and Culverts: **1** %

5.3 Bank Armoring: **761.0** **49.0 %**

 Left: ft. Right: ft.

5.4 Channel Straightening: **770.0** **49.6 %**

5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **776.0 ft.** **50.0**

One Side Both Sides

 Road: ft. ft.

 Railroad: ft. ft.

 Berm: ft. ft.

 Improved Path: ft. ft.

6.2 Development: **78.0 ft.** **0.0 ft.**

6.3 Channel Bars: **None**

6.4 Meander Migration: **Avulsion**

6.5 Meander Width: **100 ft.** Ratio: **7.7**

6.6 Wavelength: **173 ft.** Ratio: **13.3**

Step 7. Windshield Survey

7.1 Bank Erosion: **537.5000000** ft

7.2 Bank Height: **3** ft

7.3 Ice/Debris Jam Potential: **None**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	2	2	0	0	2	2	0	2	1	0	1	0	0	2	0	16
High	High	High	N.S.	Unk.	High	High	N.S.	High	Low	N.S.	Low	N.S.	N.S.	High	N.S.	

Winooski - Cabot

Phase 1 - Reach Summary Report

Basin: **Winooski**
 Stream Name: **unnamed**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Reach ID: **T3.04**
 SGAT Version: **3**
 Date Last Edited: **December, 20 2005**
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 1. Reach Location **Reach starts below fork of S. Walden Road and Walbridge Road**

1.1 Reach Description:
 1.2 Towns: **Cabot**
 1.3 Downstream Latitude: **44.43063**
 1.3 Downstream Longitude: **-72.30188**

Step 2. Stream Type

2.1 Elevation Upstream: **1,400**
 2.1 Elevation Downstream: **1,237**
 2.1 Is Gradient Gentle?: **#Error**
 2.2 Valley Length: **4,090.0 ft.** **0.77** Miles
 2.3 Valley Slope: **4.0**
 2.4 Channel Length: **4,521.0 ft.** **0.86** Miles
 2.5 Channel Slope: **3.61 %**
 2.6 Sinuosity: **1.11**
 2.7 Watershed Area: **1.7** Square Miles
 2.8 Channel Width: **16.7** feet
 2.9 Valley Width: **40.0** feet
 2.10 Confinement Ratio: **2.4**
 2.10 Confinement Type: **Semi-confined**
 2.11 Reference Stream Type: **B**
 Bedform: **Step-Pool**
 Sub-Class Slope: **None**
 Bed Material: **Gravel**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**
 3.2 Grade Control: **None**
 3.3 Dominant Geological Mat.: **Till** **71.7 %**
 3.3 Sub-dom. Geological Mat.: **Alluvial**
 3.4 Valley Slope Left: **Very Steep**
 3.4 Valley Slope Right: **Steep**
 3.5 Soils
 Hydrologic Group: **C** **57.0 %**
 Flooding: **None/Rare** **71.7 %**
 Water Table Deep: **1.5** **68.6 %**
 Water Table Shallow: **0.0** **68.6 %**
 Erodibility: **Severe** **71.7 %**
 7.4 Comments:

Step 4. Land Cover - Reach Hydrology

4.1 Watershed
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest** **59.2 %**
 Current Sub-Dominant Land Cover: **Crop**
 4.2 Corridor
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest** **28.0 %**
 Current Sub-Dominant Land Cover: **Urban**
 4.3 Riparian Buffer Left Bank Right Bank
 Dominant: **51-100** **>100**
 Sub-dominant: **26-50** **26-50**
 Length w / less than 25 ft.: **226.0 ft.** **904.0 ft.**

4.4 Ground Water Inputs: **Abundant**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):
 Type: **None**
 Use:
 5.2 Bridges and Culverts: **3** %
 5.3 Bank Armoring: **993.0** **22.0 %**
 Left: ft. Right: ft.
 5.4 Channel Straightening: **735.0** **16.3 %**
 5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **1,057.0 ft.** **23.4**
 One Side Both Sides
 Road: ft. ft.
 Railroad: ft. ft.
 Berm: ft. ft.
 Improved Path: ft. ft.
 6.2 Development: **0.0 ft.** **226.0 ft.**
 6.3 Channel Bars: **Point**
 6.4 Meander Migration: **No Data**
 6.5 Meander Width: **48 ft.** Ratio: **2.9**
 6.6 Wavelength: **142 ft.** Ratio: **8.5**

Step 7. Windshield Survey

7.1 Bank Erosion: **1011.0000000** ft
 7.2 Bank Height: **2** ft
 7.3 Ice/Debris Jam Potential: **None**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	2	2	0	0	2	1	0	2	0	1	0	2	0	2	0	16
High	High	High	N.S.	Unk.	High	Low	N.S.	High	N.S.	Low	N.S.	High	N.S.	High	N.S.	

