S-A18-186

Created	2018-07-24 12:20:59 UTC by Laura Giese
Updated	2018-09-06 14:06:17 UTC by Joseph Roy
Location	36.8232403, -79.3525951
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/24
Date2	180724

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
Resource Series Number	186
Resource ID	S-A18-186
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	17.75
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SE
Channel condition	Marginal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	1
Bankfull Width (ft)	1
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.2
High poor (0.6) [Left]	0.5
Low poor (0.5) [Left]	0
Left bank total	0.7

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.4
High poor (0.6) [Right]	0.3
Low poor (0.5) [Right]	0
Right bank total	0.7

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	6.5

Stream Hydrology

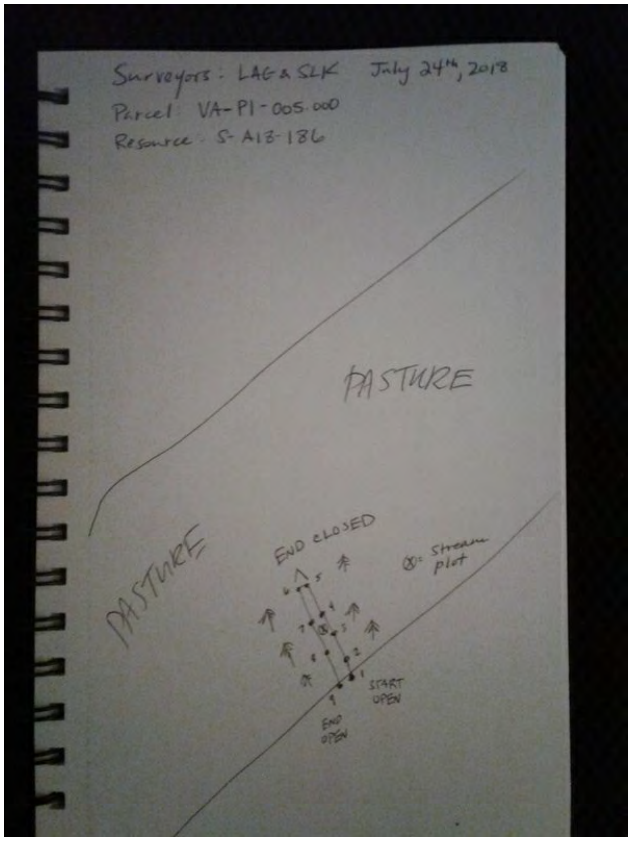
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	6.75
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-188

Created	2018-07-25 13:36:22 UTC by Laura Giese
Updated	2018-09-06 14:14:09 UTC by Joseph Roy
Location	36.6618691, -79.5112719
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/25
Date2	180725

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
Resource Series Number	188
Resource ID	S-A18-188
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	33.75
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S
Channel condition	Marginal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Cobble-Gravel, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0.4
Low poor (0.5) [Left]	0
Left bank total	0.9

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Sand, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Moderate
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	16.5

Stream Hydrology

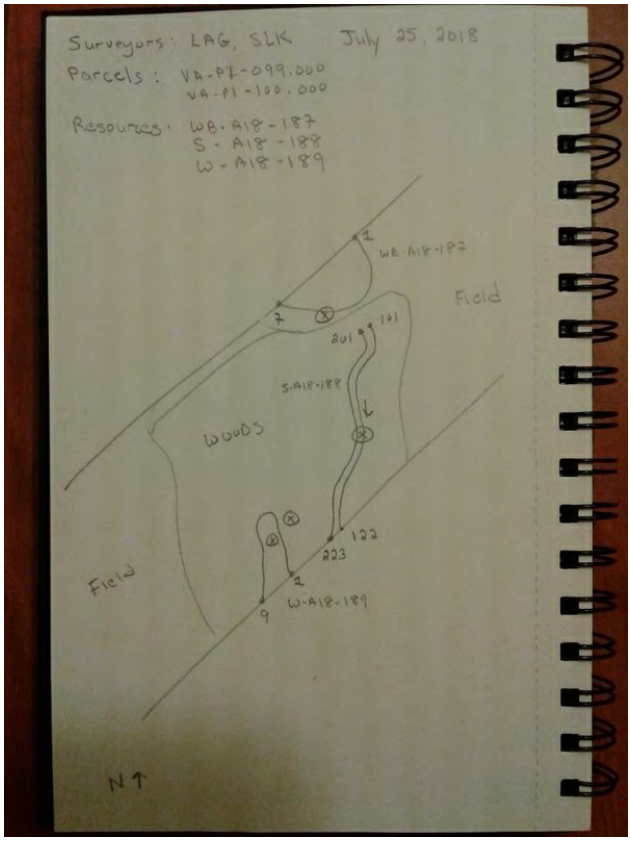
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Moderate
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	9.75
Notes	Dammed upslope to create pond
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-190A

Created	2018-07-26 12:10:57 UTC by Laura Giese
Updated	2018-09-06 14:28:00 UTC by Joseph Roy
Location	36.6545178, -79.5173958
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/26
Date2	180726

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
Resource Series Number	190
Resource ID	S-A18-190A
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-190A
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	23.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NW
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	1.1
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.1

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0.3
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.5
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.8

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0.2
Low marginal (0.75) [Right]	0.5
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.7

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	8.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

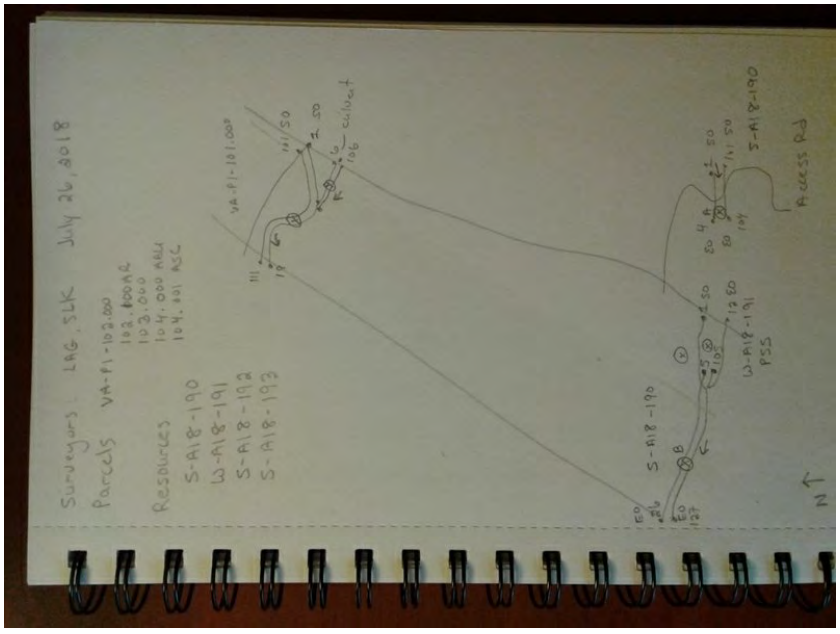
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	7.5
Notes	Pond upslope, culverted under dirt road
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	S

Additional Stream Photos

Headcut by flag 9 and 108

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-190B

Created	2018-07-26 14:17:11 UTC by Laura Giese
Updated	2018-09-13 15:53:47 UTC by Phil Jacques
Location	36.6553104, -79.5188945
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/26
Date2	180726

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
Resource Series Number	190
Resource ID	S-A18-190B
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-190B
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	34
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NW
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	1.2
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.2

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	18.5

Stream Hydrology

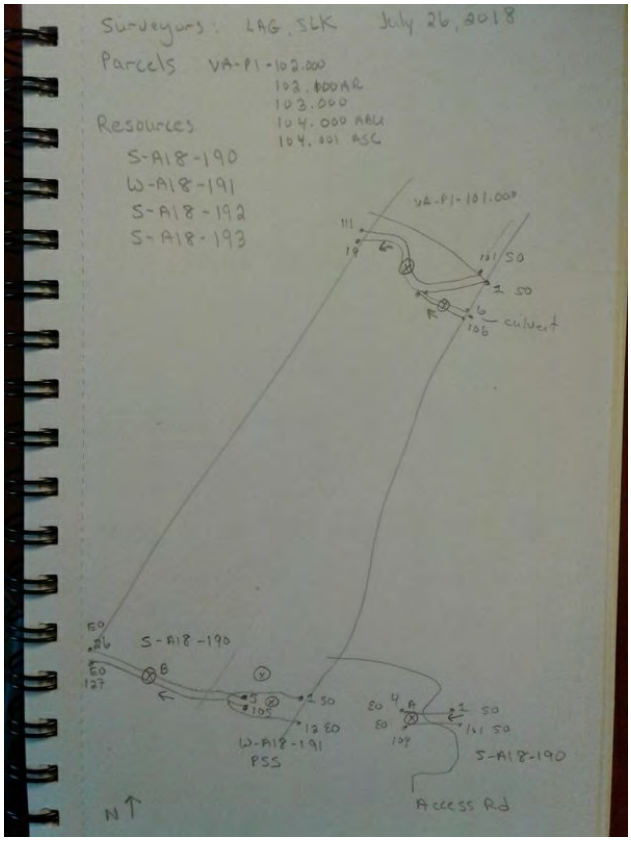
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Absent
Algae	Absent
Stream Biology Total	7.5
Notes	Trash in upper parts
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-192

Created	2018-07-26 15:50:14 UTC by Laura Giese
Updated	2018-09-06 14:16:36 UTC by Joseph Roy
Location	36.6574209, -79.5169315
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/26
Date2	180726

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
Resource Series Number	192
Resource ID	S-A18-192
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	25
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	W
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	1.1
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.1

Stream Measurements

Left Bank

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0

Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	10

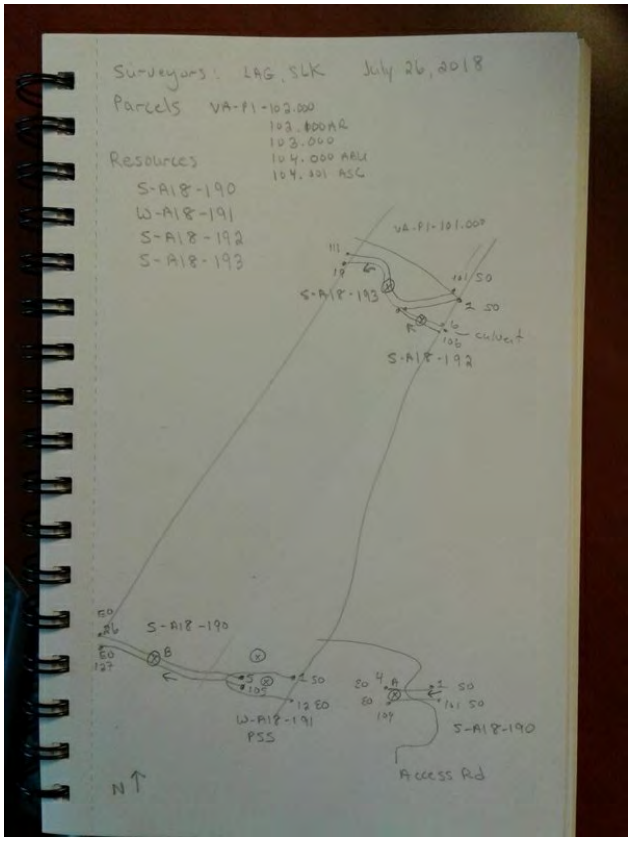
Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent

Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	7
Notes	Upper reach has been straightened
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E
Downstream Stream Photo	
Downstream photo direction	W

Across Stream Photo 1	
Across stream photo direction 1	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-193

Created	2018-07-26 16:28:27 UTC by Laura Giese
Updated	2018-09-06 14:17:08 UTC by Joseph Roy
Location	36.6573811, -79.5174392
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/26
Date2	180726

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
Resource Series Number	193
Resource ID	S-A18-193
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	40
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	NW
Channel condition	Suboptimal
In stream habitat	Optimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	13
Average Water Width (ft)	3
Bank to Bank (ft)	13
Bankfull Width (ft)	13
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Strong
Particle size of stream substrate	Strong
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	20.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

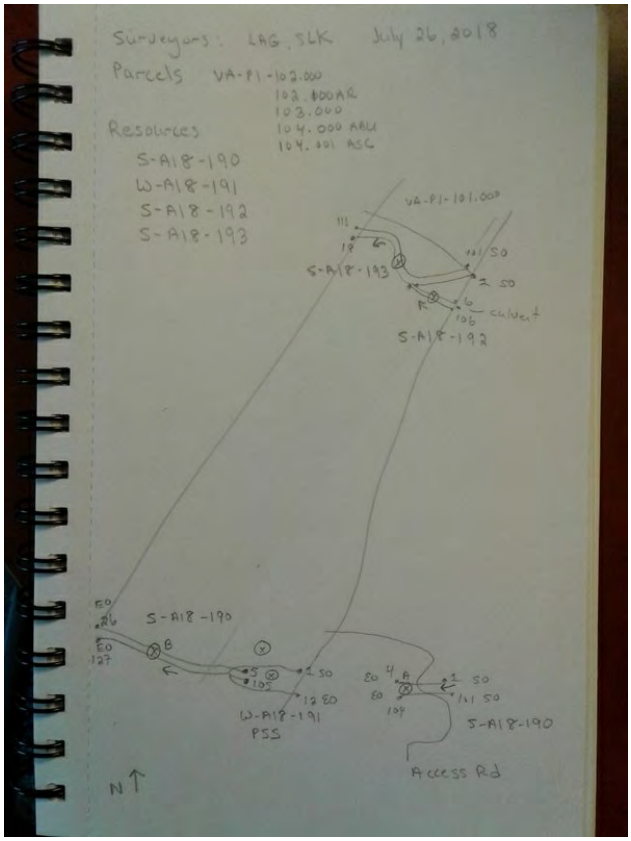
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Weak
Crayfish	Moderate
Amphibians	Moderate
Algae	Absent
Stream Biology Total	11.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	SW

Additional Stream Photos

in existing ROW, facing downstream

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-194

Created	2018-07-26 17:38:07 UTC by Laura Giese
Updated	2018-09-06 14:35:38 UTC by Joseph Roy
Location	36.6536265, -79.5198733
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/26
Date2	180726

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
Resource Series Number	194
Resource ID	S-A18-194
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	31.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NW
Channel condition	Marginal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	3
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	16

Stream Hydrology

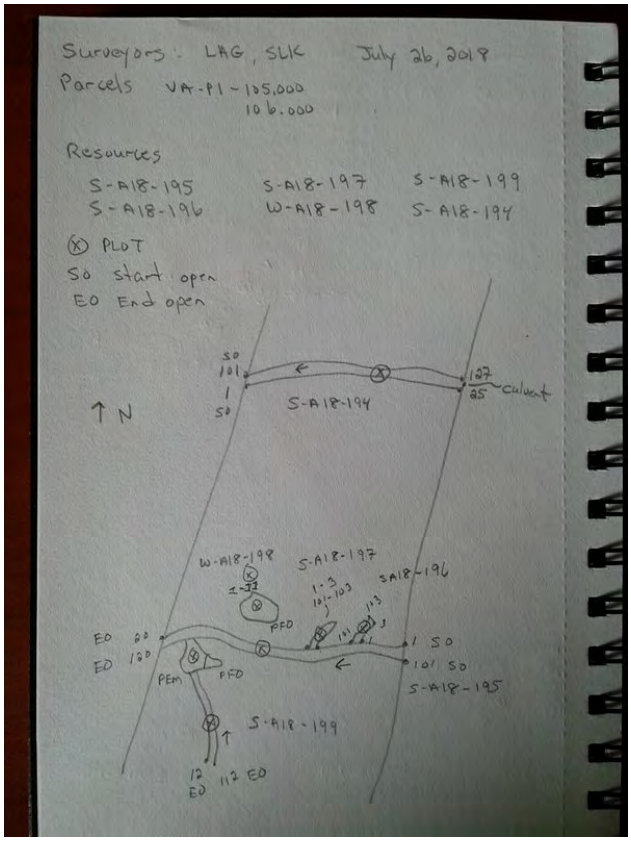
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Stream Biology Total	8
Notes	Pond upslope: Sandy substrate in southern reach
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	NE

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-195

Created	2018-07-26 18:54:02 UTC by Laura Giese
Updated	2018-09-06 15:01:23 UTC by Joseph Roy
Location	36.6517325, -79.5214818
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/26
Date2	180726

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
Resource Series Number	195
Resource ID	S-A18-195
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	37.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	NW
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Sand, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Strong
Particle size of stream substrate	Strong
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	21.5

Stream Hydrology

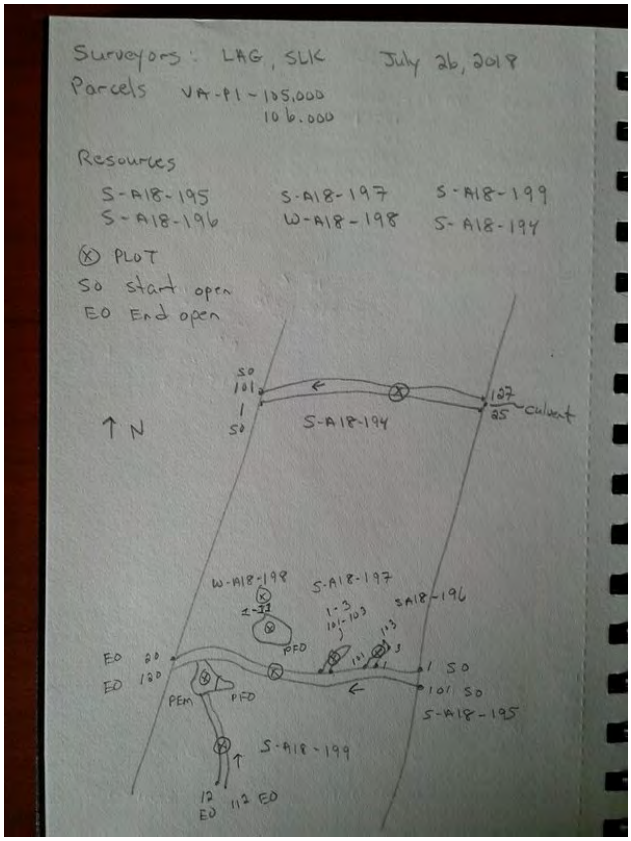
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Stream Biology Total	8
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-196

Created	2018-07-26 18:20:58 UTC by Laura Giese
Updated	2018-09-06 14:39:48 UTC by Joseph Roy
Location	36.6517339, -79.5212734
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/26
Date2	180726

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
Resource Series Number	196
Resource ID	S-A18-196
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	21
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W
Channel condition	Optimal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	6

Stream Hydrology

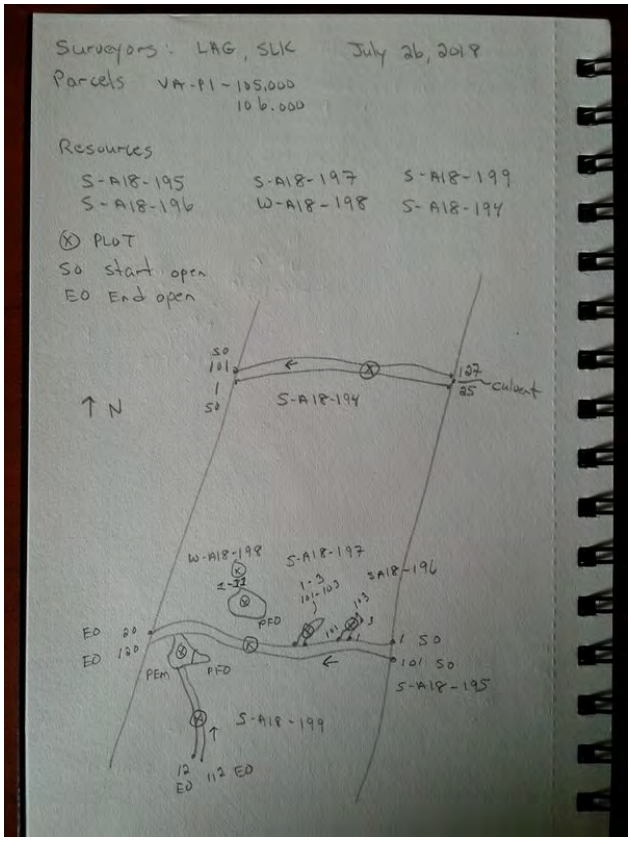
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	7
Notes	Seepage out of hillside
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-197

Created	2018-07-26 18:45:30 UTC by Laura Giese
Updated	2018-09-06 14:58:08 UTC by Joseph Roy
Location	36.6519039, -79.5214832
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/26
Date2	180726

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
Resource Series Number	197
Resource ID	S-A18-197
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	21.25
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NW
Channel condition	Optimal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	6.5

Stream Hydrology

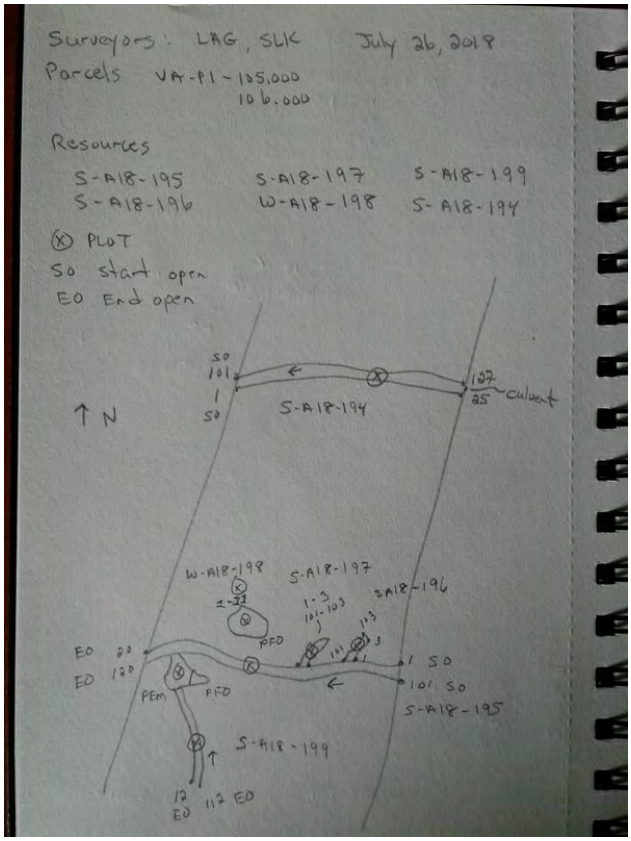
Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	7.75
Notes	Seepage out of hillside
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-199

Created	2018-07-26 20:22:44 UTC by Laura Giese
Updated	2018-09-06 15:02:43 UTC by Joseph Roy
Location	36.6515719, -79.5221889
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/26
Date2	180726

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
Resource Series Number	199
Resource ID	S-A18-199
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	31
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	N
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	15

Stream Hydrology

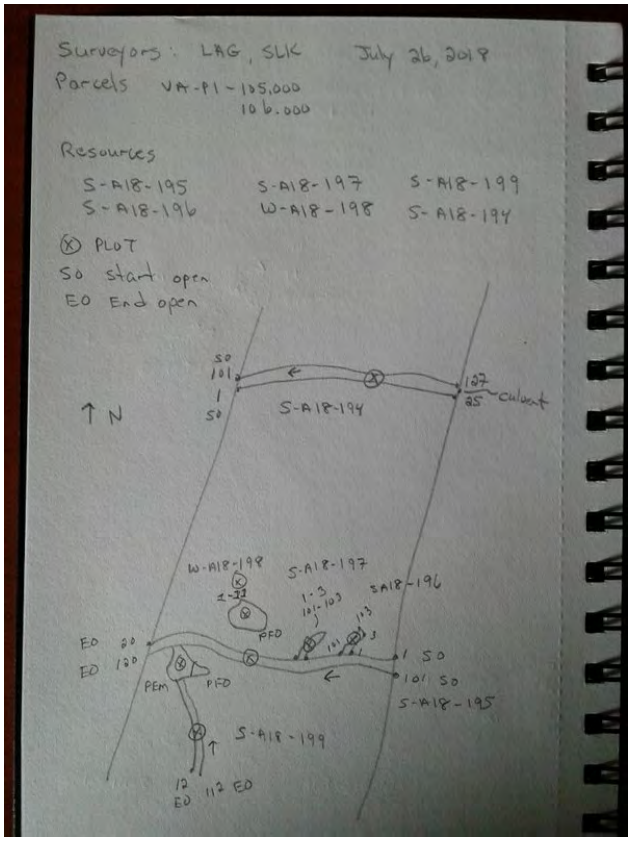
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Stream Biology Total	8
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	SW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-203

Created	2018-07-31 13:23:15 UTC by Laura Giese
Updated	2018-09-06 15:28:28 UTC by Joseph Roy
Location	36.5865443, -79.5861588
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/31
Date2	180731

Resource Crew Info

Field Crew	Laura Giese, Susan Thebert
Lead Scientist's Initials	A18
Resource Series Number	203
Resource ID	S-A18-203
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	26.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NW
Channel condition	Optimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.75
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.35
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	13

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	7
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

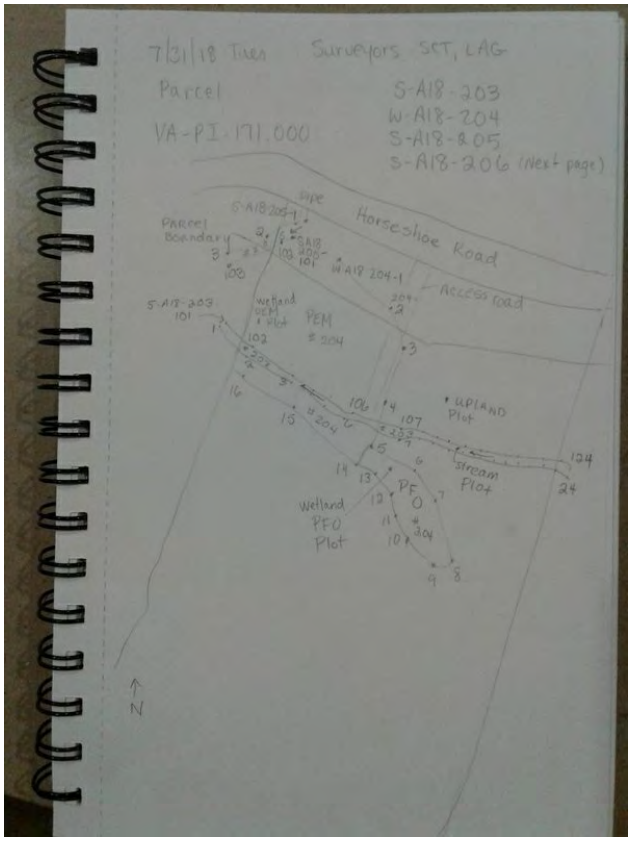
Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	N

Additional Stream Photos

Upper end, UP

mid reach DN

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-205

Created	2018-07-31 12:12:49 UTC by Laura Giese
Updated	2018-08-10 19:47:31 UTC by Laura Giese
Location	36.5871083, -79.5870889
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/31
Date2	180731

Resource Crew Info

Field Crew	Laura Giese, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	205
Resource ID	S-A18-205
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	28.25
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	W
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0.9
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0.9

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0.75
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.4
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.15

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.3
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.3

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	Yes
Stream Geomorphology Total	9.5

Stream Hydrology

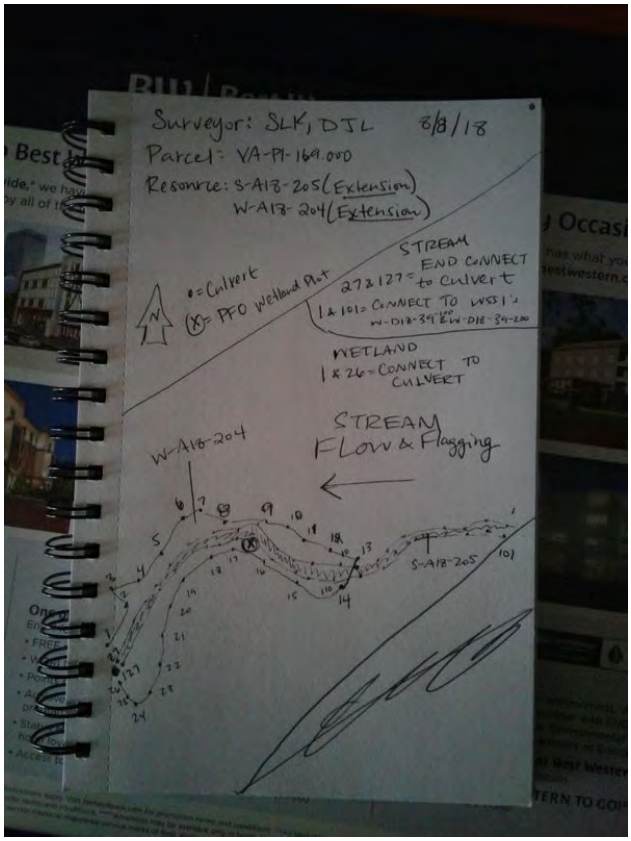
Presence of baseflow	Strong
Iron oxidizing bacteria	Strong
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10.5

Stream Biology

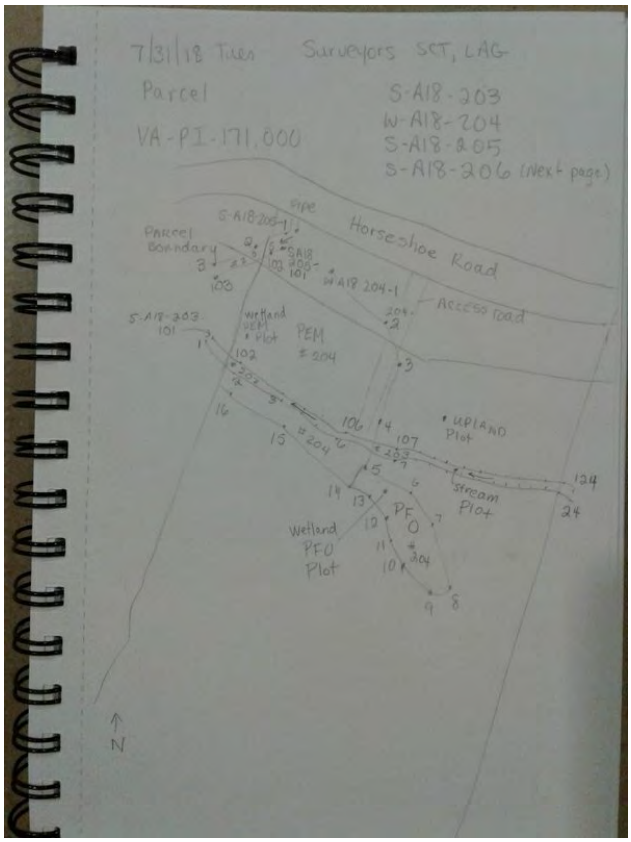
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	8.25
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Additional Stream Photos



Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-206

Created	2018-07-31 14:45:45 UTC by Laura Giese
Updated	2018-09-20 19:07:02 UTC by Susie Gifford (SBG)
Location	36.5855907, -79.5881254
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/31
Date2	180731

Resource Crew Info

Field Crew	Laura Giese, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	206
Resource ID	S-A18-206
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	22.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NW
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated, leaves

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated, leaves

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	12

Stream Hydrology

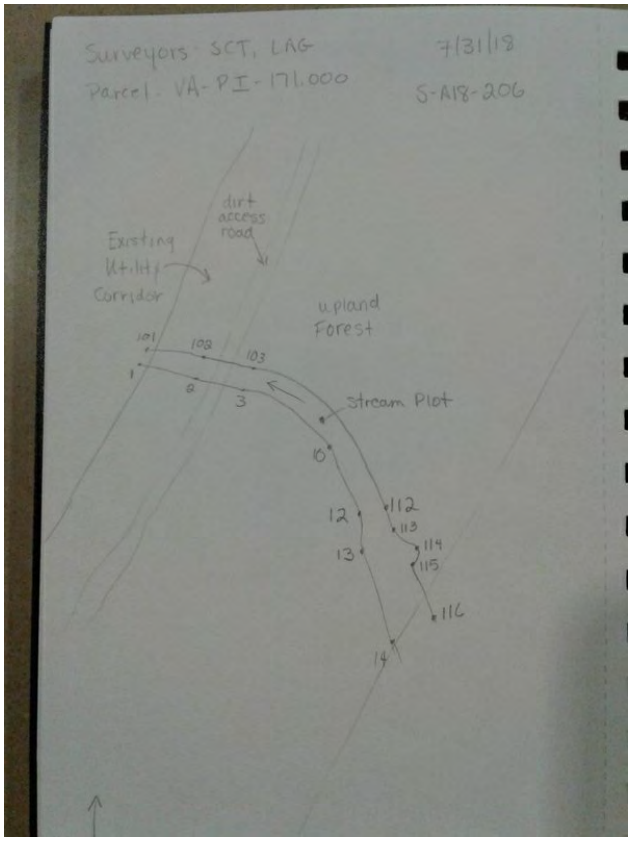
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Notes	Lower part of channel through ROW and vegetated
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	NE

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-207

Created	2018-08-01 15:41:54 UTC by Laura Giese
Updated	2018-08-02 13:43:16 UTC by Laura Giese
Location	36.0561797, -79.3647361
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/01
Date2	180801

Resource Crew Info

Field Crew	Laura Giese, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	207
Resource ID	S-A18-207
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	21.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NW
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Cobble-Gravel, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.75
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.4
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.15

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	11

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4.5

Stream Biology

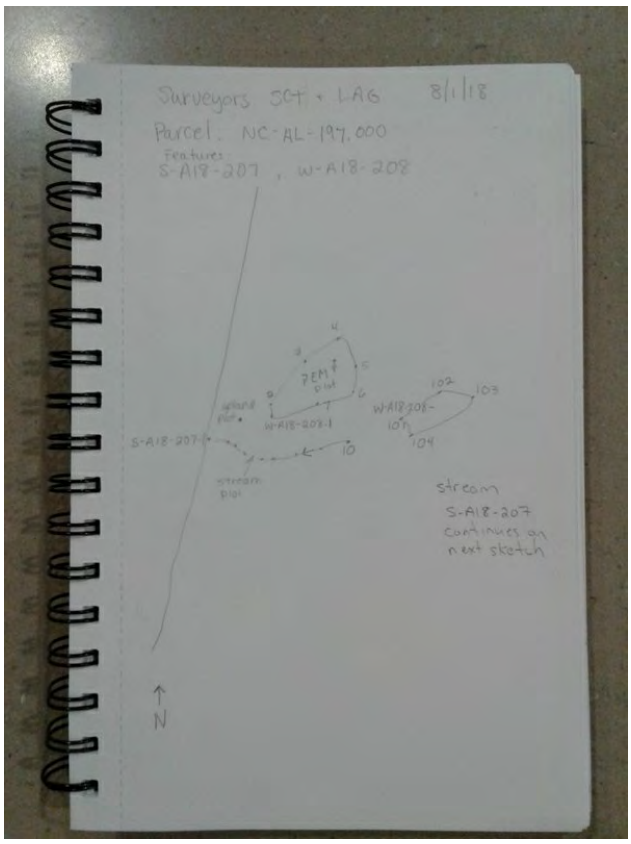
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

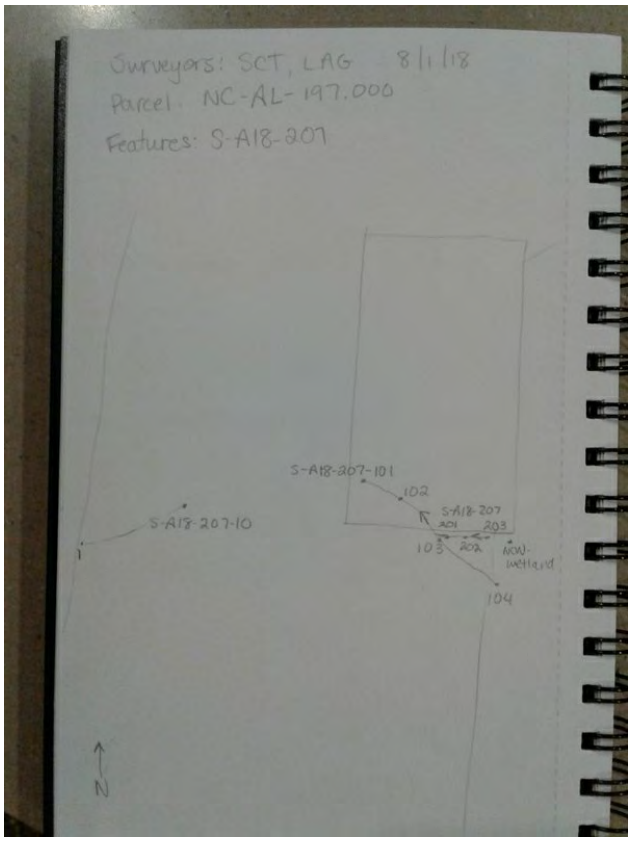
Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	 207-100s UP
Across stream photo direction 1	N
Additional Stream Photos	

207-100s DN

207-200s UP

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-209

Created	2018-08-02 12:44:14 UTC by Laura Giese
Updated	2018-08-03 10:52:29 UTC by Laura Giese
Location	36.3867494, -79.6386409
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/02
Date2	180802

Resource Crew Info

Field Crew	Laura Giese, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	209
Resource ID	S-A18-209
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	30
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	3
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Weak
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	15

Stream Hydrology

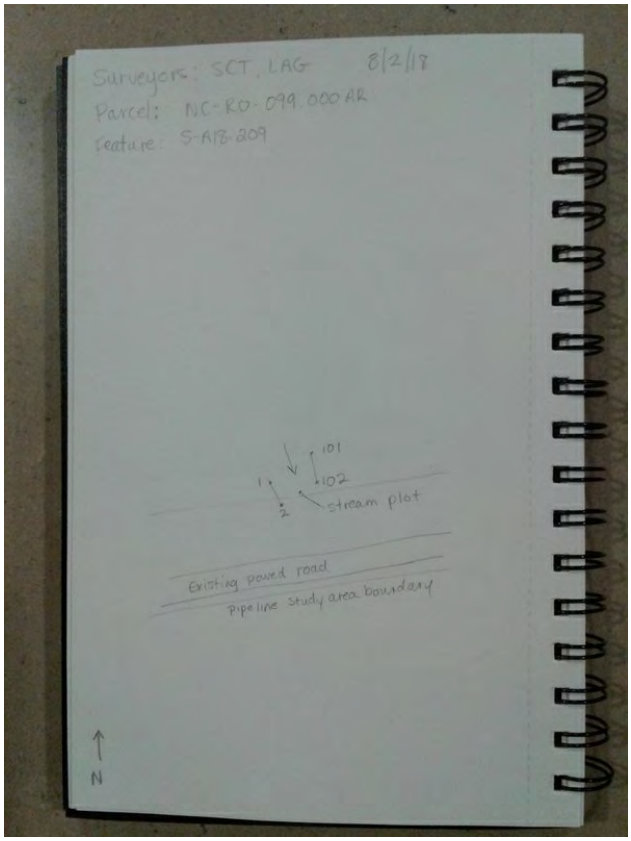
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	7
Notes	Heavy rains obscured biological component
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-210

Created	2018-08-02 15:26:54 UTC by Laura Giese
Updated	2018-08-03 10:53:37 UTC by Laura Giese
Location	36.3839612, -79.6328417
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/02
Date2	180802

Resource Crew Info

Field Crew	Laura Giese, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	210
Resource ID	S-A18-210
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	28
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	14.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

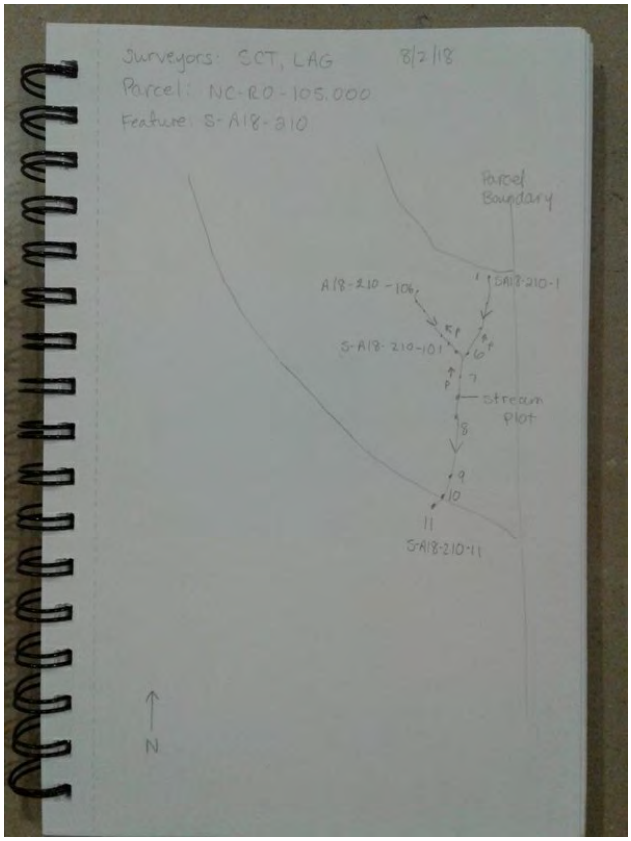
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Notes	Two ephemeral streams converge upslope. Flow is after heavy rains
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
	Confluence
Across stream photo direction 1	W
Additional Stream Photos	

Ephemeral 1-5 UP

Ephemeral 100s UP

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-211

Created	2018-08-23 16:22:42 UTC by Will Buetow
Updated	2018-08-23 18:35:34 UTC by Will Buetow
Location	36.3227502, -79.5955593
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/23
Date2	180823

Resource Crew Info

Field Crew	Will Buetow Kalee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	211
Resource ID	S-A18-211
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-211
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	13
Calculated Stream Type	Ephemeral
Wildlife Observed	none
Observed Use	none

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	0
Bank to Bank (ft)	4
Bankfull Width (ft)	4

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Absent
Particle size of stream substrate	Weak
Active or relict floodplain	Moderate
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	No

Stream Geomorphology Total	10

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1

Stream Biology

Fibrous roots in streambed	Moderate
Rooted upland plants in streambed	Moderate
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	2
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	SW

Across Stream Photo 2	
Across stream photo direction 2	NE
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-211

Created	2018-08-03 14:54:41 UTC by Laura Giese
Updated	2018-08-04 10:58:02 UTC by Laura Giese
Location	36.3231625, -79.5956415
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/03
Date2	180803

Resource Crew Info

Field Crew	Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	211
Resource ID	S-A18-211
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	18.5
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Low
Left Bank Substrate	Sand, Silt-Mud, leaves

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Sand, Silt-Mud, leaves

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	10

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	2.5

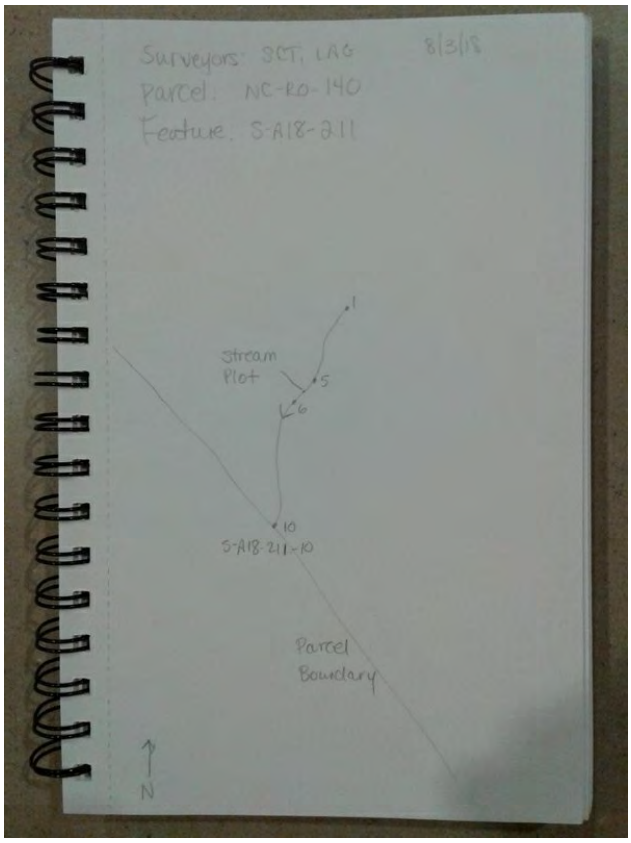
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Notes	Flow after heavy rains
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-212

Created	2018-08-03 17:07:12 UTC by Laura Giese
Updated	2018-08-04 10:56:16 UTC by Laura Giese
Location	36.3221583, -79.5938681
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/03
Date2	180803

Resource Crew Info

Field Crew	Laura Giese, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	212
Resource ID	S-A18-212
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	27.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Cobble-Gravel, Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Cobble-Gravel, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	14

Stream Hydrology

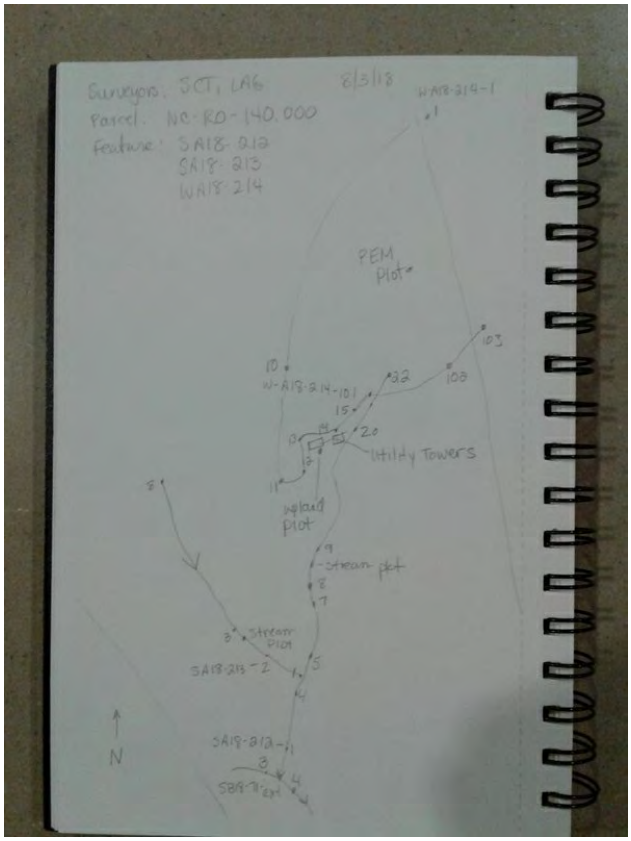
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Notes	Strong flow after heavy rains
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-213

Created	2018-08-03 16:53:24 UTC by Laura Giese
Updated	2018-08-04 10:55:11 UTC by Laura Giese
Location	36.3220722, -79.5940055
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/03
Date2	180803

Resource Crew Info

Field Crew	Laura Giese, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	213
Resource ID	S-A18-213
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	19
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	6.5

Stream Hydrology

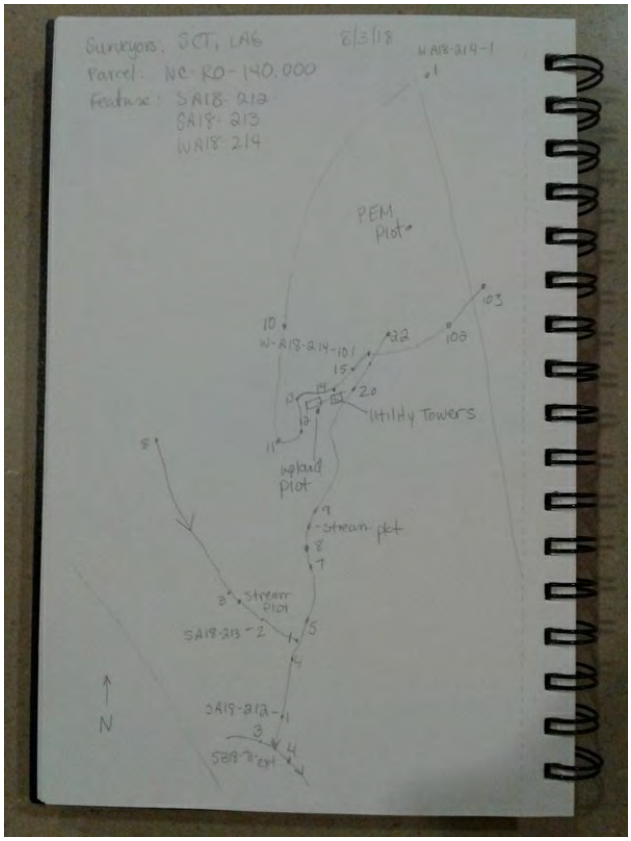
Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Notes	Some flow after heavy rains
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-215

Created	2018-08-04 15:23:59 UTC by Laura Giese
Updated	2018-08-04 21:40:36 UTC by Laura Giese
Location	36.216964, -79.5203027
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/04
Date2	180804

Resource Crew Info

Field Crew	Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	215
Resource ID	S-A18-215
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	33.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	3
Bank to Bank (ft)	6
Bankfull Width (ft)	6
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Absent
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	16.5

Stream Hydrology

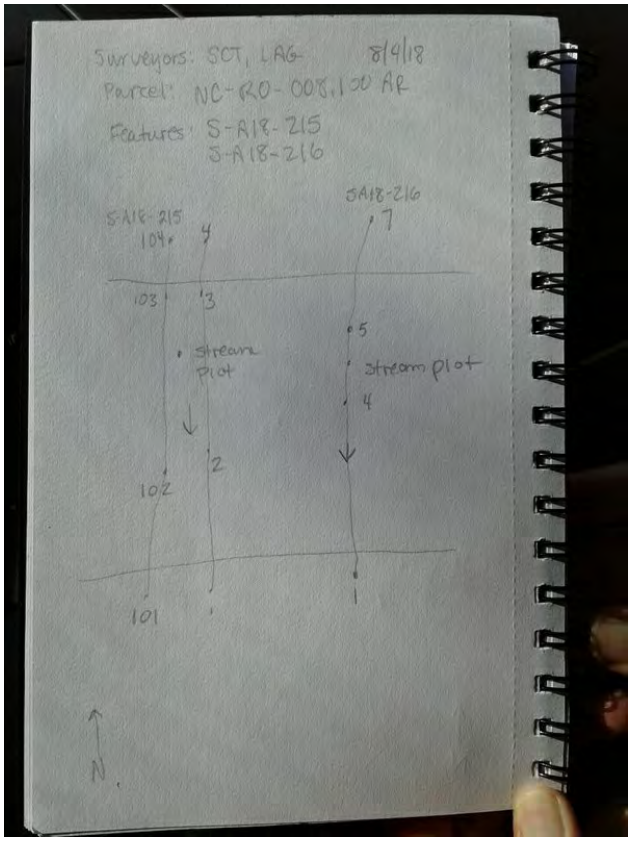
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Moderate
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	7.5
Notes	Likely confluence of C62 and C63, Biology obscured due to murky water after heavy rains, rocky Ford for dirt road crossing.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-216