Winooski - Cabot

Basin: **Winooski**
 Stream Name: **unnamed**
 Topo Maps: **Cabot, Vermont**
 Watershed: **Winooski River**
 Sub-watershed: **Winooski River -- headwaters to North Branch**

Step 1. Reach Location **Headwaters of Tributary 3**

1.1 Reach Description:
 1.2 Towns: **Cabot, Walden**
 1.3 Downstream Latitude: **44.43977**
 1.3 Downstream Longitude: **-72.29465**
Step 2. Stream Type
 2.1 Elevation Upstream: **1,732**
 2.1 Elevation Downstream: **1,400**
 2.1 Is Gradient Gentle?: **#Error**
 2.2 Valley Length: **7,824.0 ft.** **1.48** Miles
 2.3 Valley Slope: **4.2**
 2.4 Channel Length: **8,508.0 ft.** **1.61** Miles
 2.5 Channel Slope: **3.90 %**
 2.6 Sinuosity: **1.09**
 2.7 Watershed Area: **0.7** Square Miles
 2.8 Channel Width: **11.2** feet
 2.9 Valley Width: feet
 2.10 Confinement Ratio: **0.0**
 2.10 Confinement Type: **Semi-confined**
 2.11 Reference Stream Type: **B**
 Bedform: **Step-Pool**
 Sub-Class Slope: **None**
 Bed Material: **No Data**

Step 3. Basin Characteristics

3.1 Alluvial Fan: **None**
 3.2 Grade Control: **No Data**
 3.3 Dominant Geological Mat.: %
 3.3 Sub-dom. Geological Mat.:
 3.4 Valley Slope Left: **Steep**
 3.4 Valley Slope Right: **Steep**
 3.5 Soils
 Hydrologic Group: %
 Flooding: %
 Water Table Deep: %
 Water Table Shallow: %
 Erodibility: **slight** %
 7.4 Comments:

Phase 1 - Reach Summary Report

Reach ID: **T3.05**
 SGAT Version: **3**
 Date Last Edited:
 QA Status: **Step 7 done**
 Is Reach An Impoundment?: **#Error**

Step 4. Land Cover - Reach Hydrology

4.1 Watershed
 Historic Land Cover: **Forest**
 Current Dominant Land Cover: **Forest** **56.1 %**
 Current Sub-Dominant Land Cover: **Crop**
 4.2 Corridor
 Historic Land Cover:: **Forest**
 Current Dominant Land Cover: **Forest** **43.9 %**
 Current Sub-Dominant Land Cover: **Crop**
 4.3 Riparian Buffer Left Bank Right Bank
 Dominant: **>100** **>100**
 Sub-dominant: **0-25** **0-25**
 Length w / less than 25 ft.: **425.0 ft.** **425.0 ft.**

4.4 Ground Water Inputs: **Abundant**

Step 5. Instream Channel Modifications

5.1 Flow Regulation - (old):
 Type: **None**
 Use:
 5.2 Bridges and Culverts: **0** %
 5.3 Bank Armoring: **0.0 %**
 Left: ft. Right: ft.
 5.4 Channel Straightening: **0.0 %**
 5.5 Dredging History: **No Data**

Step 6. Floodplain Modifications

6.1 Berms & Roads - old: **0.0 ft.** **0.0**
 One Side Both Sides
 Road: ft. ft.
 Railroad: ft. ft.
 Berm: ft. ft.
 Improved Path: ft. ft.
 6.2 Development: **0.0 ft.** **0.0 ft.**
 6.3 Channel Bars:
 6.4 Meander Migration: **None**
 6.5 Meander Width: **ft. Ratio: 0.0**
 6.6 Wavelength: **ft. Ratio: 0.0**

Step 7. Windshield Survey

7.1 Bank Erosion: ft
 7.2 Bank Height: **No Data** ft
 7.3 Ice/Debris Jam Potential: **No Data**

4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	7.1	7.3	Total
2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
High	Low	Low	N.S.	Unk.	N.D.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.D.	N.D.	N.S.	N.S.	