Created	2018-08-04 15:42:38 UTC by Laura Giese
Updated	2018-08-04 21:41:01 UTC by Laura Giese
Location	36.2170297, -79.5201664
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/04
Date2	180804

Resource Crew Info

Field Crew	Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	216
Resource ID	S-A18-216
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	24
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	12.5

Stream Hydrology

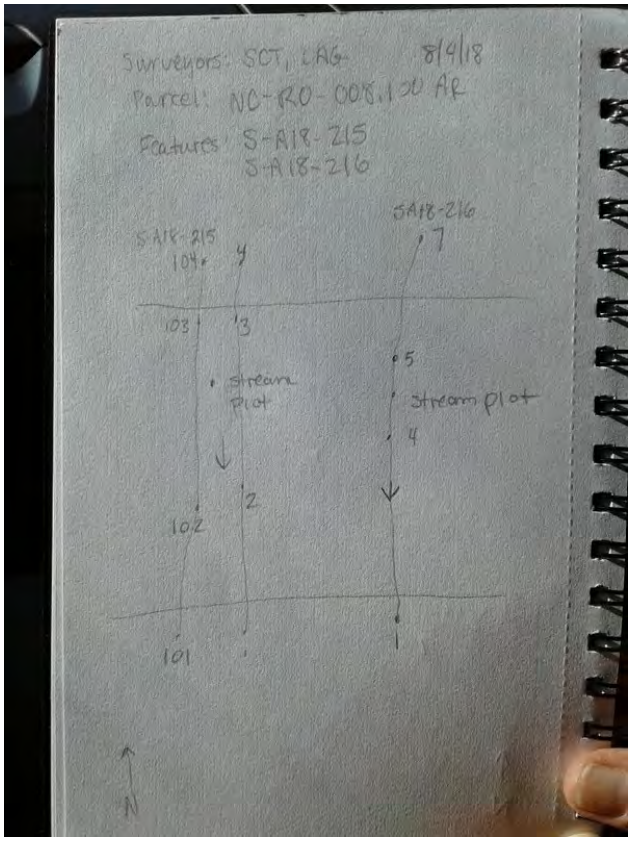
Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Notes	Rocky ford for dirt road crossing
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-217

Created	2018-08-04 17:41:21 UTC by Laura Giese
Updated	2018-08-04 21:42:52 UTC by Laura Giese
Location	36.2479003, -79.5390868
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/04
Date2	180804

Resource Crew Info

Field Crew	Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	217
Resource ID	S-A18-217
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	19
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	6.5

Stream Hydrology

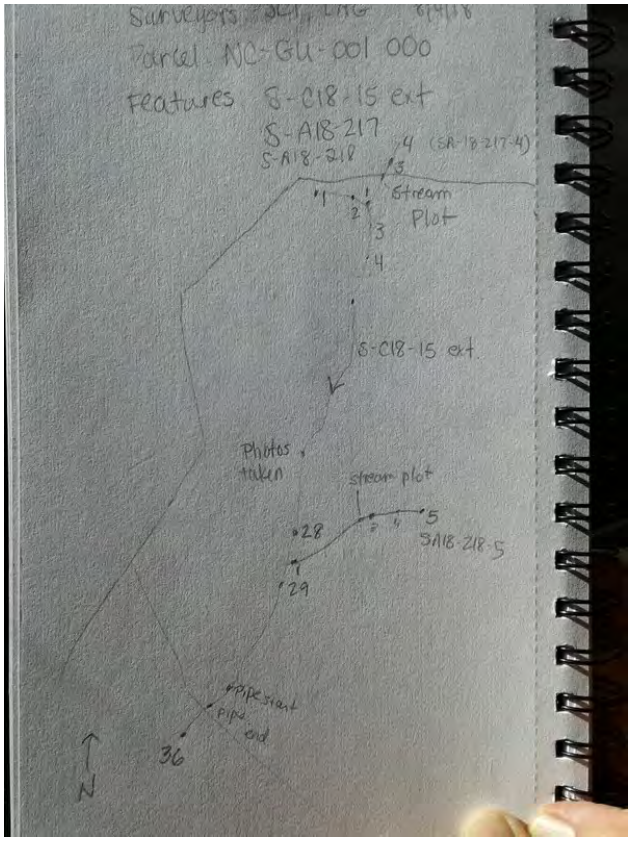
Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	6.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	SE

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-218

Created	2018-08-04 18:39:42 UTC by Laura Giese
Updated	2018-09-20 19:08:14 UTC by Susie Gifford (SBG)
Location	36.2466066, -79.5388977
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/04
Date2	180804

Resource Crew Info

Field Crew	Laura Giese, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	218
Resource ID	S-A18-218
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	23.25
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	7

Stream Hydrology

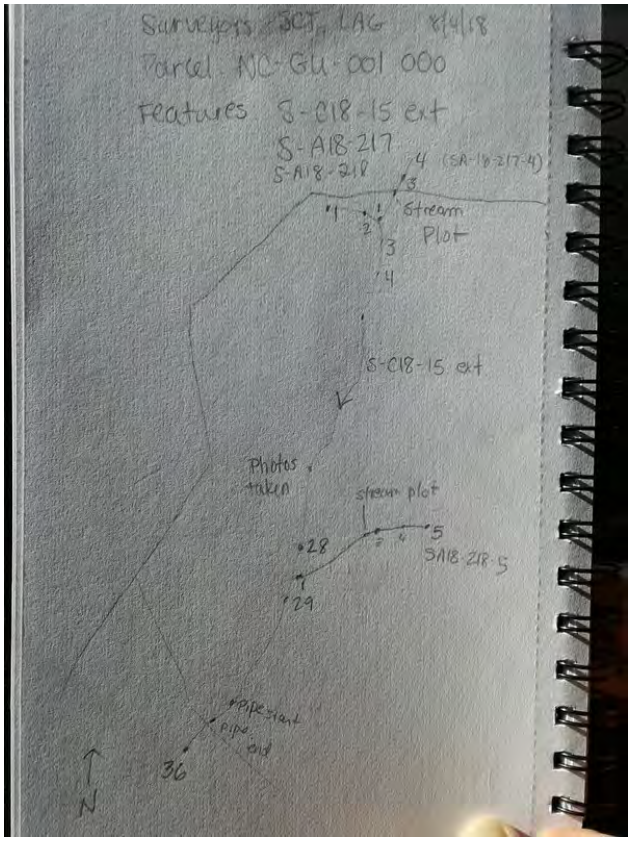
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	8.25
Notes	Seepage stream
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	NW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-219

Created	2018-08-04 19:33:42 UTC by Laura Giese
Updated	2018-08-04 21:41:45 UTC by Laura Giese
Location	36.2444412, -79.5361564
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/04
Date2	180804

Resource Crew Info

Field Crew	Laura Giese, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	219
Resource ID	S-A18-219
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	35
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	7
Average Water Width (ft)	4
Bank to Bank (ft)	7
Bankfull Width (ft)	7
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Strong
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	17

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Absent
Stream Biology Total	10
Notes	Stream rocks are jagged
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	S

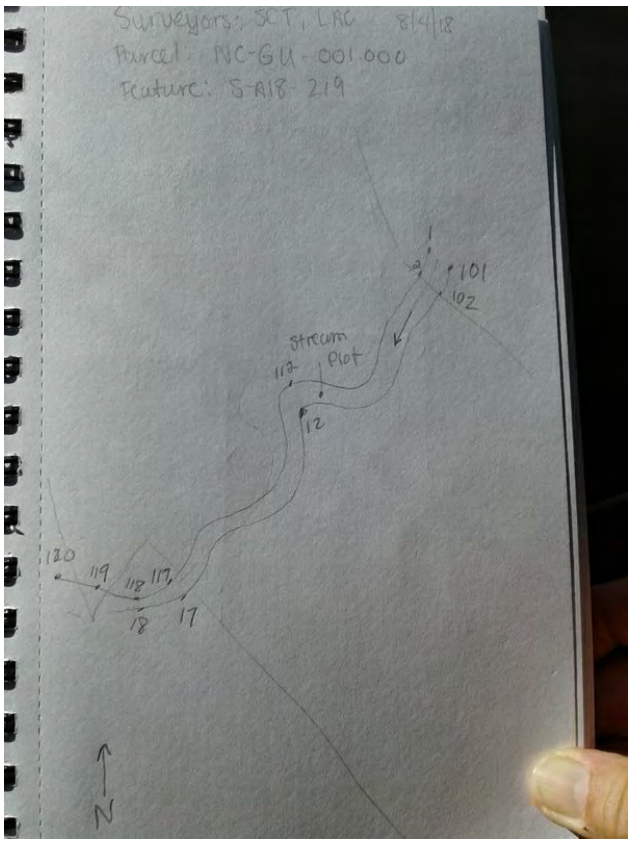
Additional Stream Photos

upstream of ROW UP

in ROW UP

in ROW DN

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-220

Created	2018-08-28 07:54:44 EDT by Simon King
Updated	2018-09-19 08:43:47 EDT by Nathan Renaudin
Location	36.4613197, -79.7016058
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/28
Date2	180828

Resource Crew Info

Field Crew	Nathan Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	220
Resource ID	S-A18-220
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	13
Calculated Stream Type	Ephemeral
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W
Channel condition	Suboptimal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0.7
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0.7

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	1
Bank to Bank (ft)	4
Bankfull Width (ft)	4

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1.5
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	1.1
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Absent
Second or greater order channel	No

Stream Geomorphology Total	5.5

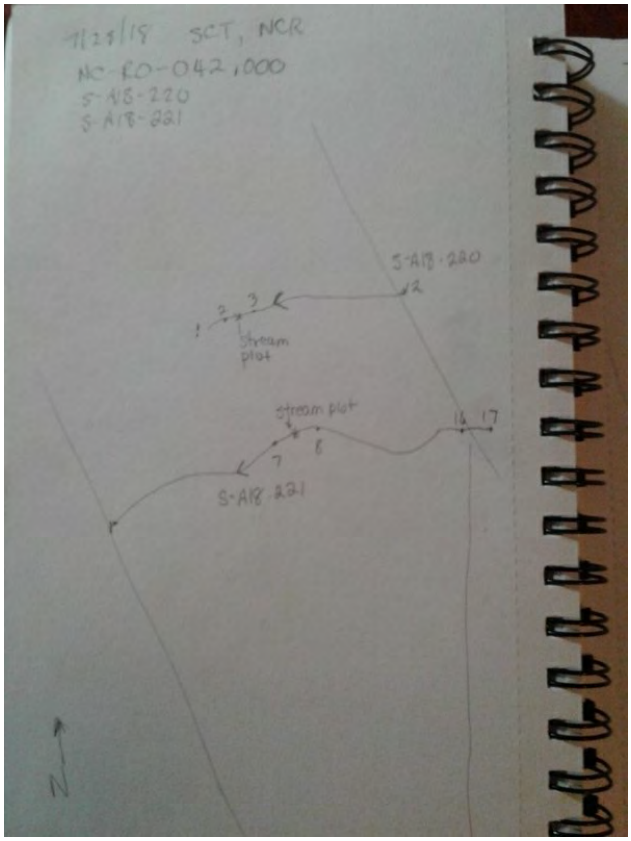
Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	No
Stream Hydrology Total	2

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Weak
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Weak
Wetland plants in streambed	Other
Stream Biology Total	5.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-221

Created	2018-08-28 08:25:13 EDT by Simon King
Updated	2018-09-19 08:45:55 EDT by Nathan Renaudin
Location	36.4608361, -79.7010679
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/28
Date2	180828

Resource Crew Info

Field Crew	Nathan Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	221
Resource ID	S-A18-221
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	31
Calculated Stream Type	Perennial
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	W
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0.7
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0.7

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	2
Bank to Bank (ft)	5
Bankfull Width (ft)	5

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	0.5
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.75
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.75

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Moderate
Natural valley	Weak
Second or greater order channel	Yes

Stream Geomorphology Total	15.5

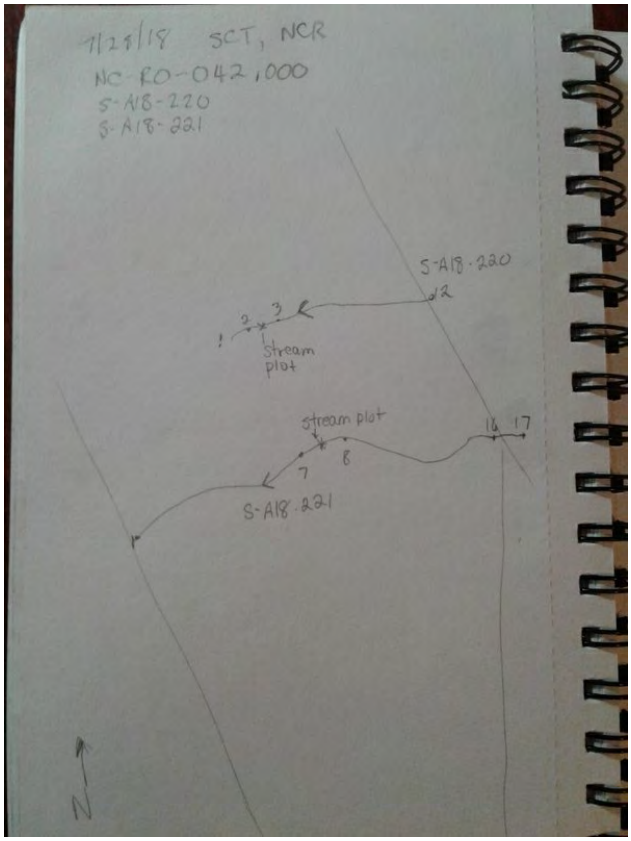
Stream Hydrology

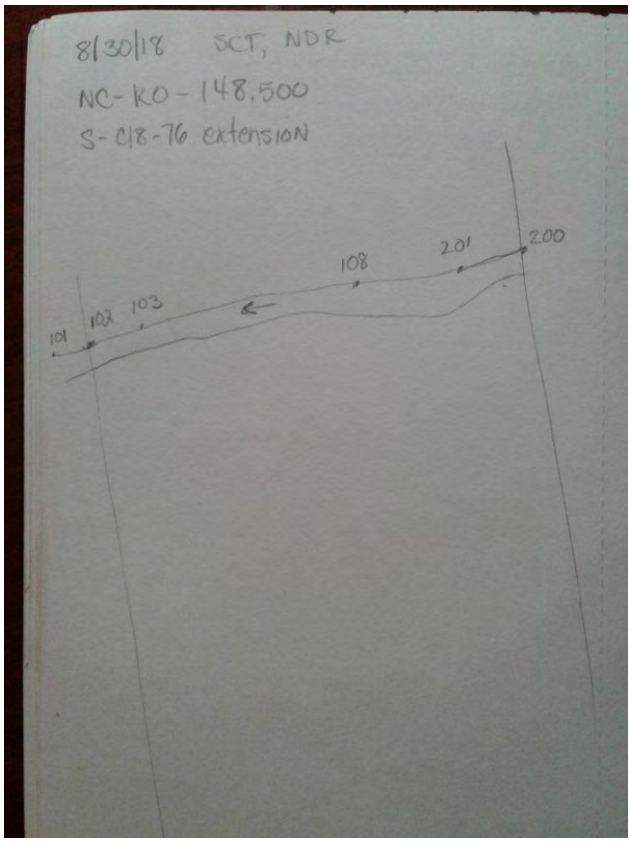
Presence of baseflow	Moderate
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Weak
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Moderate
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	S
Sketch of Stream	



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-223

Created	2018-08-28 11:04:27 EDT by Simon King
Updated	2018-09-19 08:48:54 EDT by Nathan Renaudin
Location	36.4556881, -79.698158
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/28
Date2	180828

Resource Crew Info

Field Crew	Nathan Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	223
Resource ID	S-A18-223
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	21.5
Calculated Stream Type	Intermittent
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	W
Channel condition	Poor
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0.5
Channel Alteration Total	0.5

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	2
Bank to Bank (ft)	5
Bankfull Width (ft)	5

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	0.5
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0.6
Low poor (0.5) [Left]	0
Left bank total	0.6

Right Bank

Right Bank Height (feet)	0.5
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.75
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.75

Stream Geomorphology

Continuity of channel bed and bank	Weak
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Moderate
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Moderate
Natural valley	Weak
Second or greater order channel	No

Stream Geomorphology Total	8.5

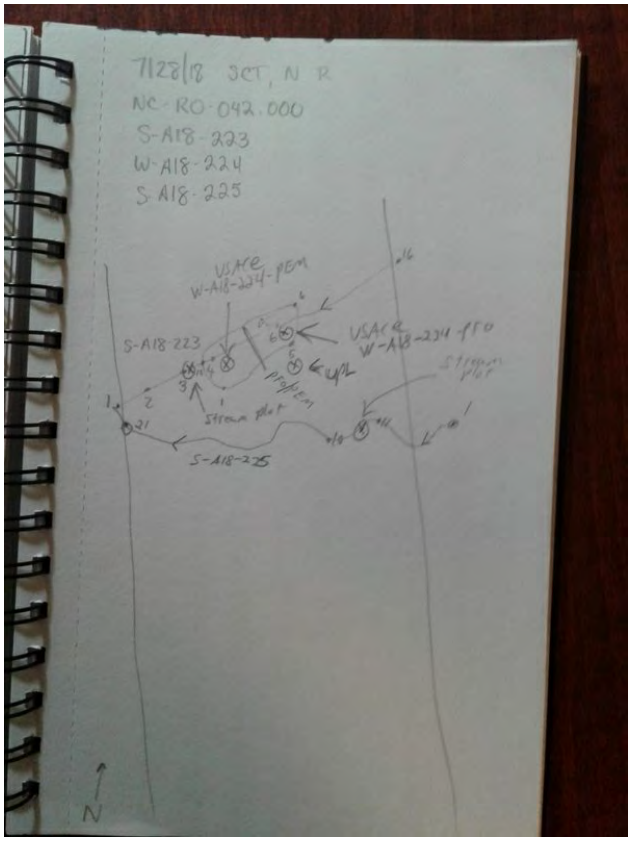
Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Moderate
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6.5

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Moderate
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Absent
Algae	Weak
Wetland plants in streambed	OBL
Stream Biology Total	6.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-225

Created	2018-08-28 12:18:05 EDT by Simon King
Updated	2018-09-19 08:53:25 EDT by Nathan Renaudin
Location	36.4552234, -79.6971078
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/28
Date2	180828

Resource Crew Info

Field Crew	Nathan Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	225
Resource ID	S-A18-225
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	31.75
Calculated Stream Type	Perennial
Wildlife Observed	Fish
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	W
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	5
Average Water Width (ft)	4
Bank to Bank (ft)	6

Bankfull Width (ft)	6
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.75
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.75

Right Bank

Right Bank Height (feet)	7
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0.6
Low poor (0.5) [Right]	0
Right bank total	0.6

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Weak
Natural valley	Weak

Second or greater order channel	No
Stream Geomorphology Total	14

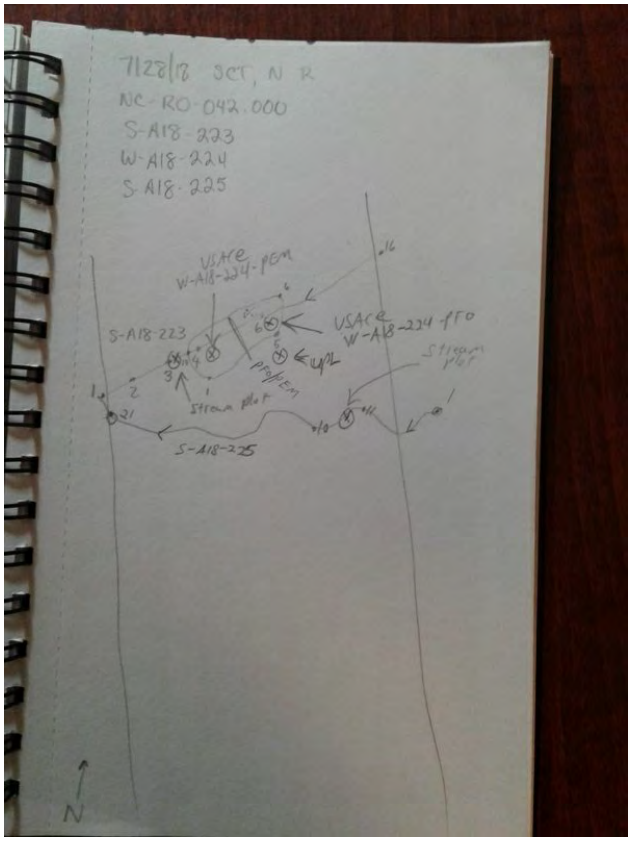
Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Weak
Wetland plants in streambed	FACW
Stream Biology Total	9.25
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-226

Created	2018-08-29 14:14:04 UTC by Will Buetow
Updated	2018-08-29 14:37:27 UTC by Will Buetow
Location	36.3380105, -79.6040188
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/29
Date2	180829

Resource Crew Info

Field Crew	Nathan Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	226
Resource ID	S-A18-226
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	12
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W
Channel condition	Poor
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0.9
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0.9

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	0
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.75
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.75

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.75
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.75

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	7.5

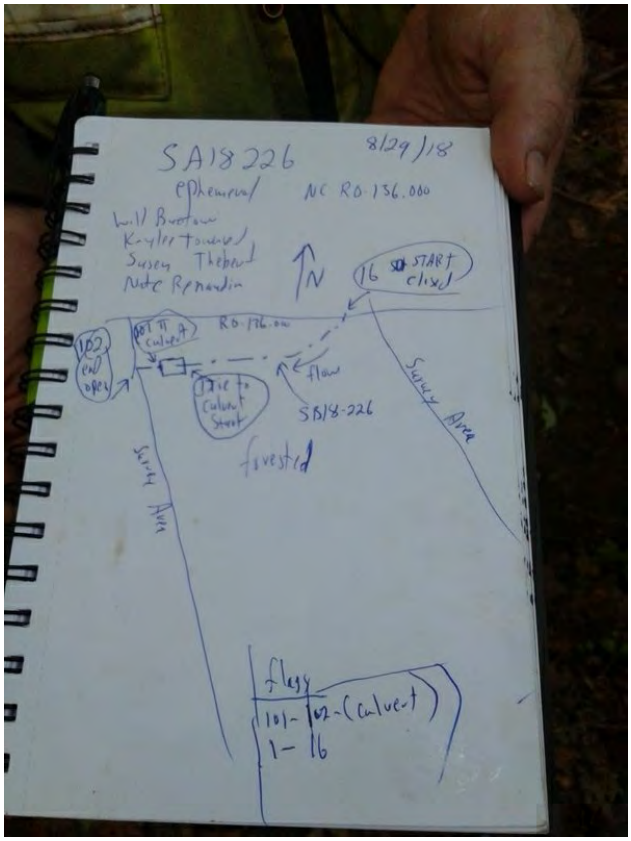
Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Moderate
Rooted upland plants in streambed	Weak
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	3
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-228

Created	2018-08-29 15:02:06 UTC by Will Buetow
Updated	2018-08-29 15:28:25 UTC by Will Buetow
Location	36.336271, -79.6025009
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/29
Date2	180829

Resource Crew Info

Field Crew	Nathan Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	228
Resource ID	S-A18-228
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	16
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0.9
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0.9

Stream Measurements

OHWM Width (ft)	5
Average Water Width (ft)	3
Bank to Bank (ft)	6
Bankfull Width (ft)	6
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	5
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0.85
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.85

Right Bank

Right Bank Height (feet)	5
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.75
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.75

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	10

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Weak
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Weak
Wetland plants in streambed	Other
Stream Biology Total	4.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SW

Downstream Stream Photo	
Downstream photo direction	NE
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-229

Created	2018-08-29 15:07:06 UTC by Will Buetow
Updated	2018-08-29 15:28:49 UTC by Will Buetow
Location	36.3361956, -79.6022192
Status	Field Crew Reviewed
Client	NextEra
Project	MVP Southgate
Date	18/08/29
Date2	180829

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	A18
GPS Surveyor	kaylee townsend
GPS ID	NA
Resource Series Number	229
Resource ID	S-A18-229
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	30
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	3
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	7
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	7
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Moderate
Headcuts	Weak
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	19.5

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6.5

Stream Biology

Fibrous roots in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Weak
Stream Biology Total	4
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-230

Created	2018-08-29 15:17:36 UTC by Will Buetow
Updated	2018-08-29 15:29:10 UTC by Will Buetow
Location	36.3361954, -79.6023213
Status	Field Crew Reviewed
Client	NextEra
Project	MVP Southgate
Date	18/08/29
Date2	180829

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	A18
GPS Surveyor	kaylee townsend
GPS ID	NA
Resource Series Number	230
Resource ID	S-A18-230
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	28.5
Calculated Stream Type	Intermittent
Wildlife Observed	Frogs

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	1
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	6
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	6
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Weak
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	14

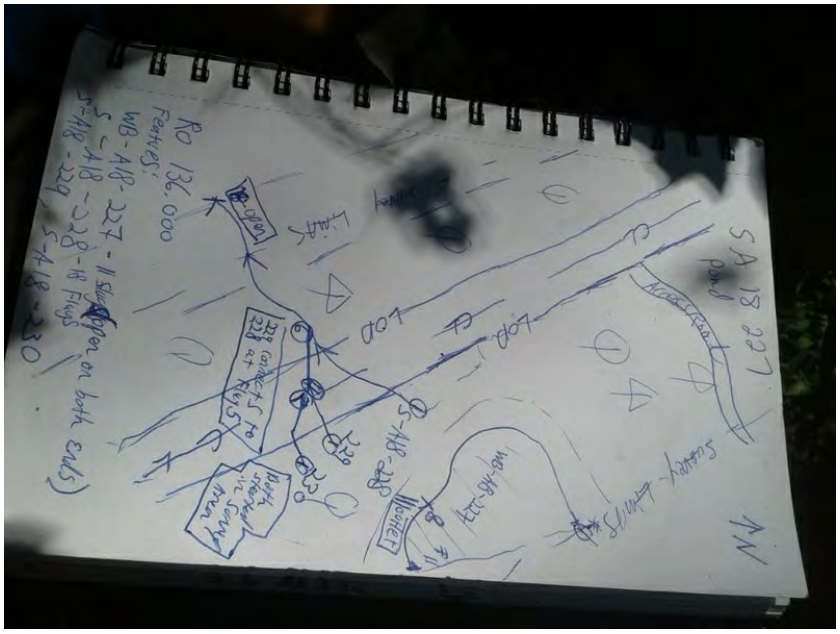
Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Weak
Leaf litter	Moderate
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	6.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-231

Created	2018-08-29 17:31:02 UTC by Will Buetow
Updated	2018-08-29 17:47:19 UTC by Will Buetow
Location	36.3133373, -79.5892996
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/29
Date2	180829

Resource Crew Info

Field Crew	Nathan Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	231
Resource ID	S-A18-231
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	15.5
Calculated Stream Type	Ephemeral
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	3
Bank to Bank (ft)	5
Bankfull Width (ft)	5

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	1.1
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Absent
Second or greater order channel	No

Stream Geomorphology Total	8

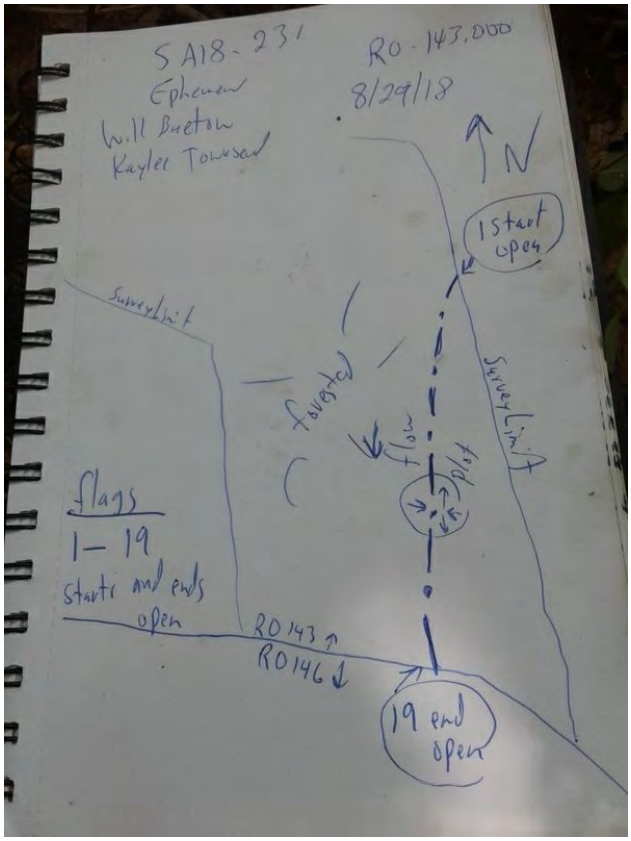
Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	No
Stream Hydrology Total	2.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Weak
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Across Stream Photo 2	
Across stream photo direction 2	E
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-232

Created	2018-08-29 17:53:42 UTC by Will Buetow
Updated	2018-09-20 19:08:30 UTC by Susie Gifford (SBG)
Location	36.3138943, -79.5901291
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/29
Date2	180829

Resource Crew Info

Field Crew	Nathan Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	232
Resource ID	S-A18-232
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	13
Calculated Stream Type	Ephemeral
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW
Channel condition	Marginal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	1.1
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.1

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	1.1
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Absent
Second or greater order channel	No

Stream Geomorphology Total	7

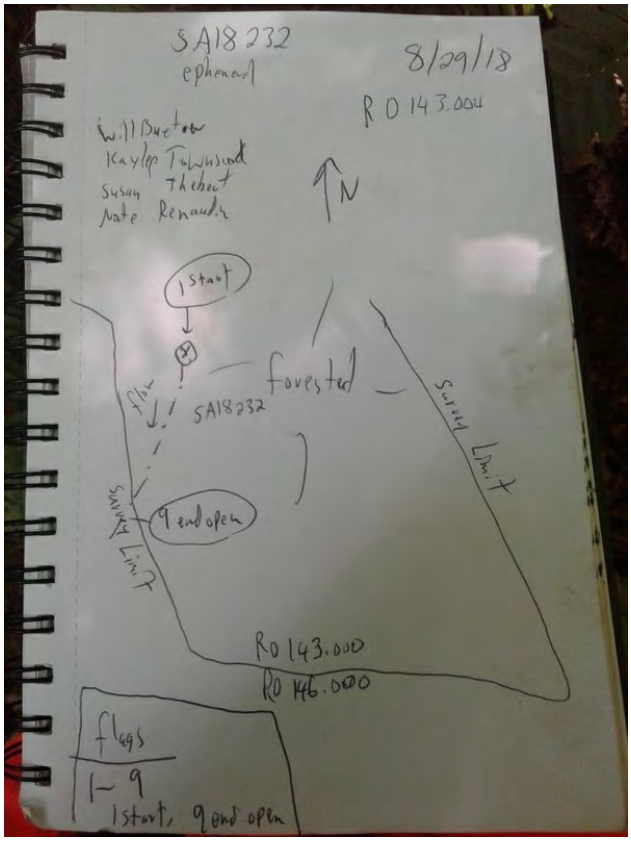
Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	2

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Weak
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	4
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-233

Created	2018-08-31 12:28:22 UTC by Simon King
Updated	2018-08-31 13:05:35 UTC by Simon King
Location	36.1168487, -79.372524
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/31
Date2	180831

Resource Crew Info

Field Crew	Nathan Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	233
Resource ID	S-A18-233
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	42
Calculated Stream Type	Perennial
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	W
Channel condition	Optimal
In stream habitat	Optimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	15
Average Water Width (ft)	12
Bank to Bank (ft)	18

Bankfull Width (ft)	18
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	6
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	7
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	1.1
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Moderate
Headcuts	Weak
Grade control	Moderate
Natural valley	Weak

Second or greater order channel	Yes
Stream Geomorphology Total	21.5

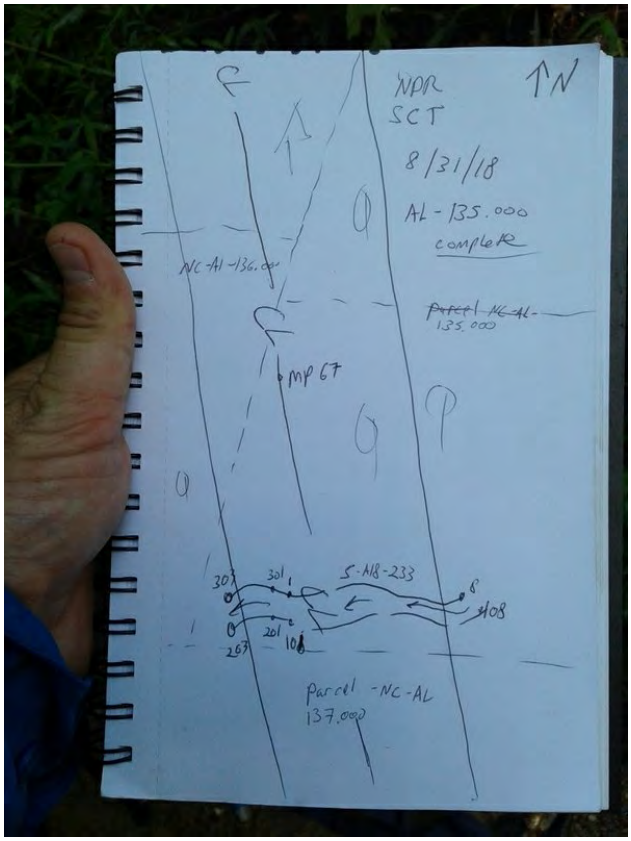
Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Moderate
Leaf litter	Weak
Sediment on plants or debris	Moderate
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	11

Stream Biology

Fibrous roots in streambed	Moderate
Rooted upland plants in streambed	Weak
Macrobenthos	Strong
Aquatic mullusks	Weak
Fish	Weak
Crayfish	Weak
Amphibians	Moderate
Algae	Weak
Wetland plants in streambed	Other
Stream Biology Total	9.5
Regulatory Status	Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	S

Across Stream Photo 2	
Across stream photo direction 2	N
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-234

Created	2018-09-04 13:37:51 UTC by Laura Giese
Updated	2018-09-05 09:45:23 UTC by Laura Giese
Location	36.312354, -79.5894415
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/04
Date2	180904

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
Resource Series Number	234
Resource ID	S-A18-234
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	21.25
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2

Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Cobble-Gravel, Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Cobble-Gravel, Sand, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Weak
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	10

Stream Hydrology

Presence of baseflow	Absent

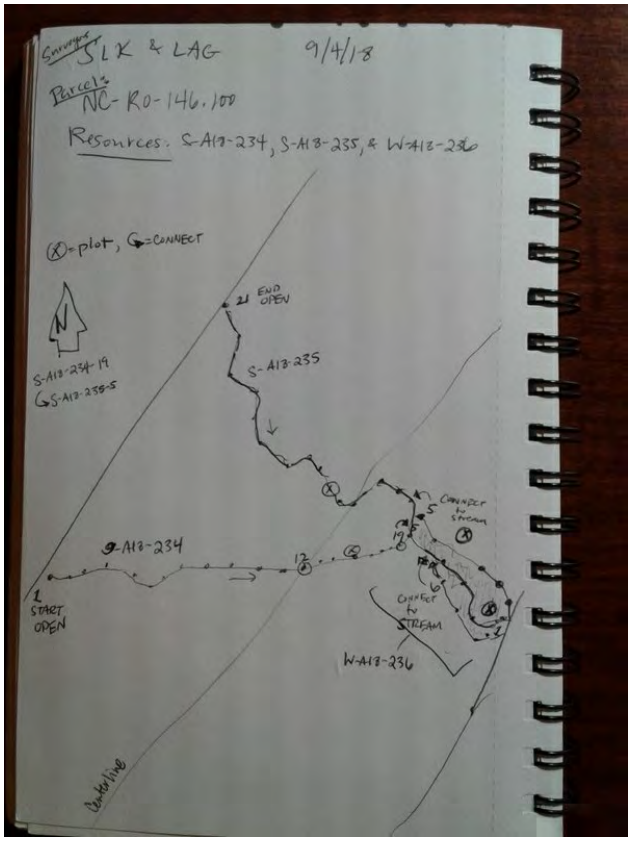
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5.5

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	5.75
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-235

Created	2018-09-04 14:50:16 UTC by Laura Giese
Updated	2018-09-05 09:45:47 UTC by Laura Giese
Location	36.3125191, -79.5895617
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/04
Date2	180904

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
Resource Series Number	235
Resource ID	S-A18-235
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	43.25
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	E

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3

Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Cobble-Gravel, Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Cobble-Gravel, Sand, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Moderate
Headcuts	Weak
Grade control	Weak
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	21

Stream Hydrology

Presence of baseflow	Strong

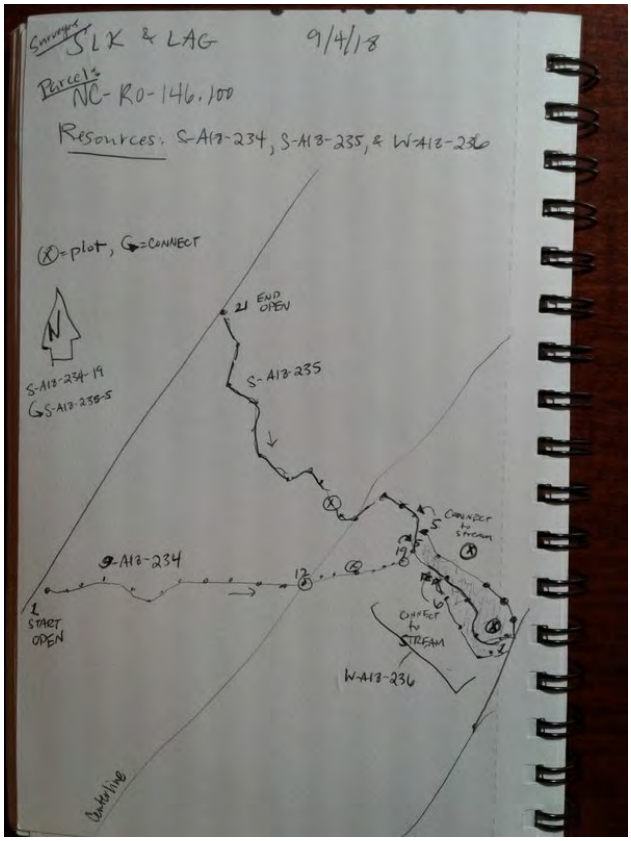
Iron oxidizing bacteria	Weak
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Moderate
Crayfish	Moderate
Amphibians	Strong
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	13.25
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	W

Downstream Stream Photo	
Downstream photo direction	E
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-237

Created	2018-09-04 16:48:07 UTC by Laura Giese
Updated	2018-09-20 19:08:44 UTC by Susie Gifford (SBG)
Location	36.311551, -79.5943253
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/04
Date2	180904

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
Resource Series Number	237
Resource ID	S-A18-237
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	21
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1

Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated, leaf litter

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	10.5

Stream Hydrology

Presence of baseflow	Absent

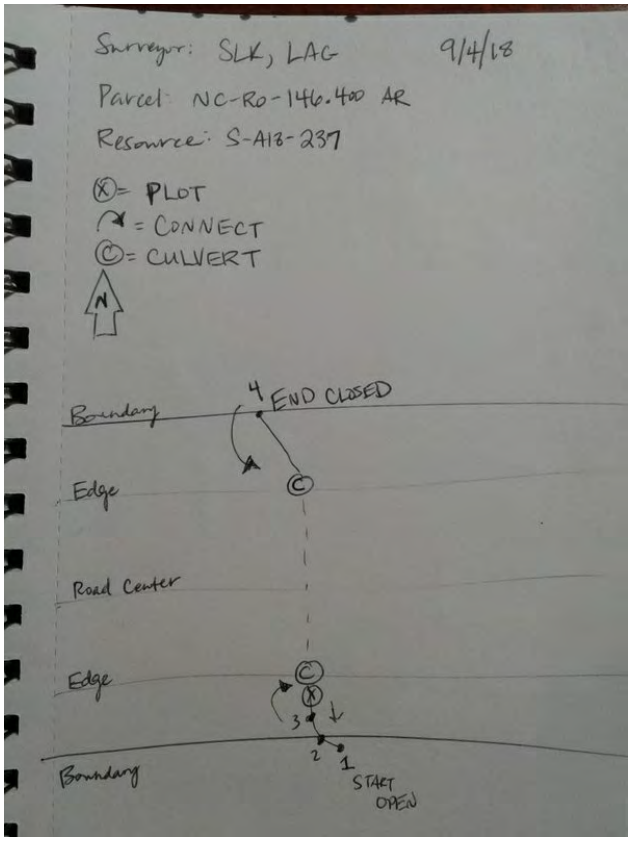
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	SW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-238

Created	2018-09-04 18:24:09 UTC by Laura Giese
Updated	2018-09-05 09:43:36 UTC by Laura Giese
Location	36.3085975, -79.5947623
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/04
Date2	180904

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
Resource Series Number	238
Resource ID	S-A18-238
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	20.25
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	E

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2

Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	8.5

Stream Hydrology

Presence of baseflow	Absent

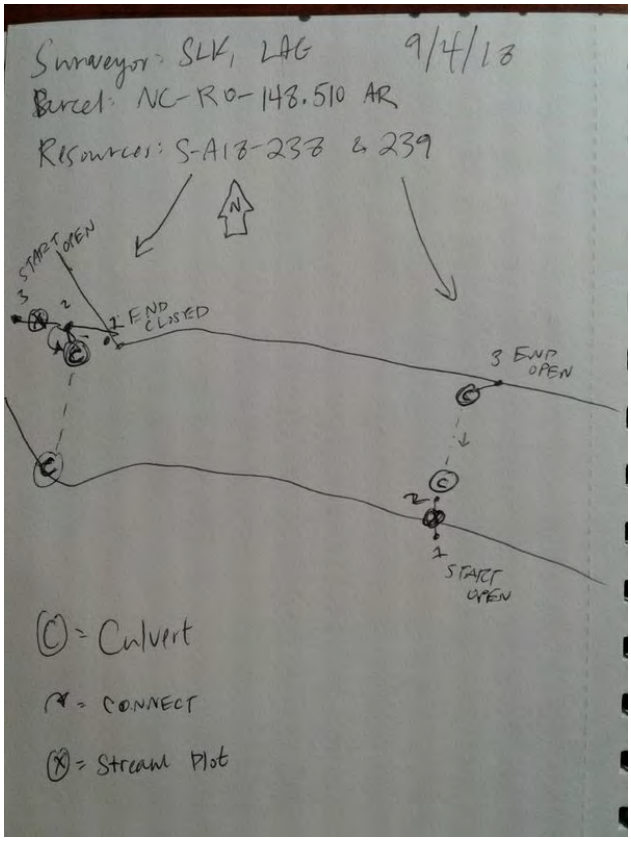
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	7.75
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	W

Downstream Stream Photo	
Downstream photo direction	E
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-239

Created	2018-09-04 18:34:03 UTC by Laura Giese
Updated	2018-09-05 09:43:13 UTC by Laura Giese
Location	36.3084302, -79.5934306
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/04
Date2	180904

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
Resource Series Number	239
Resource ID	S-A18-239
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	23
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1

Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	12

Stream Hydrology

Presence of baseflow	Absent

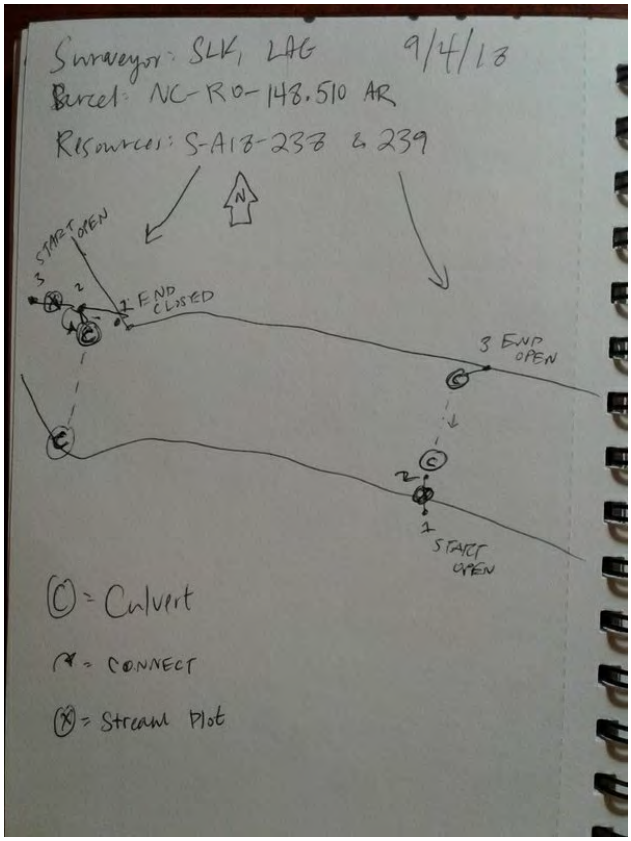
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	6.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	SW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-242

Created	2018-09-05 16:09:20 UTC by Laura Giese
Updated	2018-09-06 10:24:28 UTC by Laura Giese
Location	36.2976176, -79.5812589
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/05
Date2	180905

Resource Crew Info

Field Crew	Laura Giese, Chris Covington
Lead Scientist's Initials	A18
GPS Surveyor	Chris Covington
GPS ID	NA
Resource Series Number	242
Resource ID	S-A18-242
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	38
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	N

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	2
Bank to Bank (ft)	7
Bankfull Width (ft)	7
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Cobble-Gravel, Sand, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Strong
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Moderate
Headcuts	Absent
Grade control	Weak
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	20

Stream Hydrology

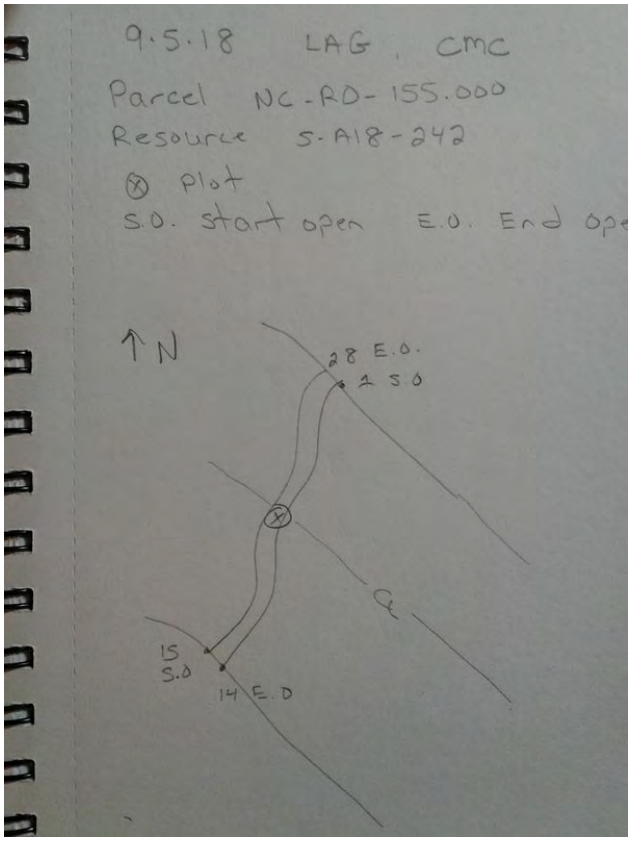
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Moderate
Algae	Absent
Stream Biology Total	9.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-243

Created	2018-09-06 13:31:03 UTC by Laura Giese
Updated	2018-09-06 13:38:24 UTC by Laura Giese
Location	36.2693323, -79.5574625
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/06
Date2	180906

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	243
Resource ID	S-A18-243
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	39.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	8
Average Water Width (ft)	5
Bank to Bank (ft)	10
Bankfull Width (ft)	10
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Strong
Particle size of stream substrate	Strong
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Weak
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	21

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Moderate
Algae	Absent
Stream Biology Total	10.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-244

Created	2018-09-06 14:01:56 UTC by Laura Giese
Updated	2018-09-20 19:09:21 UTC by Susie Gifford (SBG)
Location	36.270853, -79.5564293
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/06
Date2	180906

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	244
Resource ID	S-A18-244
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	34.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated, leaf litter

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated, leaf litter

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	17

Stream Hydrology

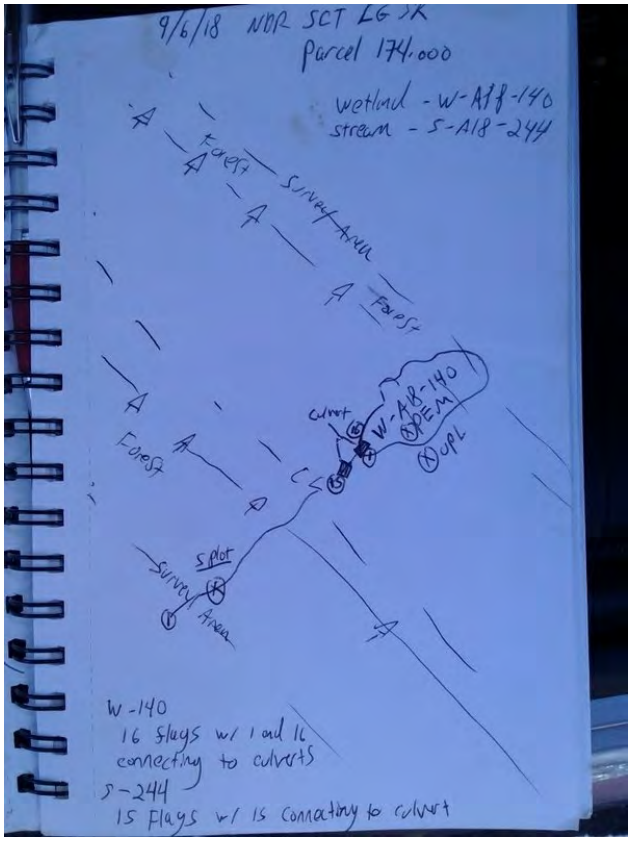
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	9.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-246

Created	2018-09-07 12:21:43 UTC by Laura Giese
Updated	2018-09-07 22:32:38 UTC by Laura Giese
Location	36.5094701, -79.7175871
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/07
Date2	180907

Resource Crew Info

Field Crew	Laura Giese, Simon King, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	246
Resource ID	S-A18-246
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	21
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	E

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	10

Stream Hydrology

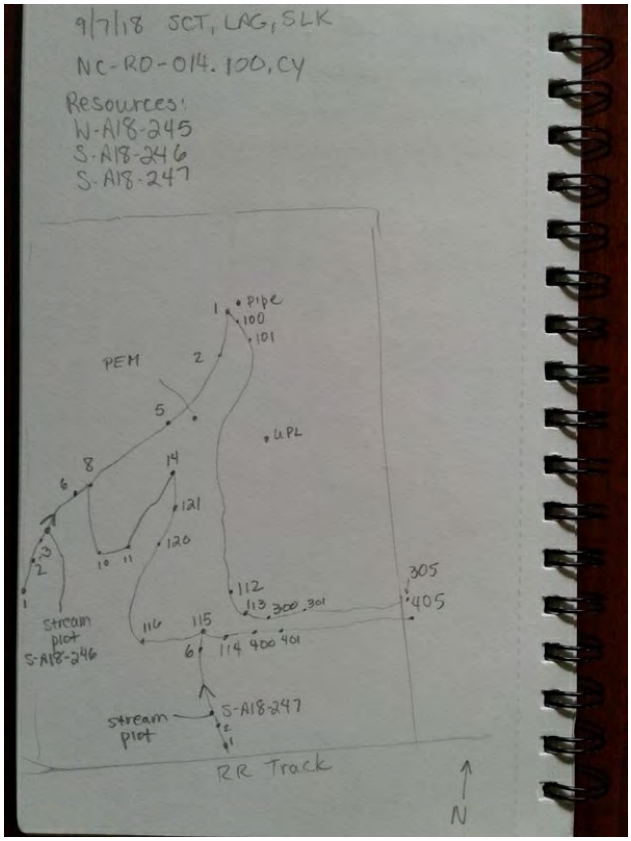
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Notes	Dry vernal pool upslope
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	W

Downstream Stream Photo	
Downstream photo direction	E
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-247

Created	2018-09-07 13:05:46 UTC by Laura Giese
Updated	2018-09-07 22:32:15 UTC by Laura Giese
Location	36.5089405, -79.7169117
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/07
Date2	180907

Resource Crew Info

Field Crew	Laura Giese, Simon King, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	247
Resource ID	S-A18-247
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	23.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	N

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Moderate
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	10.5

Stream Hydrology

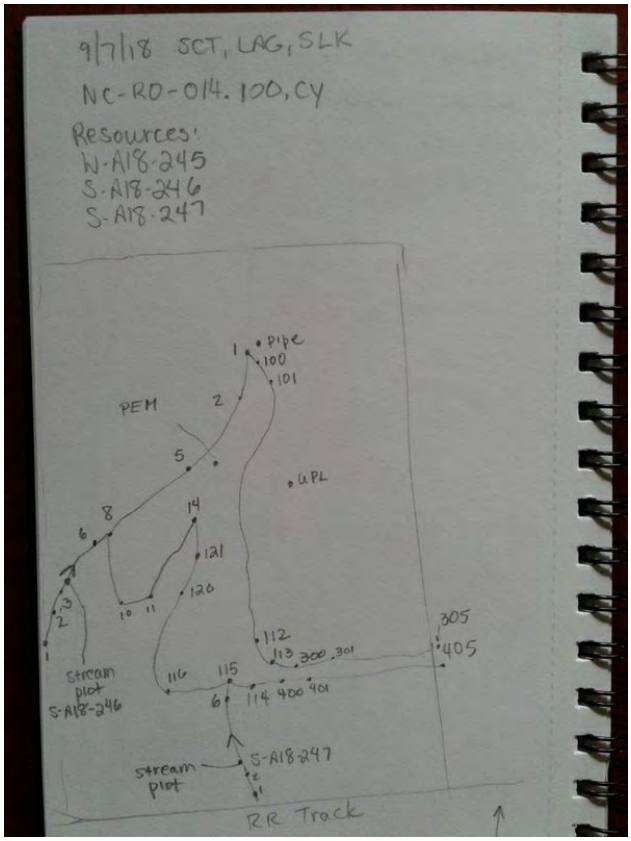
Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	7
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-248

Created	2018-09-07 13:49:58 UTC by Laura Giese
Updated	2018-09-07 22:33:06 UTC by Laura Giese
Location	36.518831, -79.7210607
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/07
Date2	180907

Resource Crew Info

Field Crew	Laura Giese, Simon King, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	248
Resource ID	S-A18-248
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	13.5
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	E

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	6.5

Stream Hydrology

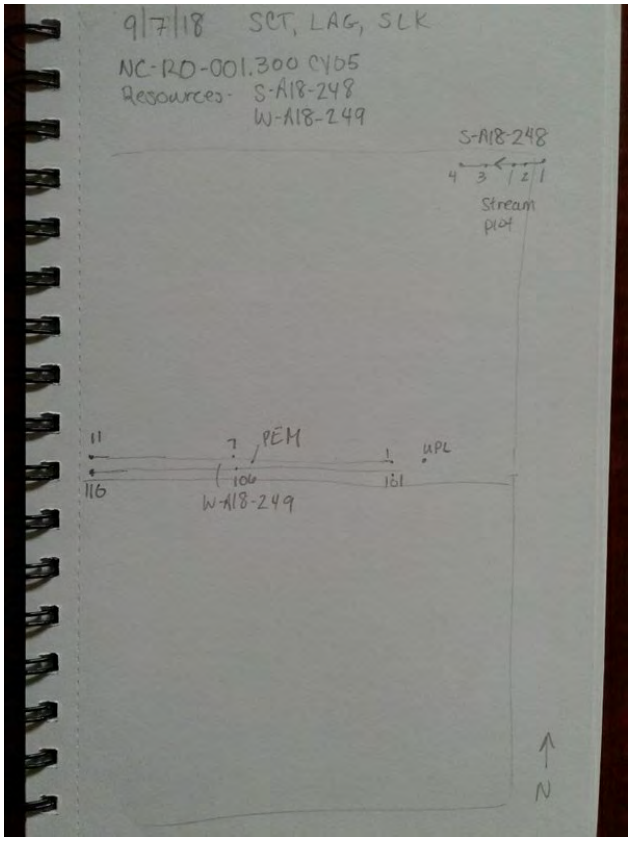
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	No
Stream Hydrology Total	1

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	W

Downstream Stream Photo	
Downstream photo direction	E
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-250

Created	2018-09-07 17:53:21 UTC by Laura Giese
Updated	2018-09-20 19:09:40 UTC by Susie Gifford (SBG)
Location	36.1389459, -79.3805345
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/07
Date2	180907

Resource Crew Info

Field Crew	Laura Giese, Simon King, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	250
Resource ID	S-A18-250
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	37
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	3
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	17.5

Stream Hydrology

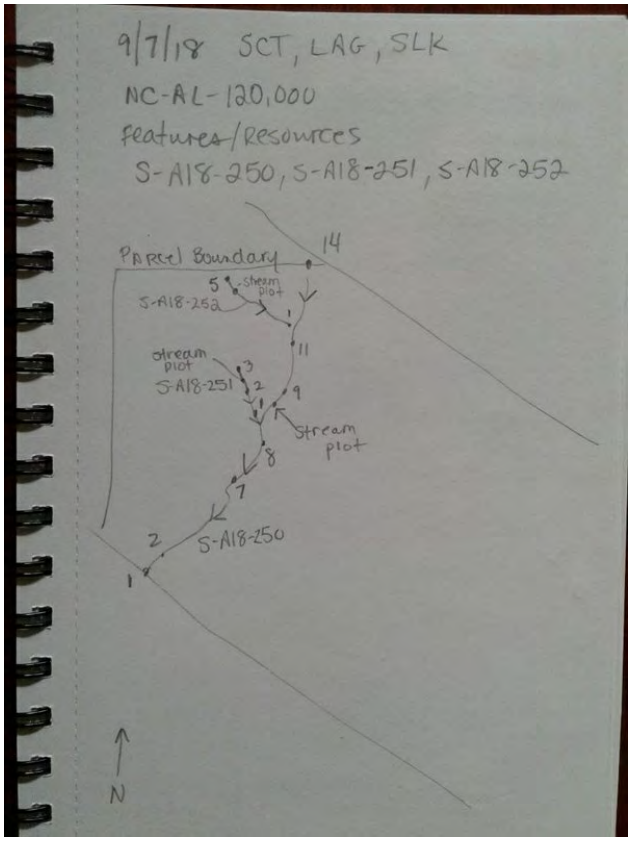
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Strong
Crayfish	Weak
Amphibians	Strong
Algae	Absent
Stream Biology Total	11.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-251

Created	2018-09-07 18:00:49 UTC by Laura Giese
Updated	2018-09-10 21:48:05 UTC by Laura Giese
Location	36.1390395, -79.3803725
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/07
Date2	180907

Resource Crew Info

Field Crew	Laura Giese, Simon King, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	251
Resource ID	S-A18-251
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	22
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Absent
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	6.5

Stream Hydrology

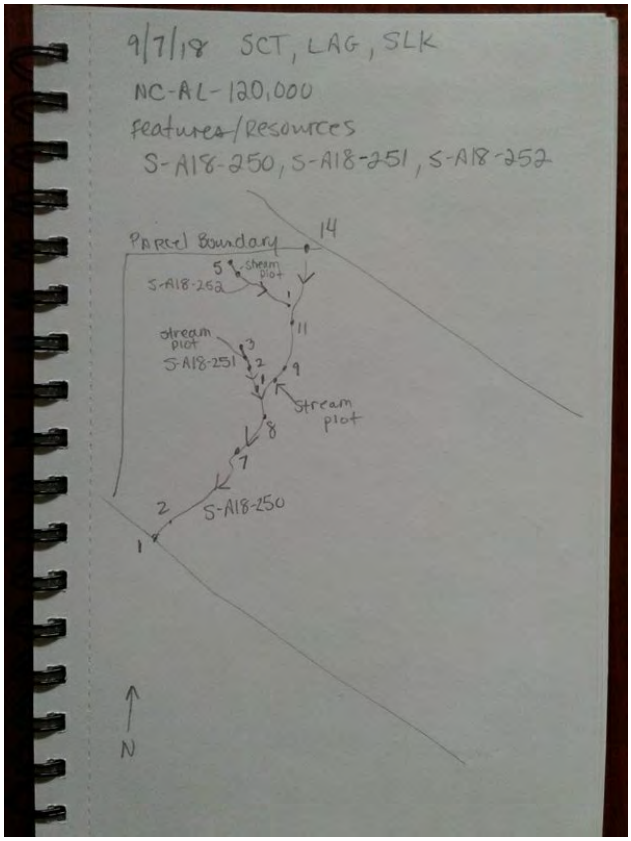
Presence of baseflow	Moderate
Iron oxidizing bacteria	Moderate
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Stream Biology Total	8
Notes	Short seepage channel
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-252

Created	2018-09-07 18:08:47 UTC by Laura Giese
Updated	2018-09-07 22:31:37 UTC by Laura Giese
Location	36.1392599, -79.3802933
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/07
Date2	180907

Resource Crew Info

Field Crew	Laura Giese, Simon King, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	252
Resource ID	S-A18-252
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	22.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	11.5

Stream Hydrology

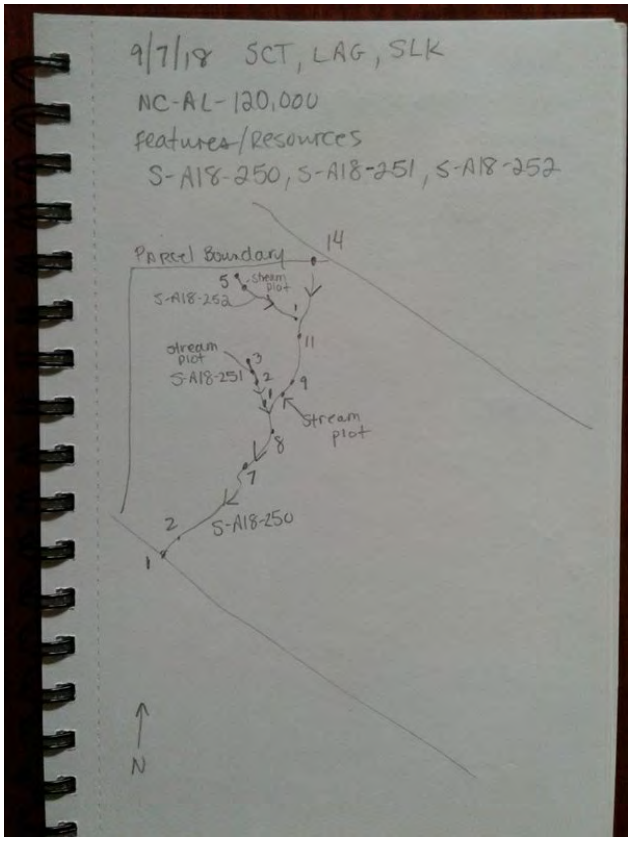
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	6.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	NE

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-253

Created	2018-09-10 15:37:02 UTC by Susie Gifford (SBG)
Updated	2018-09-10 21:51:27 UTC by Susie Gifford (SBG)
Location	36.1849742, -79.493087
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/10
Date2	180910

Resource Crew Info

Field Crew	Laura Giese, Susie Gifford
Lead Scientist's Initials	A18
Resource Series Number	253
Resource ID	S-A18-253
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	27.5
Calculated Stream Type	Intermittent
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	3
Bank to Bank (ft)	5
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Sand, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	12.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7

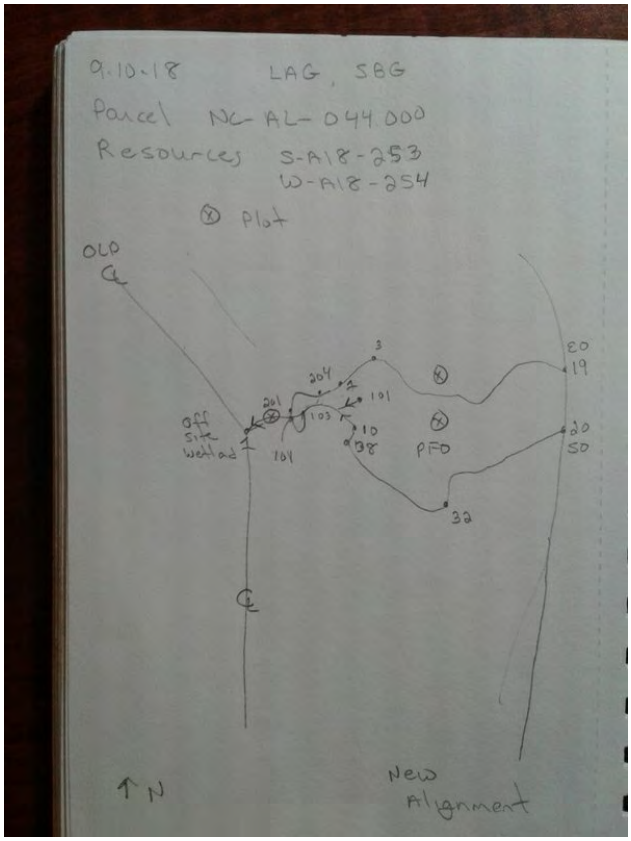
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Moderate
Amphibians	Moderate
Algae	Absent
Stream Biology Total	8
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	S
Additional Stream Photos	 upstream of 101 flag

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-256

Created	2018-09-11 17:28:58 UTC by Maggie Molnar
Updated	2018-09-12 01:14:01 UTC by Maggie Molnar
Location	36.3570349, -79.6137376
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/11
Date2	180911

Resource Crew Info

Field Crew	Maggie Molnar
Lead Scientist's Initials	A18
GPS Surveyor	Susie Gifford
GPS ID	NA
Resource Series Number	256
Resource ID	S-A18-256
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	22.75
Wildlife Observed	Frogs
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W
Channel condition	Marginal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	4
Bankfull Width (ft)	3

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Absent
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Weak
Natural valley	Strong
Second or greater order channel	No

Stream Geomorphology Total	10

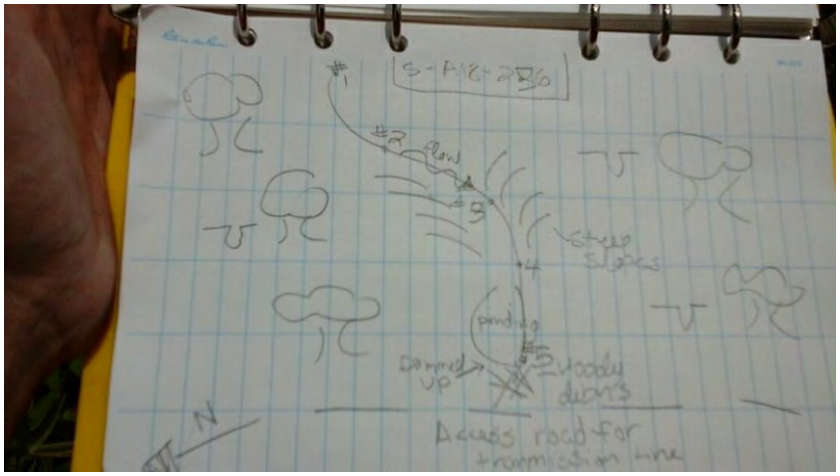
Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Weak
Leaf litter	Strong
Sediment on plants or debris	Moderate
Organic debris lines or piles	Strong
Soil-based evidence of high water table?	No
Stream Hydrology Total	4.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	8.25
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-118

Created	2018-08-23 12:32:56 UTC by Will Buetow
Updated	2018-08-23 18:32:02 UTC by Will Buetow
Location	36.3188646, -79.5932087
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/23
Date2	180823

Resource Crew Info

Field Crew	Will Burrow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	118
Resource ID	S-B18-118
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-118
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	22.5
Calculated Stream Type	Intermittent
Wildlife Observed	None
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	0
Bank to Bank (ft)	4
Bankfull Width (ft)	8

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Moderate
Headcuts	Moderate
Grade control	Weak
Natural valley	Strong
Second or greater order channel	Yes

Stream Geomorphology Total	17

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Moderate
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	2.5

Stream Biology

Fibrous roots in streambed	Strong
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	3
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	SW

Across Stream Photo 2	
Across stream photo direction 2	NE
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-119

Created	2018-08-23 13:01:21 UTC by Will Buetow
Updated	2018-08-23 18:33:31 UTC by Will Buetow
Location	36.3193412, -79.5935722
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/23
Date2	180823

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	119
Resource ID	S-B18-119
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-119
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	15
Calculated Stream Type	Ephemeral
Wildlife Observed	none

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	0
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Weak
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	11

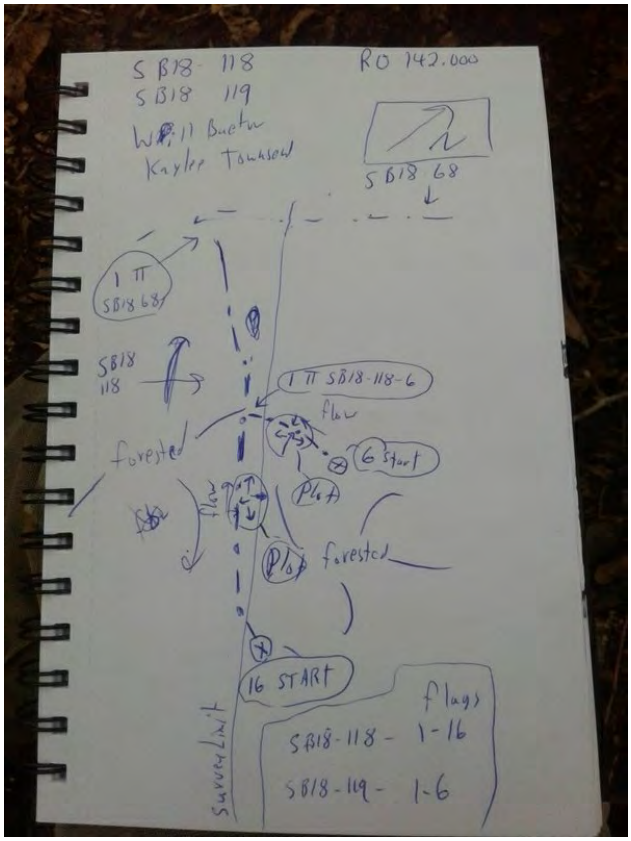
Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1

Stream Biology

Fibrous roots in streambed	Strong
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	3
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-120

Created	2018-08-25 13:15:12 UTC by Will Buetow
Updated	2018-08-25 13:47:54 UTC by Will Buetow
Location	36.479563, -79.6925896
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/25
Date2	180825

Resource Crew Info

Field Crew	will buetow, kaylee townsend
Lead Scientist's Initials	B18
GPS Surveyor	kaylee townsend
GPS ID	NA
Resource Series Number	120
Resource ID	S-B18-120
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	11.5
Calculated Stream Type	Ephemeral
Wildlife Observed	none

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	0
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Absent
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Weak
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	8

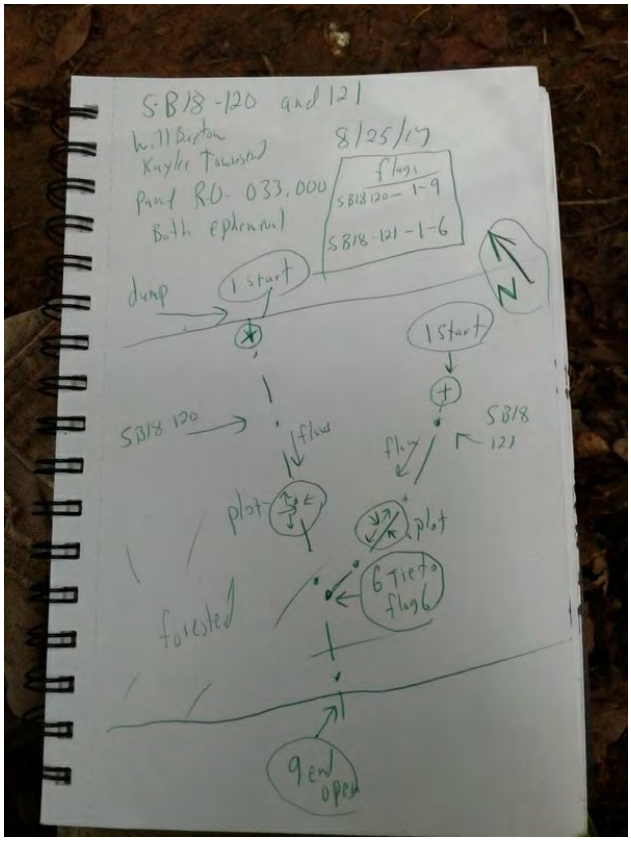
Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Moderate
Rooted upland plants in streambed	Moderate
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	2
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-121

Created	2018-08-25 13:47:57 UTC by Will Buetow
Updated	2018-08-25 13:55:16 UTC by Will Buetow
Location	36.4795436, -79.6925015
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/25
Date2	180825

Resource Crew Info

Field Crew	will buetow, kaylee townsend
Lead Scientist's Initials	B18
GPS Surveyor	kaylee townsend
GPS ID	NA
Resource Series Number	121
Resource ID	S-B18-121
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	11.5
Calculated Stream Type	Ephemeral
Wildlife Observed	none

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	0
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Absent
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Weak
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	8

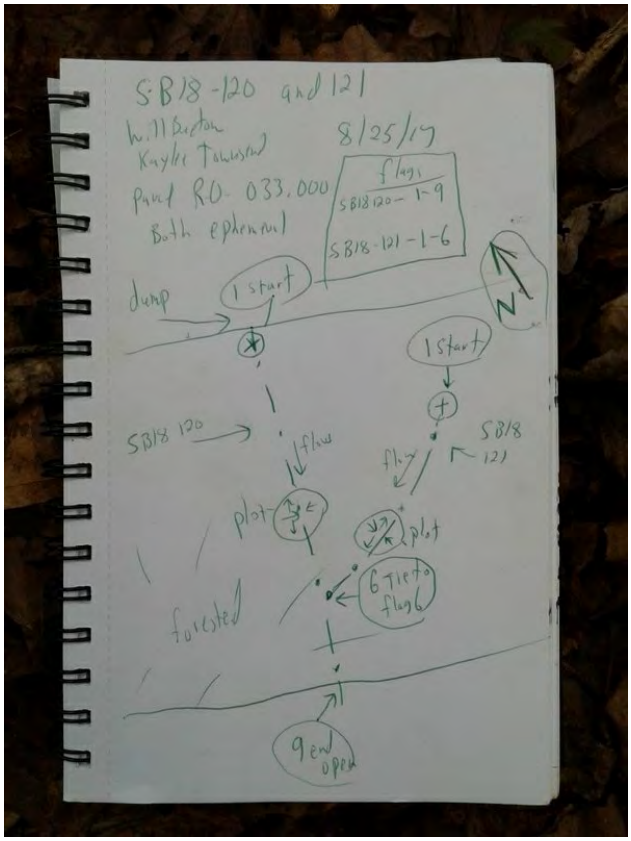
Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Strong
Rooted upland plants in streambed	Weak
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	2
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-122

Created	2018-08-28 21:18:49 UTC by Will Buetow
Updated	2018-09-21 11:54:02 UTC by Will Buetow
Location	36.0770807, -79.9620556
Status	Field Crew Reviewed
Client	NextEra
Project	MVP Southgate
Date	18/08/28
Date2	180828

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	122
Resource ID	S-B18-122
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	13.5
Calculated Stream Type	Ephemeral
Wildlife Observed	none

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	0
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

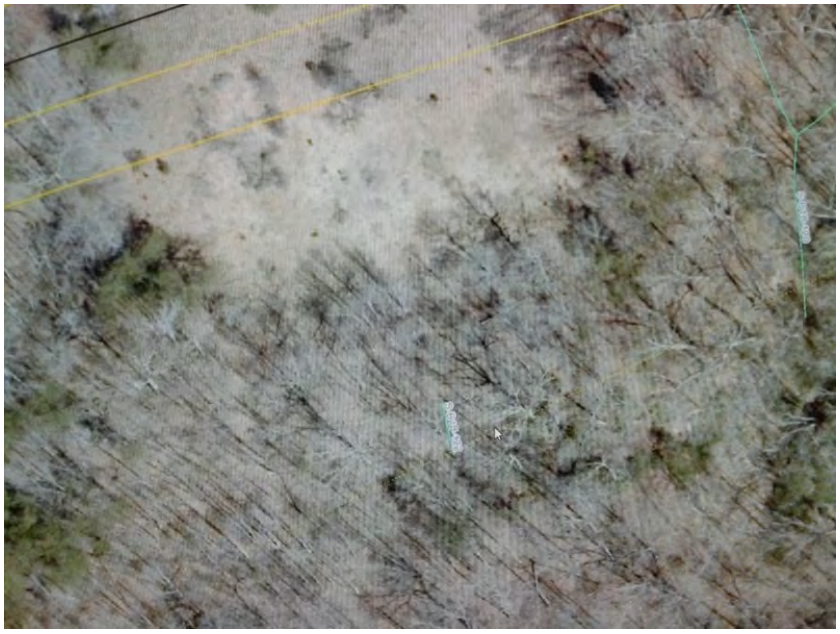
Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Absent
In-channel structure	Weak
Particle size of stream substrate	Absent
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	9.5

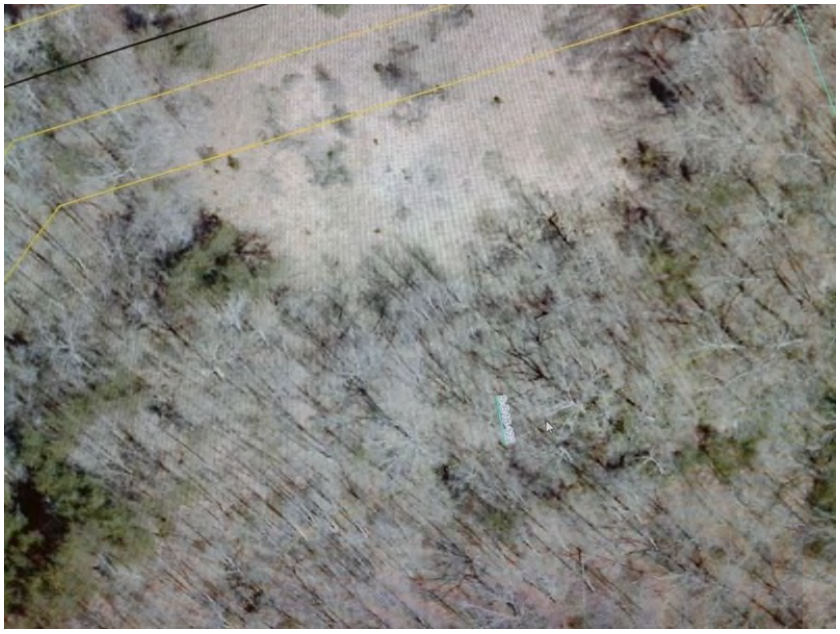
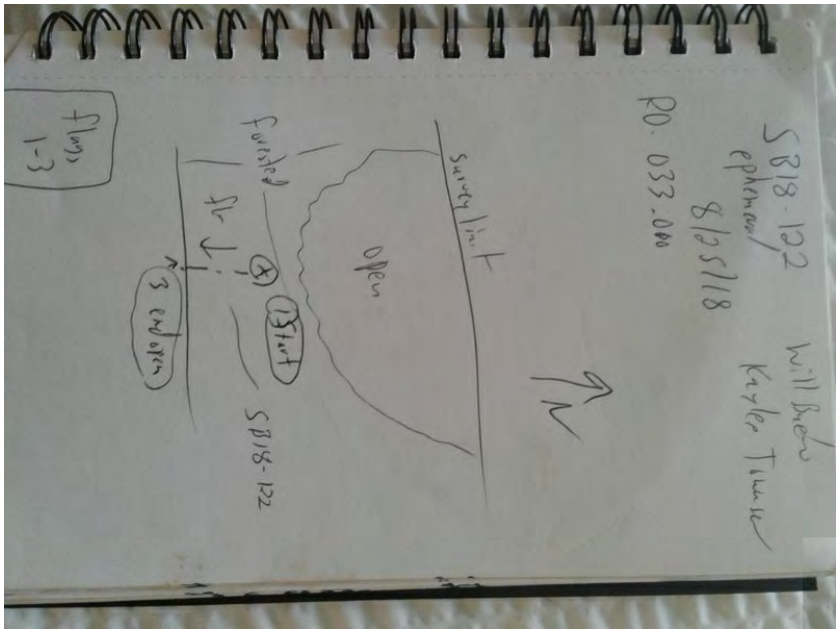
Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	2

Stream Biology

Fibrous roots in streambed	Strong
Rooted upland plants in streambed	Weak
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	2
Notes	Photos of stream not collected in the field.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-123

Created	2018-08-25 14:41:54 UTC by Will Buetow
Updated	2018-08-25 15:12:08 UTC by Will Buetow
Location	36.4783538, -79.6942561
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/25
Date2	180825

Resource Crew Info

Field Crew	will buetow, kaylee townsend
Lead Scientist's Initials	B18
GPS Surveyor	kaylee townsend
GPS ID	NA
Resource Series Number	123
Resource ID	S-B18-123
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	13.5
Calculated Stream Type	Ephemeral
Wildlife Observed	none

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	0
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Absent
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Weak
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	10

Stream Hydrology

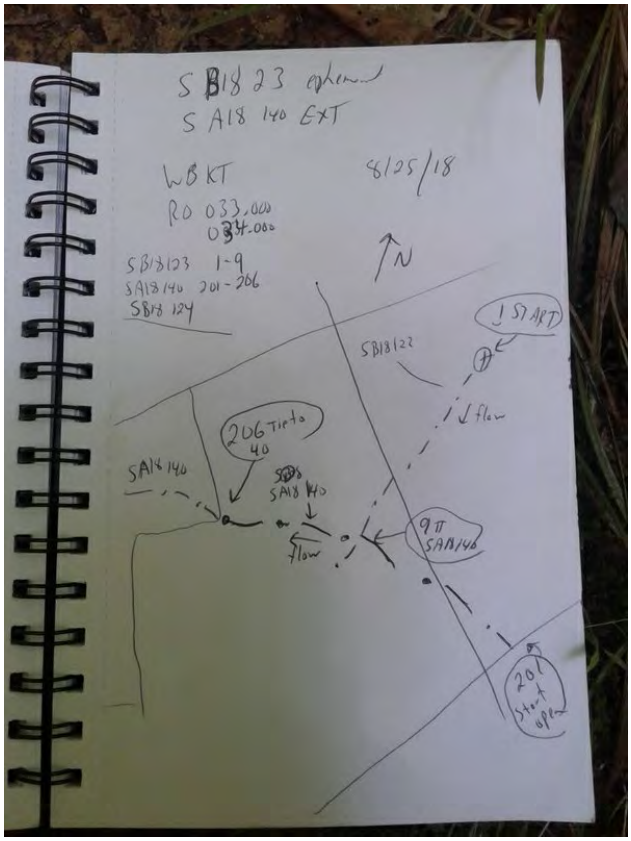
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Strong
Rooted upland plants in streambed	Weak
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	2
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-124

Created	2018-08-25 15:17:04 UTC by Will Buetow
Updated	2018-08-28 21:30:14 UTC by Will Buetow
Location	36.4779193, -79.6944047
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/25
Date2	180825

Resource Crew Info

Field Crew	will buetow, kaylee townsend
Lead Scientist's Initials	B18
GPS Surveyor	kaylee townsend
GPS ID	NA
Resource Series Number	124
Resource ID	S-B18-124
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	13.5
Calculated Stream Type	Ephemeral
Wildlife Observed	none

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	N

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	0
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1.5
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1.5
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Absent
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Weak
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	8

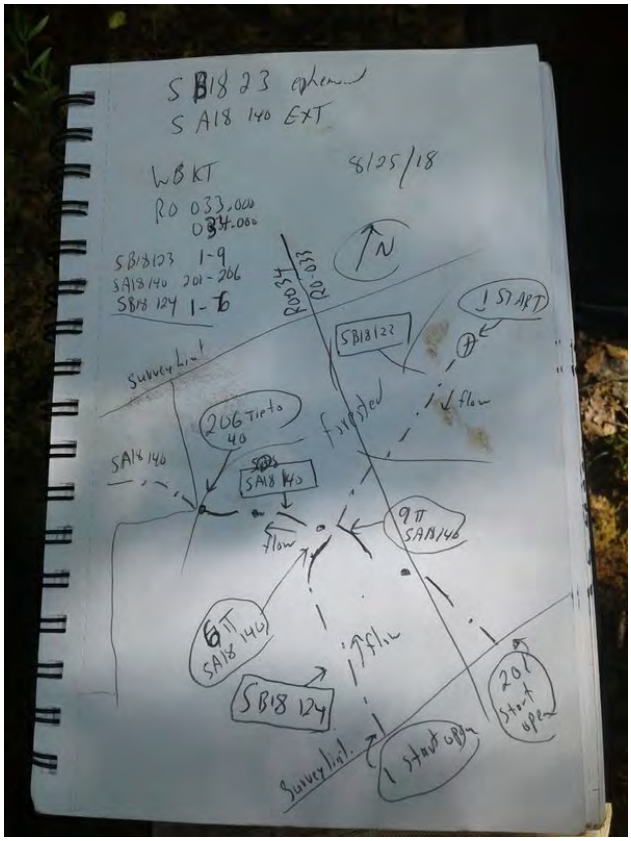
Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Moderate
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	4
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Sketch of Stream	
Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker	

S-B18-125

Created	2018-08-27 12:12:47 UTC by Will Buetow
Updated	2018-08-28 21:14:03 UTC by Will Buetow
Location	36.0546397, -79.364577
Status	Field Crew Reviewed
Client	NextEra
Project	MVP Southgate
Date	18/08/27
Date2	180827

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	125
Resource ID	S-B18-125
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-125
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	25
Calculated Stream Type	Intermittent
Wildlife Observed	Frogs

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	0
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	14

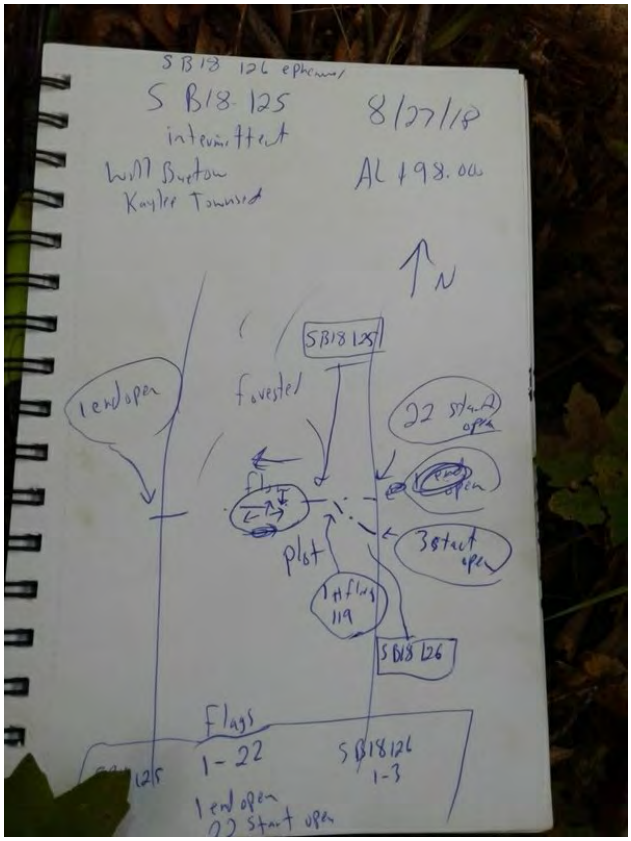
Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	6.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-126

Created	2018-08-27 12:37:15 UTC by Will Buetow
Updated	2018-08-28 21:32:53 UTC by Will Buetow
Location	36.0548549, -79.3640706
Status	Field Crew Reviewed
Client	NextEra
Project	MVP Southgate
Date	18/08/27
Date2	180827

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	126
Resource ID	S-B18-126
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	13.5
Calculated Stream Type	Ephemeral
Wildlife Observed	Turtles

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	0
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	11

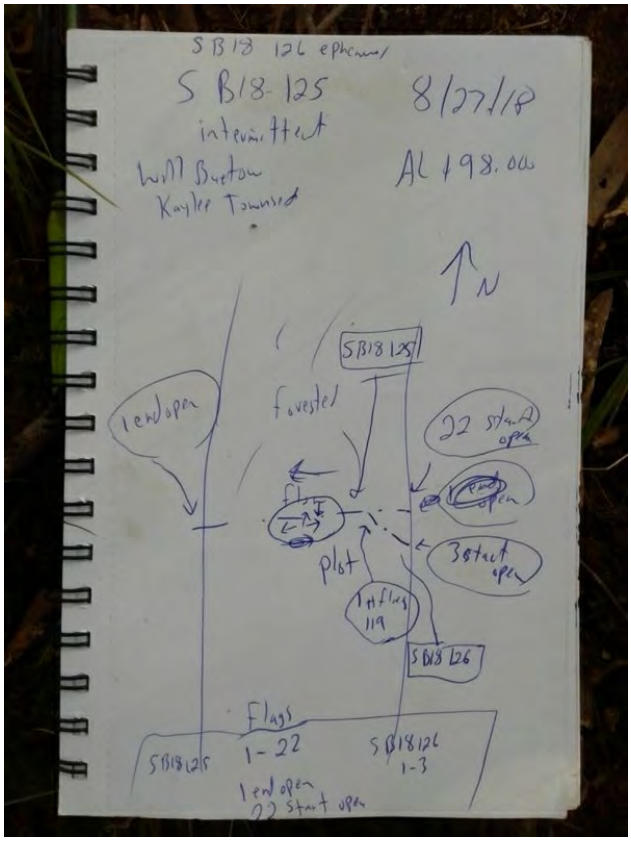
Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	No
Stream Hydrology Total	0.5

Stream Biology

Fibrous roots in streambed	Strong
Rooted upland plants in streambed	Weak
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	2
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	S

Across Stream Photo 2	
Across stream photo direction 2	N
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-127

Created	2018-08-27 14:24:43 UTC by Will Buetow
Updated	2018-09-20 19:22:06 UTC by Susie Gifford (SBG)
Location	36.0524169, -79.3650877
Status	Field Crew Reviewed
Client	NextEra
Project	MVP Southgate
Date	18/08/27
Date2	180827

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
Resource Series Number	127
Resource ID	S-B18-127
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	29.5
Calculated Stream Type	Intermittent
Wildlife Observed	Frogs

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	5
Average Water Width (ft)	0
Bank to Bank (ft)	6
Bankfull Width (ft)	6
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Weak
Second or greater order channel	Yes
Stream Geomorphology Total	17.5

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	6.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	S

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-128

Created	2018-08-27 13:06:44 UTC by Will Buetow
Updated	2018-08-27 14:43:40 UTC by Will Buetow
Location	36.0522142, -79.3652315
Status	Field Crew Reviewed
Client	NextEra
Project	MVP Southgate
Date	18/08/27
Date2	180827

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
Resource Series Number	128
Resource ID	S-B18-128
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	17
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	0
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2

Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Artificial

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	10.5

Stream Hydrology

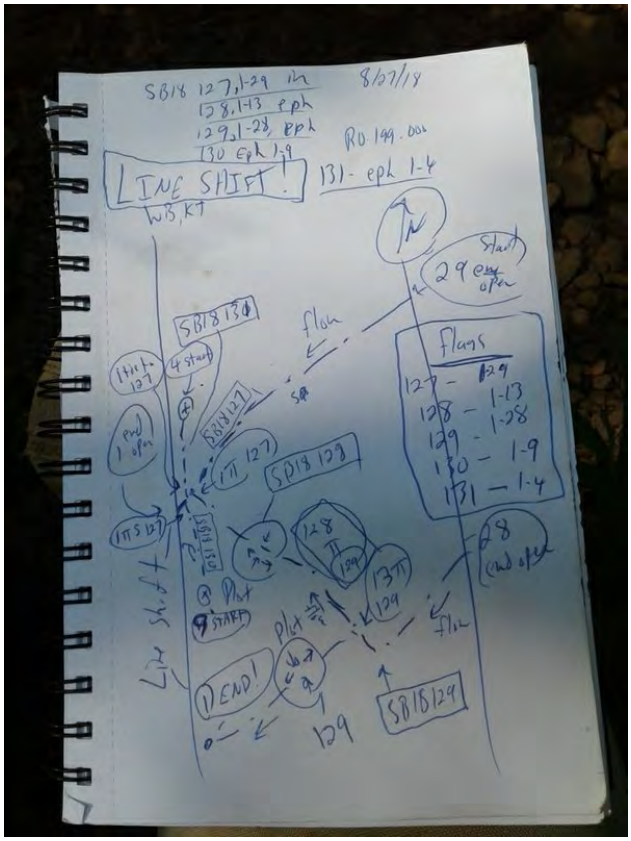
Presence of baseflow	Absent

Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4.5

Stream Biology

Fibrous roots in streambed	Strong
Rooted upland plants in streambed	Weak
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	2
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-129

Created	2018-08-27 13:25:42 UTC by Will Buetow
Updated	2018-08-27 14:44:40 UTC by Will Buetow
Location	36.0514816, -79.3650438
Status	Field Crew Reviewed
Client	NextEra
Project	MVP Southgate
Date	18/08/27
Date2	180827

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
Resource Series Number	129
Resource ID	S-B18-129
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	15.5
Calculated Stream Type	Ephemeral
Wildlife Observed	none

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	N

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	0
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Absent
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Weak
Second or greater order channel	Yes
Stream Geomorphology Total	11

Stream Hydrology

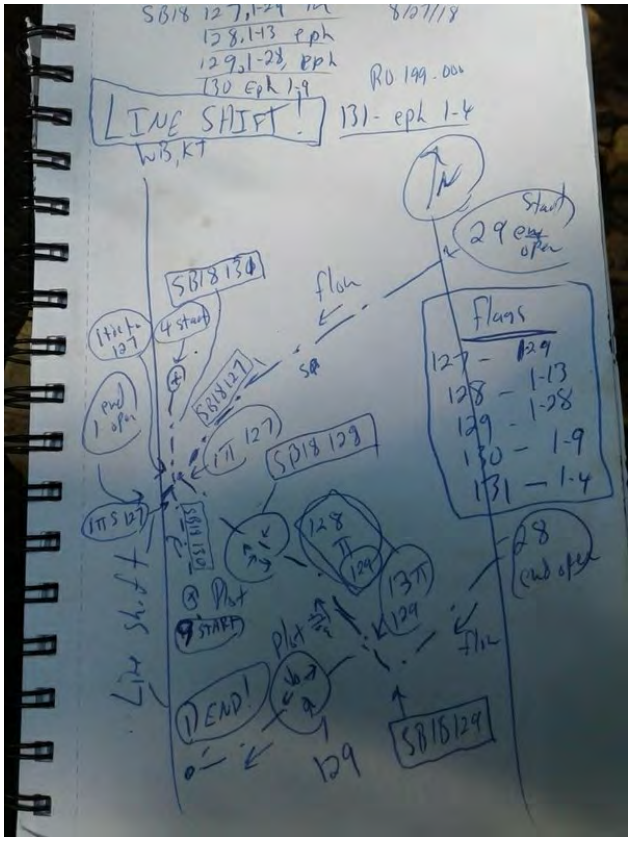
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Moderate
Rooted upland plants in streambed	Weak
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	3
Notes	Stream ends does not connect to other resource
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-130

Created	2018-08-27 13:59:54 UTC by Will Buetow
Updated	2018-08-27 14:47:15 UTC by Will Buetow
Location	36.0518267, -79.3655771
Status	Field Crew Reviewed
Client	NextEra
Project	MVP Southgate
Date	18/08/27
Date2	180827

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
Resource Series Number	130
Resource ID	S-B18-130
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	14
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	N

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	0
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2

Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Weak
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Absent
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Weak
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	6.5

Stream Hydrology

Presence of baseflow	Absent

Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4.5

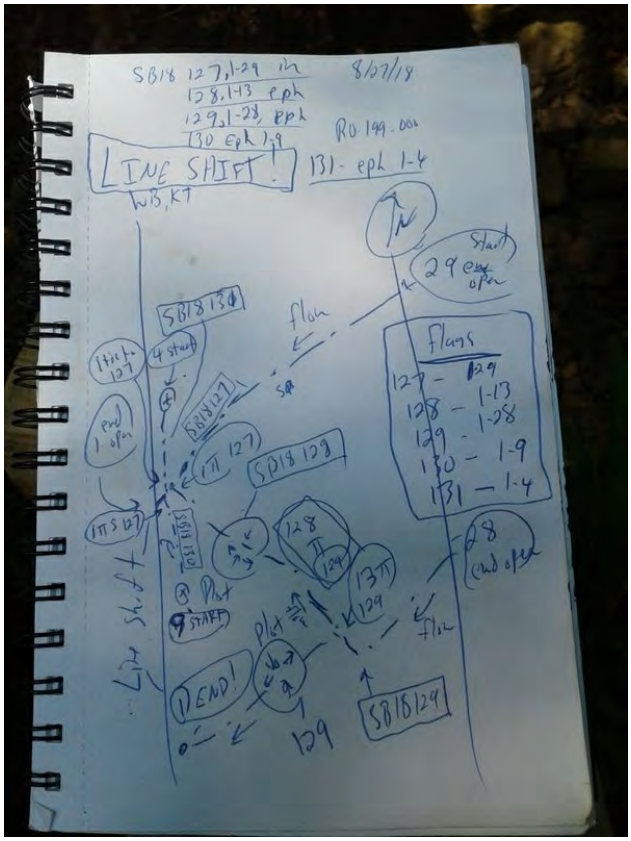
Stream Biology

Fibrous roots in streambed	Moderate
Rooted upland plants in streambed	Weak
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	3
Notes	Stream is in floodplain of larger river.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Additional Stream Photos	

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-131

Created	2018-08-27 14:12:56 UTC by Will Buetow
Updated	2018-08-29 15:28:23 UTC by Will Buetow
Location	36.0520944, -79.3656005
Status	Field Crew Reviewed
Client	NextEra
Project	MVP Southgate
Date	18/08/27
Date2	180827

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	131
Resource ID	S-B18-131
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	24
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	0
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Absent
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Strong
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	11.5

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Moderate
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Notes	Stream is in floodplain of large river
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Across Stream Photo 2	
Across stream photo direction 2	E
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-132

Created	2018-08-28 15:55:37 UTC by Will Buetow
Updated	2018-08-28 16:38:29 UTC by Will Buetow
Location	36.0938923, -79.3649197
Status	Field Crew Reviewed
Client	NextEra
Project	MVP Southgate
Date	18/08/28
Date2	180828

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	132
Resource ID	S-B18-132
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	39
Calculated Stream Type	Perennial
Wildlife Observed	fish, snapping turtle, stone fly

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	6
Average Water Width (ft)	5
Bank to Bank (ft)	9
Bankfull Width (ft)	9

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Cobble-Gravel, Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Strong
Depositional bars or benches	Moderate
Recent alluvial deposits	Moderate
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	23

Stream Hydrology

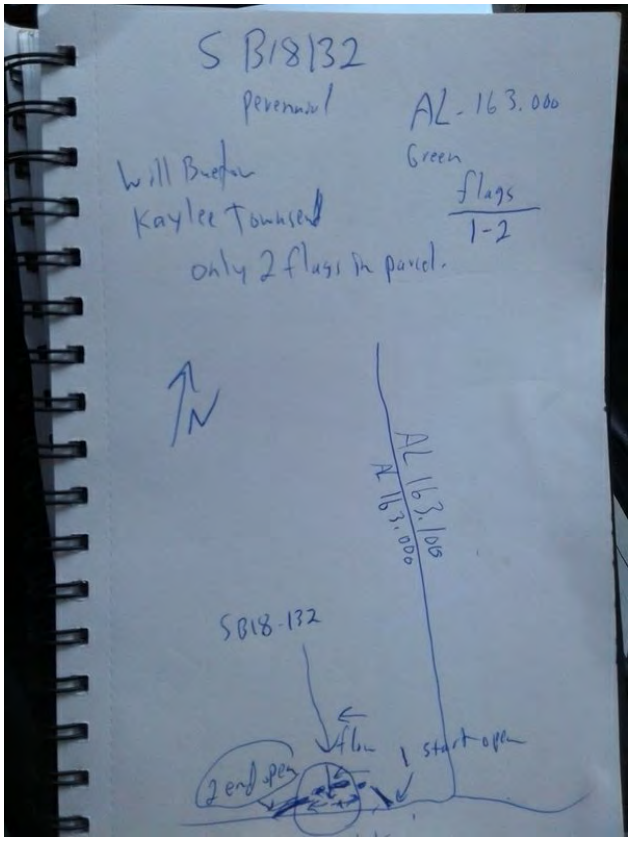
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Moderate
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Weak
Crayfish	Weak
Amphibians	Strong
Stream Biology Total	10.5
Notes	Nice perennial stream, only on parcel AL-163 for two flags.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	W

Downstream Stream Photo	
Downstream photo direction	E
Across Stream Photo 1	
Across stream photo direction 1	NW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-133

Created	2018-08-31 14:30:29 UTC by Will Buetow
Updated	2018-08-31 14:48:52 UTC by Will Buetow
Location	36.0833984, -79.3606346
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/31
Date2	180831

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	133
Resource ID	S-B18-133
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	40.5
Calculated Stream Type	Perennial
Wildlife Observed	Frogs

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	15
Average Water Width (ft)	8
Bank to Bank (ft)	25
Bankfull Width (ft)	25
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Moderate
Depositional bars or benches	Strong
Recent alluvial deposits	Strong
Headcuts	Weak
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	23.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Stream Biology Total	8
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	SE

Across Stream Photo 2

Across stream photo direction 2	NW

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-134

Created	2018-08-31 14:54:59 UTC by Will Buetow
Updated	2018-08-31 15:36:17 UTC by Will Buetow
Location	36.0836432, -79.3605126
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/31
Date2	180831

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	134
Resource ID	S-B18-134
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	24
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Weak
Second or greater order channel	Yes
Stream Geomorphology Total	13.5

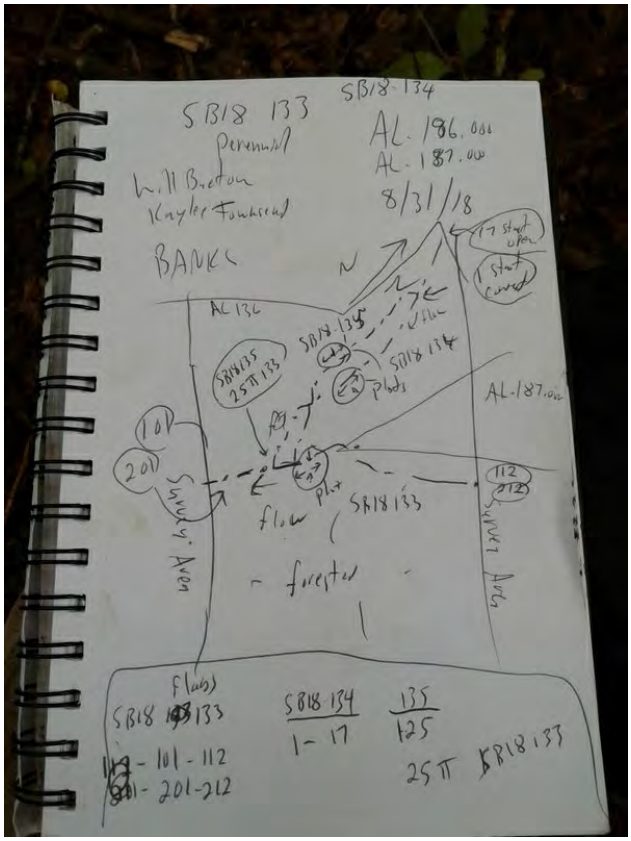
Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5.5

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-135

Created	2018-08-31 15:23:20 UTC by Will Buetow
Updated	2018-08-31 15:35:30 UTC by Will Buetow
Location	36.0843047, -79.3605792
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/31
Date2	180831

Resource Crew Info

Field Crew	Will Buetow, Kaylee Townsend
Lead Scientist's Initials	B18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	135
Resource ID	S-B18-135
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	16.5
Calculated Stream Type	Ephemeral
Wildlife Observed	none

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	0
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Weak
Sinuosity of channel along thalweg	Weak
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	9.5

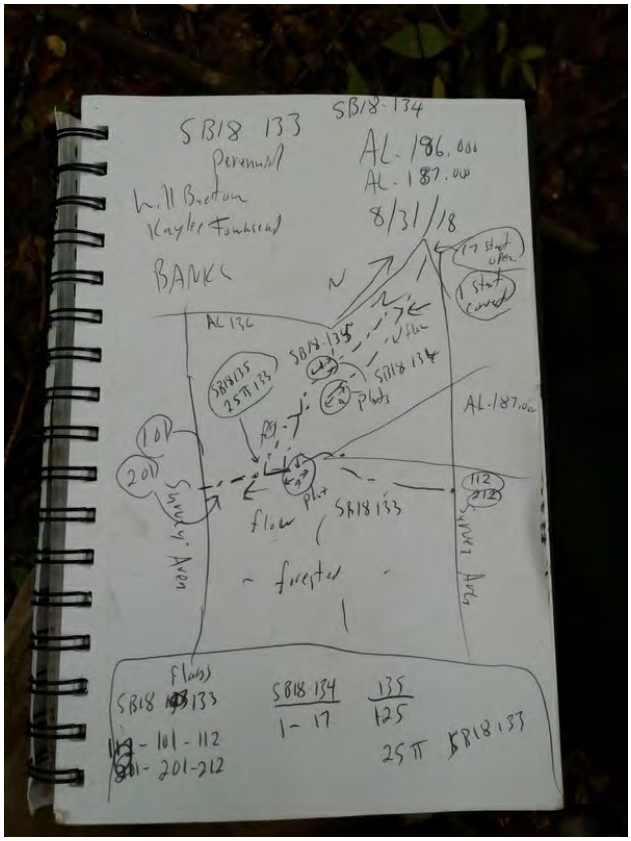
Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5

Stream Biology

Fibrous roots in streambed	Moderate
Rooted upland plants in streambed	Moderate
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	2
Notes	Ephemeral stream parallels S-B18-134.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-137

Created	2018-09-04 11:02:36 EDT by Will Buetow
Updated	2018-09-19 08:56:14 EDT by Nathan Renaudin
Location	36.1513464, -79.4089016
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/04
Date2	180904

Resource Crew Info

Field Crew	Nate Renaudin, Susie Thebert
Lead Scientist's Initials	B18
GPS Surveyor	Susie Thebert
GPS ID	NA
Resource Series Number	137
Resource ID	S-B18-137
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	20.25
Calculated Stream Type	Intermittent
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	W
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	3

Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Weak
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Moderate
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Weak

Second or greater order channel	No
Stream Geomorphology Total	7

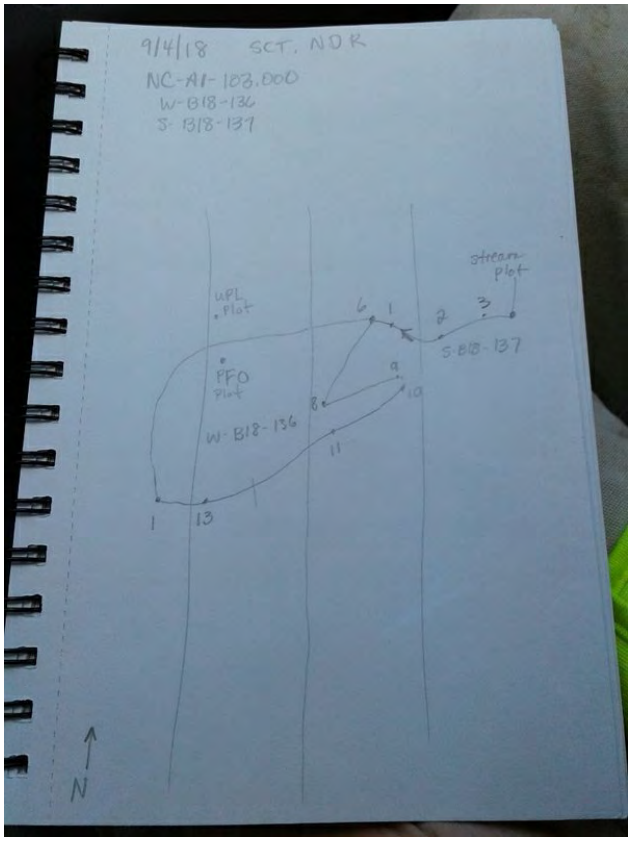
Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Weak
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	6.75
Regulatory Status	Corps Jurisdictional
Notes	Stream connects to wetland
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	S

Across Stream Photo 2	
Across stream photo direction 2	N
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-138

Created	2018-09-04 11:36:22 EDT by Will Buetow
Updated	2018-09-19 08:59:00 EDT by Nathan Renaudin
Location	36.1494008, -79.4090689
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/04
Date2	180904

Resource Crew Info

Field Crew	Nate Renaudin, Susie Thebert
Lead Scientist's Initials	B18
GPS Surveyor	Susie Thebert
GPS ID	NA
Resource Series Number	138
Resource ID	S-B18-138
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	30.75
Calculated Stream Type	Perennial
Wildlife Observed	Frogs
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	W
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	1
Bank to Bank (ft)	4

Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.75
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.75

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.75
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.75

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Moderate
Natural valley	Weak

Second or greater order channel	Yes
Stream Geomorphology Total	17.5

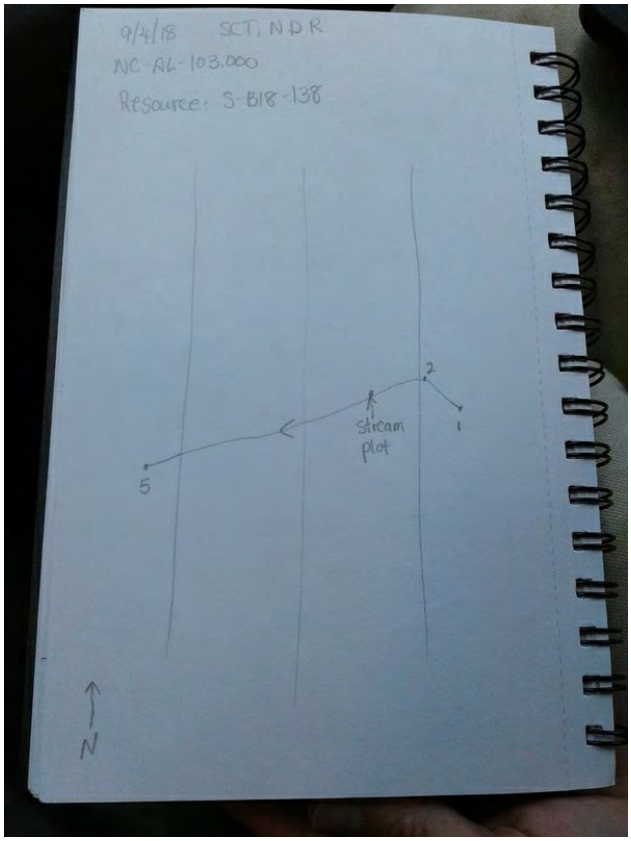
Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Moderate
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	7.25
Regulatory Status	Corps Jurisdictional
Notes	Stream connects to wetland
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	S

Across Stream Photo 2	
Across stream photo direction 2	N
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-142

Created	2018-09-11 15:43:07 UTC by Thomas Errico
Updated	2018-09-13 14:48:34 UTC by Karla Fortier
Location	36.2136026, -79.5162355
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/11
Date2	180911

Resource Crew Info

Field Crew	Tom Errico
Lead Scientist's Initials	THE
GPS Surveyor	Susan Thebert
Resource Series Number	142
Resource ID	S-B18-142
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-142
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	19
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W
Channel condition	Marginal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Weak
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	7.5

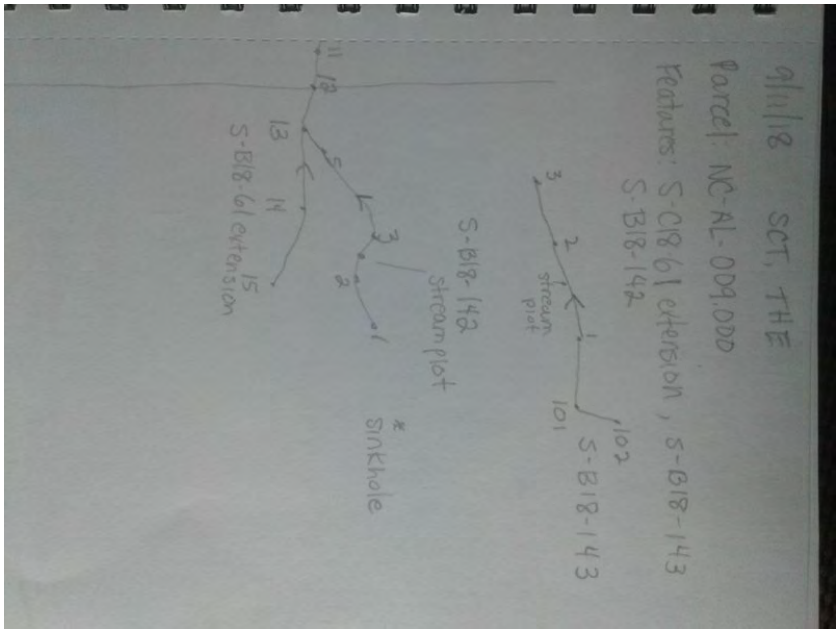
Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	N
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-143

Created	2018-09-11 15:58:40 UTC by Thomas Errico
Updated	2018-09-13 14:48:58 UTC by Karla Fortier
Location	36.2136983, -79.5162973
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/11
Date2	180911

Resource Crew Info

Field Crew	Tom Errico
Lead Scientist's Initials	THE
GPS Surveyor	Susan Thebert
Resource Series Number	143
Resource ID	S-B18-143
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-143
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	17
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W
Channel condition	Marginal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	1
Bankfull Width (ft)	1

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Weak
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	5.5

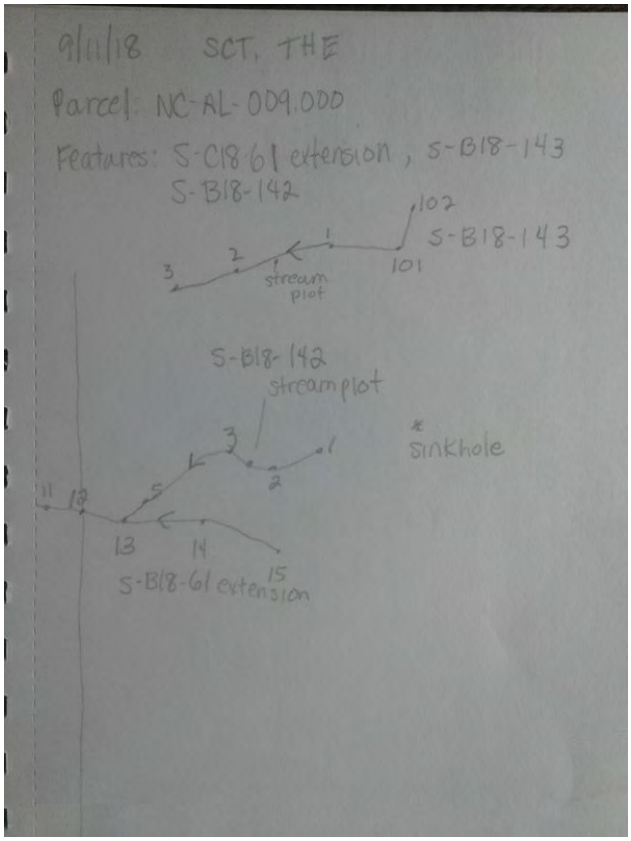
Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	S

Across Stream Photo 2	
Across stream photo direction 2	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-202

Created	2018-08-24 17:48:42 UTC by Will Buetow
Updated	2018-09-06 19:37:39 UTC by Joseph Roy
Location	36.6420623, -79.5290332
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/08/24
Date2	180824

Resource Crew Info

Field Crew	will buetow, kaylee townsend
Lead Scientist's Initials	B18
GPS Surveyor	kaylee townsend
GPS ID	NA
Resource Series Number	202
Resource ID	S-B18-202
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-202
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	39
Calculated Stream Type	Perennial
Wildlife Observed	Frogs

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NW
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	6
Average Water Width (ft)	5
Bank to Bank (ft)	8

Bankfull Width (ft)	8
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	1.1
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Moderate
Depositional bars or benches	Moderate
Recent alluvial deposits	Strong
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate

Second or greater order channel	Yes
Stream Geomorphology Total	21.5

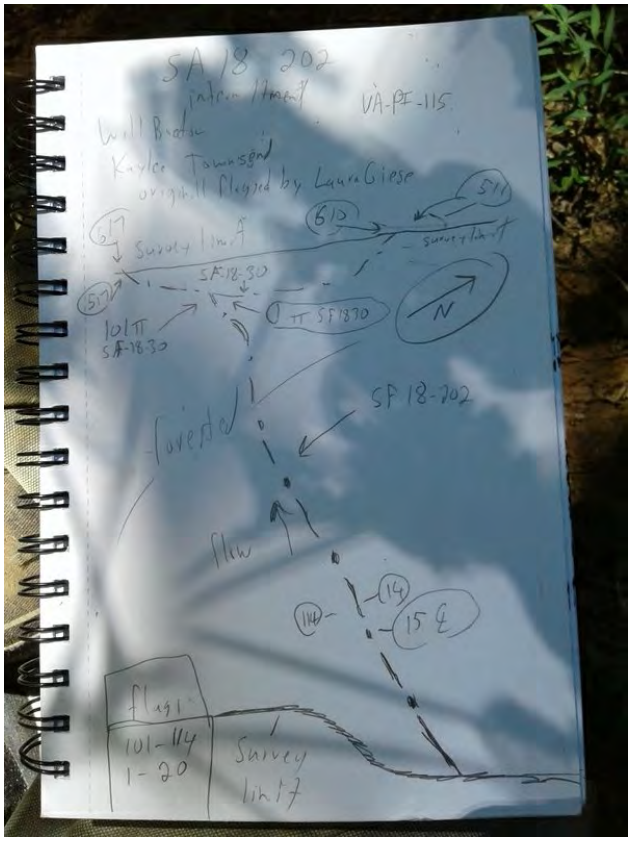
Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Weak
Leaf litter	Absent
Sediment on plants or debris	Moderate
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	7.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	SW

Across Stream Photo 2	
Across stream photo direction 2	NE
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-C18-85

Created	2018-08-06 14:26:55 UTC by Simon King
Updated	2018-09-06 14:06:54 UTC by Joseph Roy
Location	36.701454, -79.4733166
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/08/06
Date2	180806

Resource Crew Info

Field Crew	Don Lockwood
Lead Scientist's Initials	C18
GPS Surveyor	Simon King
Resource Series Number	85
Resource ID	S-C18-85
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	36.5
Calculated Stream Type	Perennial
Wildlife Observed	Frogs

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SE
Channel condition	Optimal
In stream habitat	Optimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.2
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0.14
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.34

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	1.2
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.2

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Strong
Particle size of stream substrate	Moderate
Active or relict floodplain	Moderate
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	17

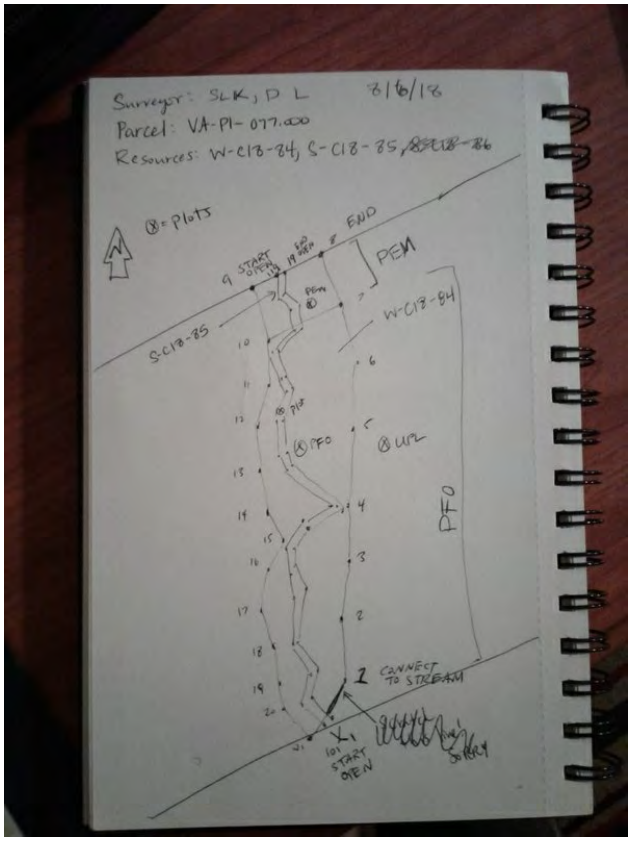
Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Weak
Leaf litter	Absent
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Moderate
Amphibians	Strong
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	10.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	NE

Across Stream Photo 2	
Across stream photo direction 2	SW
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-C18-86

Created	2018-08-06 16:17:47 UTC by Don Lockwood
Updated	2018-09-06 14:12:38 UTC by Joseph Roy
Location	36.6983155, -79.4761626
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/08/06
Date2	180806

Resource Crew Info

Field Crew	Simon King, Donald Lockwood
Lead Scientist's Initials	C18
GPS Surveyor	Simon King
Resource Series Number	86
Resource ID	S-C18-86
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	42
Calculated Stream Type	Perennial
Wildlife Observed	Fish
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SE
Channel condition	Suboptimal
In stream habitat	Optimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.04
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0.18
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.22

Stream Measurements

OHWM Width (ft)	15
Average Water Width (ft)	5
Bank to Bank (ft)	20
Bankfull Width (ft)	20

Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	5
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.2
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.15
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.35

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Cobble-Gravel, Sand, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.2
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.15
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.35

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Strong
Particle size of stream substrate	Strong
Active or relict floodplain	Moderate
Depositional bars or benches	Strong
Recent alluvial deposits	Strong
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	Yes

Stream Geomorphology Total	24.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Strong
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Moderate
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Strong
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-C18-88

Created	2018-09-12 17:02:18 UTC by Simon King
Updated	2018-09-12 17:13:04 UTC by Katelyn Wheeler
Location	36.551067, -79.616049
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/09/12
Date2	180912

Resource Crew Info

Field Crew	Don Lockwood
Lead Scientist's Initials	C18
GPS Surveyor	Simon King
Resource Series Number	88
Resource ID	S-C18-88
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	28.25
Calculated Stream Type	Intermittent
Wildlife Observed	Frogs

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NE
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0.9
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0.9

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Sand, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

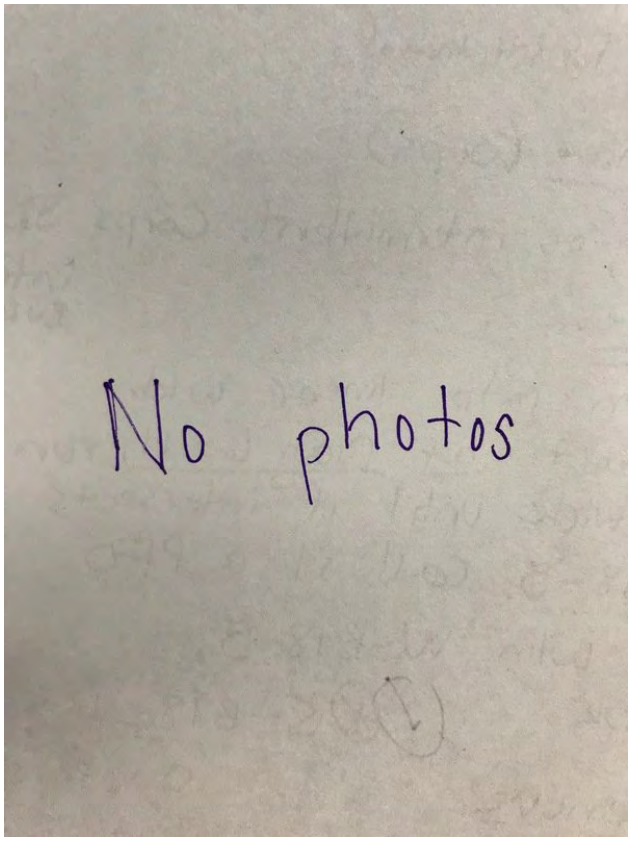
Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Moderate
Depositional bars or benches	Weak
Recent alluvial deposits	Moderate
Headcuts	Absent
Grade control	Moderate
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	13.5

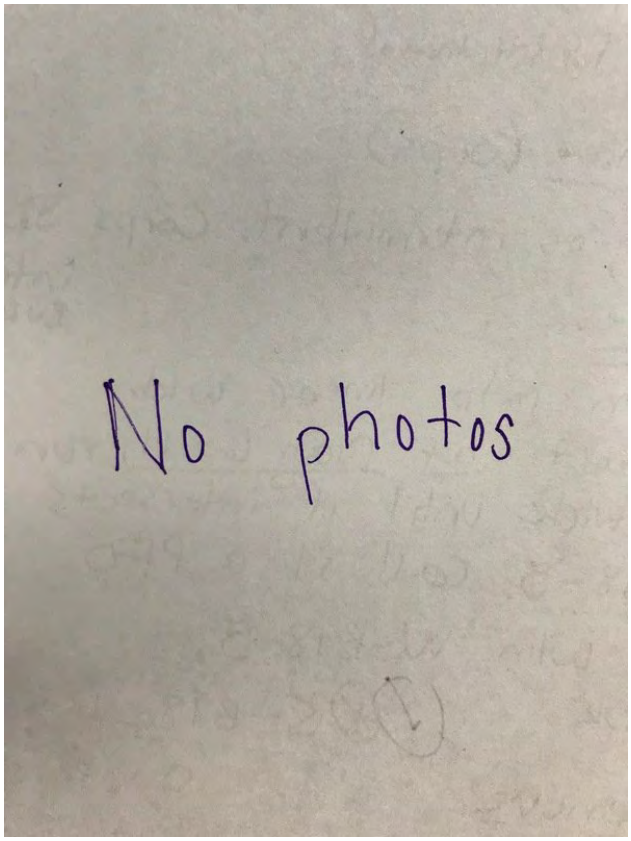
Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

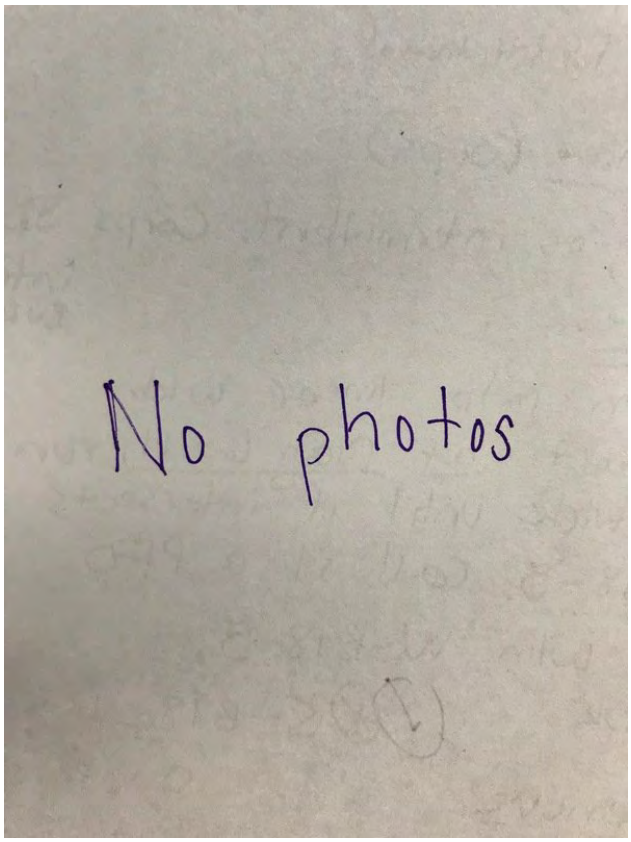
Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Weak
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Weak
Wetland plants in streambed	FACW
Stream Biology Total	7.25
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	

Downstream Stream Photo



Across Stream Photo 1



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-C18-89

Created	2018-08-07 15:26:33 UTC by Don Lockwood
Updated	2018-09-06 15:31:17 UTC by Joseph Roy
Location	36.5518292, -79.6213728
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/08/07
Date2	180807

Resource Crew Info

Field Crew	Simon King, Donald Lockwood
Lead Scientist's Initials	C18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	89
Resource ID	S-C18-89
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	37.5
Calculated Stream Type	Perennial
Wildlife Observed	Salamanders
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SE
Channel condition	Optimal
In stream habitat	Optimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.2
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0.22
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.42

Stream Measurements

OHWM Width (ft)	6
Average Water Width (ft)	6
Bank to Bank (ft)	15

Bankfull Width (ft)	20
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Cobble-Gravel, Sand

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.2
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.15
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.35

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	High
Right Bank Substrate	Cobble-Gravel, Sand

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.2
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.15
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.35

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Strong
Particle size of stream substrate	Strong
Active or relict floodplain	Moderate
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Absent
Natural valley	Strong

Second or greater order channel	Yes
Stream Geomorphology Total	19.5

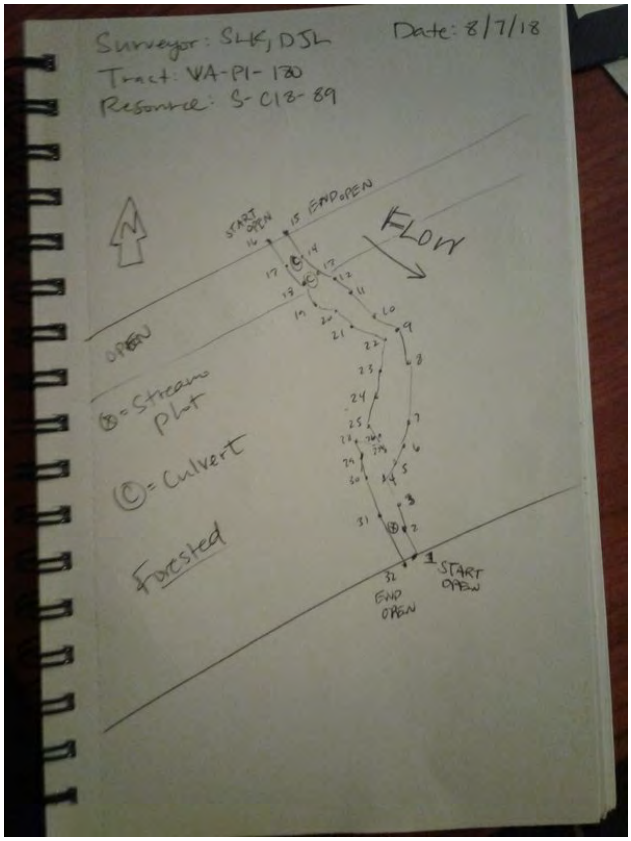
Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Weak
Macrobenthos	Moderate
Aquatic mullusks	Absent
Crayfish	Moderate
Amphibians	Strong
Algae	Absent
Stream Biology Total	9.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	S

Across Stream Photo 2	
Across stream photo direction 2	N
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-C18-90

Created	2018-08-07 17:47:26 UTC by Simon King
Updated	2018-09-06 15:31:43 UTC by Joseph Roy
Location	36.5459248, -79.6282403
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/08/07
Date2	180807

Resource Crew Info

Field Crew	Simon King, Donald Lockwood
Lead Scientist's Initials	C18
GPS Surveyor	Simon King
Resource Series Number	90
Resource ID	S-C18-90
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	40.5
Calculated Stream Type	Perennial
Wildlife Observed	Fish
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SE
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.04
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0.14
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.1800000000000002

Stream Measurements

OHWM Width (ft)	8
Average Water Width (ft)	5
Bank to Bank (ft)	10
Bankfull Width (ft)	10

Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0.96
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.15
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1099999999999999

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Sand, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0.96
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.15
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1099999999999999

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Strong
Depositional bars or benches	Moderate
Recent alluvial deposits	Strong
Headcuts	Absent
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes

Stream Geomorphology Total	22

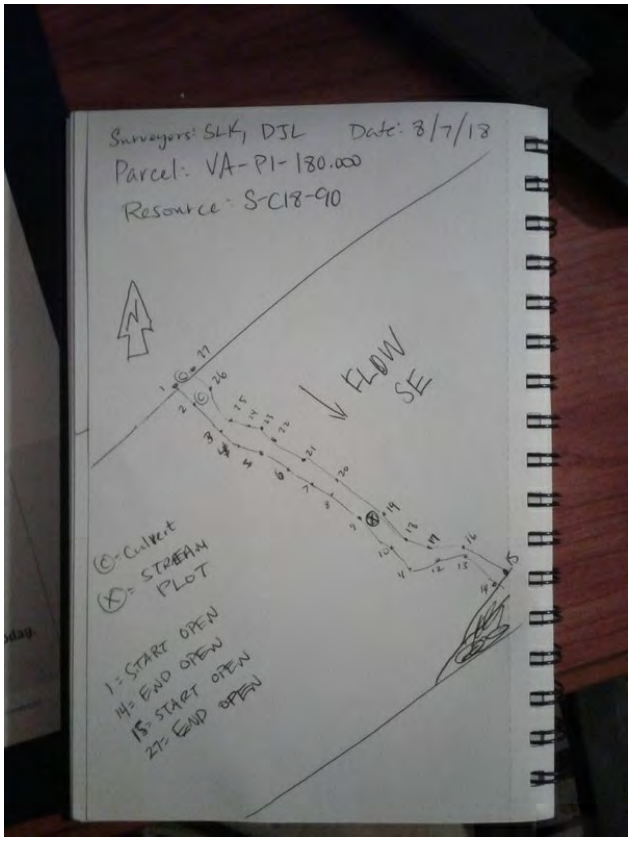
Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Moderate
Organic debris lines or piles	Strong
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Weak
Macrobenthos	Weak
Fish	Moderate
Crayfish	Moderate
Amphibians	Strong
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	9.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-C18-92

Created	2018-08-07 20:08:46 UTC by Simon King
Updated	2018-09-06 15:32:01 UTC by Joseph Roy
Location	36.5443052, -79.6299226
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/08/07
Date2	180807

Resource Crew Info

Field Crew	Simon King, Donald Lockwood
Lead Scientist's Initials	C18
GPS Surveyor	Simon King
Resource Series Number	92
Resource ID	S-C18-92
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	27.75
Calculated Stream Type	Intermittent
Wildlife Observed	Frogs
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	E
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0.9
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0.9

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	3
Bank to Bank (ft)	4
Bankfull Width (ft)	4

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	0.5
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Mud or muck, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0.88
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.15
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.03

Right Bank

Right Bank Height (feet)	0.5
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Mud or muck, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0.88
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.15
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.03

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Moderate
Depositional bars or benches	Moderate
Recent alluvial deposits	Moderate
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No

Stream Geomorphology Total	13.5

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	5

Stream Biology

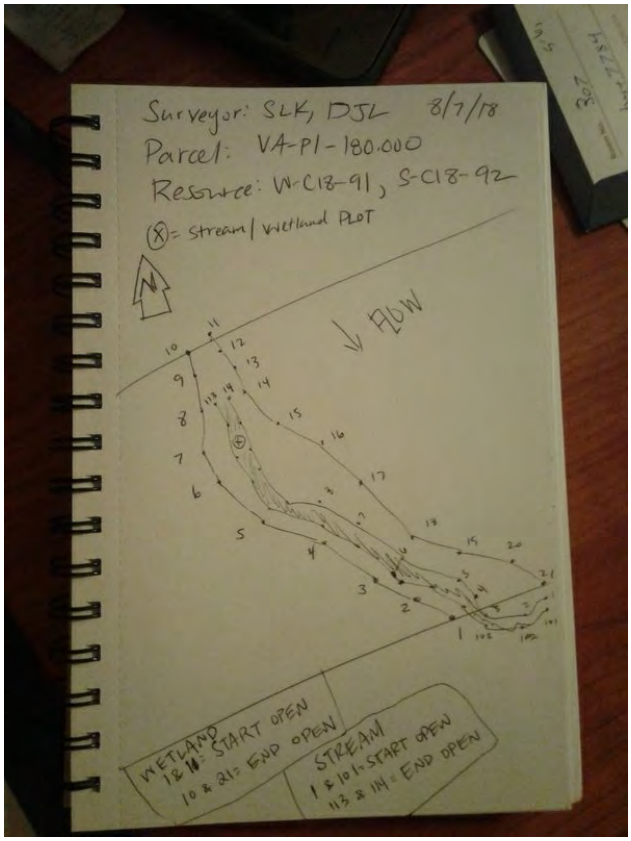
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	9.25
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	W

Downstream Stream Photo	
Downstream photo direction	E
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2

Across stream photo direction 2	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-C18-94

Created	2018-08-08 14:31:52 UTC by Simon King
Updated	2018-09-07 13:22:54 UTC by Katelyn Wheeler
Location	36.5901949, -79.5831403
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/08/08
Date2	180808

Resource Crew Info

Field Crew	Simon King, Donald Lockwood
Lead Scientist's Initials	C18
GPS Surveyor	Simon King
Resource Series Number	94
Resource ID	S-C18-94
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	22
Calculated Stream Type	Intermittent
Wildlife Observed	Frogs
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW
Channel condition	Suboptimal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	0.5
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	1.2
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.2

Right Bank

Right Bank Height (feet)	0.5
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Sand, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	1.2
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.2

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Absent
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	No

Stream Geomorphology Total	10.5

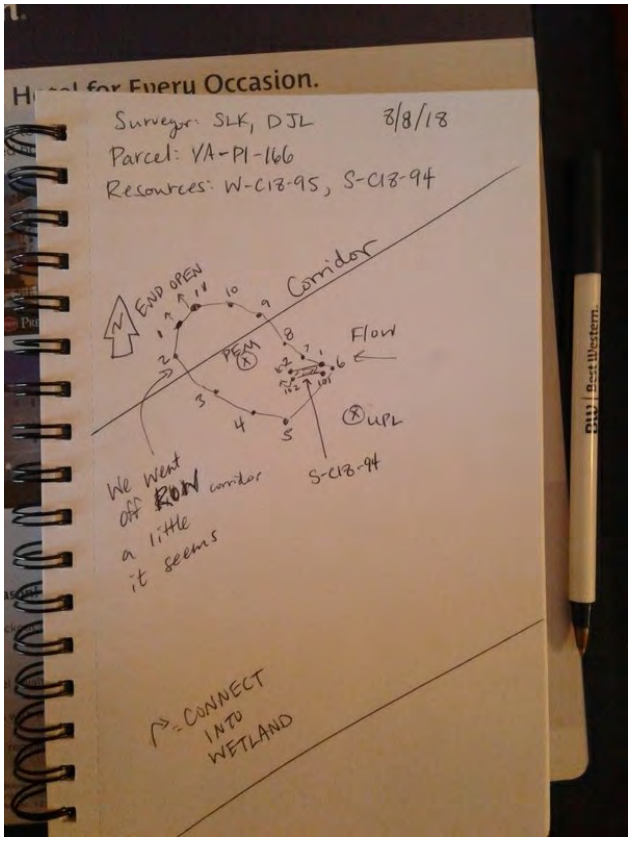
Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Moderate
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	5.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Weak
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Weak
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Ground water seepage stream into wetland W-C18-95
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	S

Across Stream Photo 2	
Across stream photo direction 2	N
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-187

Created	2018-07-25 12:41:17 UTC by Laura Giese
Updated	2018-09-06 14:13:35 UTC by Joseph Roy
Location	36.6623878, -79.5115718
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/07/25
Date2	180725

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
Resource Series Number	187
Resource ID	WB-A18-187
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-187
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined
Wildlife Observed	Frogs

Stream Conditions

Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	170
Average Water Width (ft)	170
Bank to Bank (ft)	170
Probed Stream Depth	> 36 inches

Left Bank

Left Bank Height (feet)	5
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

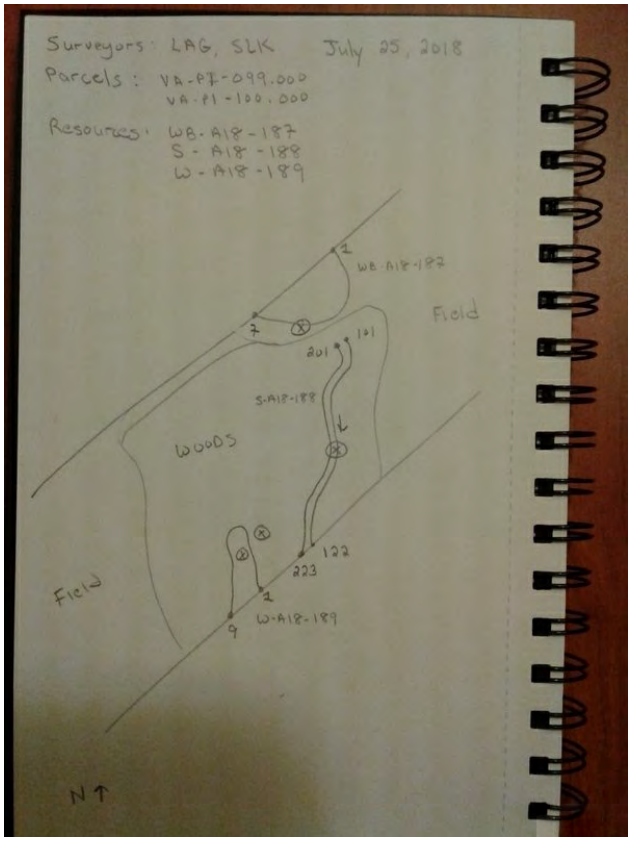
Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Notes	Cattail fringe on pond
Stream Overview Report Photos	

Upstream Stream Photo	
Upstream photo direction	N
Downstream Stream Photo	
Downstream photo direction	S

Across Stream Photo 1	
Across stream photo direction 1	W
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-227

Created	2018-08-29 14:48:31 UTC by Will Buetow
Updated	2018-09-13 16:10:34 UTC by Phil Jacques
Location	36.3369429, -79.6022479
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/08/29
Date2	180829

Resource Crew Info

Field Crew	Nathan Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Kaylee Townsend
GPS ID	NA
Resource Series Number	227
Resource ID	WB-A18-227
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-227
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined
Observed Use	Boating

Stream Conditions

Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	150

Left Bank

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0

Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	E
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-240

Created	2018-09-05 13:12:32 UTC by Laura Giese
Updated	2018-09-06 10:23:06 UTC by Laura Giese
Location	36.2935367, -79.5736179
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/05
Date2	180905

Resource Crew Info

Field Crew	Laura Giese, Chris Covington
Lead Scientist's Initials	A18
GPS Surveyor	Chris Covington
GPS ID	NA
Resource Series Number	240
Resource ID	WB-A18-240
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-240

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined

Stream Conditions

Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	115
Average Water Width (ft)	110
Bank to Bank (ft)	115
Bankfull Width (ft)	115
Probed Stream Depth	> 36 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

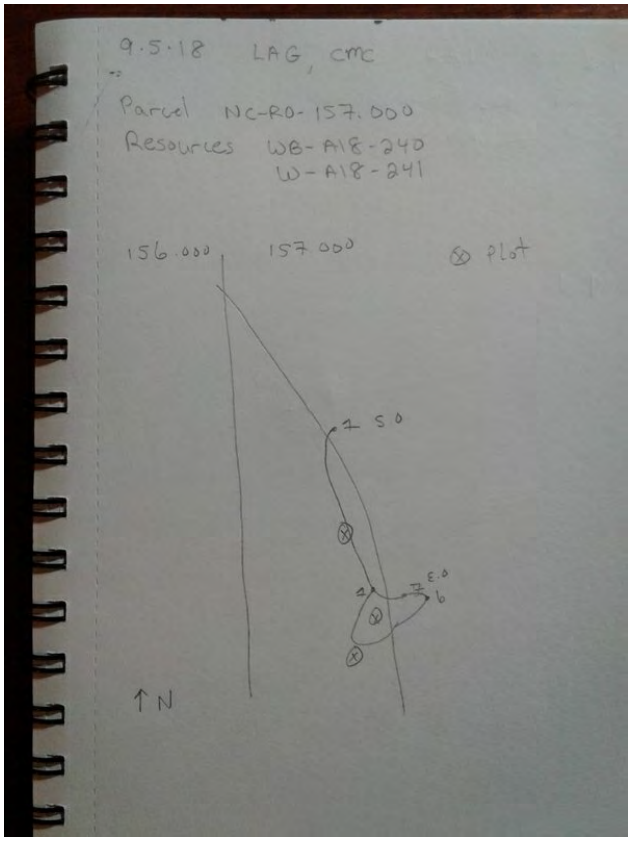
Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Notes	Cows in the pond, no culvert downslope, overflow in corner
Stream Overview Report Photos	

Upstream Stream Photo	
Upstream photo direction	NE
Downstream Stream Photo	
Downstream photo direction	SW

Across Stream Photo 1	
Across stream photo direction 1	N
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-B18-141

Created	2018-09-17 15:26:44 UTC by Katelyn Wheeler
Updated	2018-09-20 19:31:29 UTC by Susie Gifford (SBG)
Location	43.6190726, -70.3555671
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/09/17
Date2	180917

Resource Crew Info

Field Crew	Jim Bolduc
Lead Scientist's Initials	B18
GPS Surveyor	Susan Thebert
GPS ID	NA
Resource Series Number	141
Resource ID	WB-B18-141
Do you need to override the resource id?	Yes
Resource ID Override	WB-B18-141

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined
Wildlife Observed	Fish
Observed Use	Irrigation

Stream Conditions

Direction of Flow	E

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

Left Bank

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0

Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

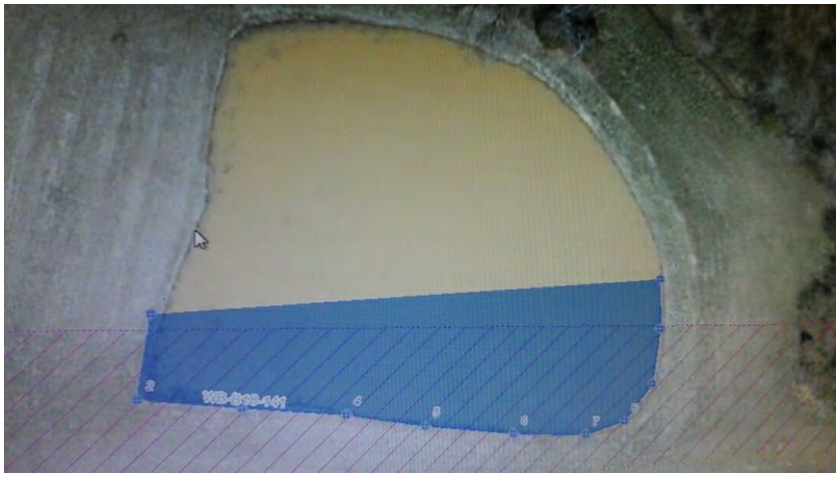
Stream Geomorphology Total	0

Stream Hydrology

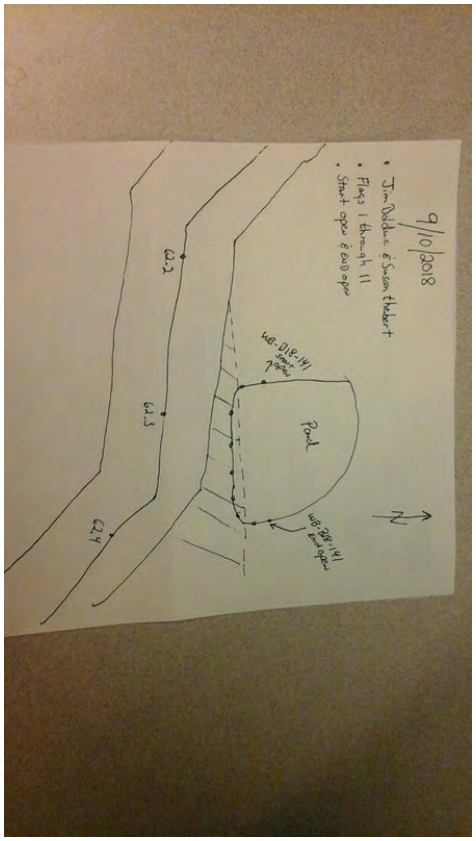
Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Regulatory Status	State Protected
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	N
Across Stream Photo 2	
Across stream photo direction 2	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-C18-93

Created	2018-08-08 14:10:19 UTC by Don Lockwood
Updated	2018-09-20 19:37:58 UTC by Susie Gifford (SBG)
Location	36.5884117, -79.5849261
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/08/08
Date2	180808

Resource Crew Info

Field Crew	Simon King
Lead Scientist's Initials	C18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	93
Resource ID	WB-C18-93
Do you need to override the resource id?	Yes
Resource ID Override	WB-C18-93
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	10.25
Calculated Stream Type	Ephemeral
Wildlife Observed	tadpoles
Observed Use	ag/wildlife pond

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW
In stream habitat	Optimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	45
Average Water Width (ft)	45
Bank to Bank (ft)	45

Bankfull Width (ft)	45
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Low
Left Bank Substrate	Cobble-Gravel, Sand

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Low
Right Bank Substrate	Cobble-Gravel, Sand

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Stream Geomorphology Total	0

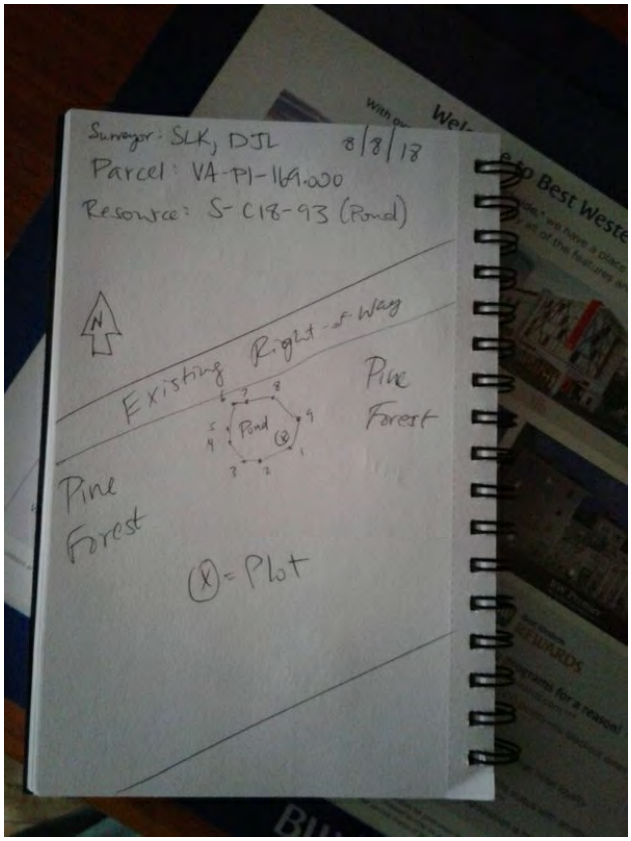
Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	3

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	7.25
Notes	Excavated pond; no inlet; no outlet; nearly dry
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Across Stream Photo 2	
Across stream photo direction 2	N
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker