

Appendix D Waterbody Data Forms and Photographs

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Created	2018-05-09 11:06:27 EDT by Laura Giese
Updated	2018-06-04 10:59:42 EDT by Sam Edmonds
Location	36.3916368, -79.6609113
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/09
Date2	180509

Field Crew	Jim Bolduc, Laura Giese, Simon King, Tony Tredway, Karla Fortier	
Lead Scientist's Initials	A18	
GPS Surveyor	Simon King	
GPS ID	NA	
Resource Series Number	01	
Resource ID	S-A18-1	
Do you need to override the resource id?	Yes	
Resource ID Override	S-A18-1	
Resource ID = Resource Type - Scientist Initials - Resource Series Number		

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	15.75
Calculated Stream Type	Ephemeral
Wildlife Observed	raccoon tracks

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S
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

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	
. 6 - 1		
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]	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	
Dight Dank		
Right Bank	1	
Right Bank Height (feet)		
Right Bank Slope Right Erosion Potential	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping	
	Low Vegetated	
Right Bank Substrate	vegetateu	
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	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	Absent	
Recent alluvial deposits	Absent	
Headcuts	Absent	
Grade control	Absent	
Natural valley	Moderate	

Second or greater order channel	No	
Stream Geomorphology Total	5	
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?	Yes	
Stream Hydrology Total	5	
Stream Biology		
Fibrous roots in streambed	Weak	

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	
Regulatory Status	State Protected, Corps Jurisdictional	
Notes	Upslope of dirt road-no surface flow or hydric soils	
Stream Overview Report Photos		

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

NW



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

W

Sketch of Stream



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

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Created	2018-05-09 17:14:20 UTC by Laura Giese
Updated	2018-09-20 19:06:46 UTC by Susie Gifford (SBG)
Location	36.3916368, -79.6609113
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/09
Date2	180509

Field Crew	Jim Bolduc, Laura Giese, Simon King, Tony Tredway, Karla Fortier
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	2
Resource ID	S-A18-2
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-2
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	47
Calculated Stream Type	Perennial
Wildlife Observed	crayfish,frogs

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	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	

OHWM Width (ft)	10
Average Water Width (ft)	5
Bank to Bank (ft)	20

Bankfull Width (ft)	20
Probed Stream Depth	0 to 6 inches
Left Bank	
Left Bank Height (feet)	5
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Boulder/Slabs, Rubble
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	High
Right Bank Substrate	Cobble-Gravel, Sand
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right]	
Right Bank Riparian Buffer Condition	n
Right Bank Riparian Buffer Condition Optimal (1.5) [Right]	n 1.5
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right]	n 1.5 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	n 1.5 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	n 1.5 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	n 1.5 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	1.5 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	1.5 0 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	1.5 0 0 0 0 0 0 0 0 1.5
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	1.5 0 0 0 0 0 0 0 0 1.5
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	1.5 0 0 0 0 0 0 0 0 1.5 Strong Moderate
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	1.5 0 0 0 0 0 0 0 0 1.5 Strong Moderate Strong
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	1.5 0 0 0 0 0 0 0 0 0 1.5 Strong Moderate Strong Strong
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	1.5 0 0 0 0 0 0 0 0 1.5 Strong Moderate Strong Strong Strong Absent
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	1.5 0 0 0 0 0 0 1.5 Strong Moderate Strong Strong Absent Strong
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	1.5 0 0 0 0 0 0 0 0 0 1.5 Strong Moderate Strong Strong Absent Strong Strong Strong
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	1.5 0 0 0 0 0 0 0 0 0 1.5 Strong Moderate Strong Strong Absent Strong Strong Strong Strong Strong Strong
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	1.5 0 0 0 0 0 0 0 0 0 1.5 Strong Moderate Strong Strong Absent Strong Strong Strong

Second or greater order channel	Yes	
Stream Geomorphology Total	25.5	
Stream Hydrology		
Stream Hydrology Presence of baseflow	Strong	

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	Strong
Aquatic mullusks	Absent
Fish	Weak
Crayfish	Strong
Amphibians	Strong
Algae	Weak
Wetland plants in streambed	Other
Stream Biology Total	13
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Water is clear
Character District	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

Ε

Across Stream Photo 2



Across stream photo direction 2

Additional Stream Photos

W



2nd section-upstream, flag #31

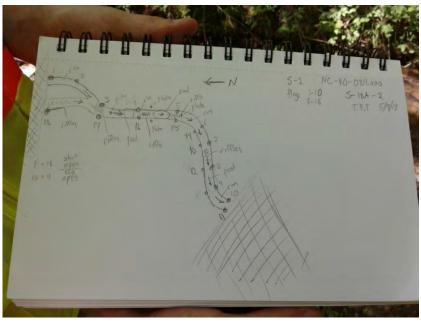


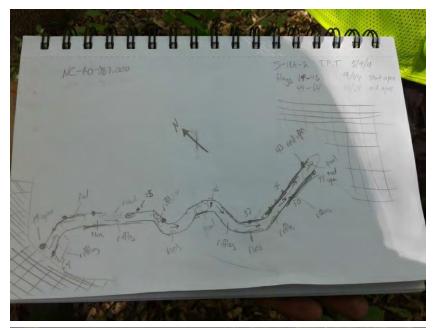
2nd section-dnstream, flag #31





Sketch of Stream









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

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Created 2018-05-10 15:43:35 UTC by Laura Giese Updated 2018-09-13 15:09:36 UTC by Phil Jacques Location 36.4098182, -79.6314372 Status Finalized & Approved Client NextEra Project MVP Southgate Date 18/05/10 Date2 180510		
Location 36.4098182, -79.6314372 Status Finalized & Approved Client NextEra Project MVP Southgate Date 18/05/10	Created	2018-05-10 15:43:35 UTC by Laura Giese
Status Finalized & Approved Client NextEra Project MVP Southgate Date 18/05/10	Updated	2018-09-13 15:09:36 UTC by Phil Jacques
Client NextEra Project MVP Southgate Date 18/05/10	Location	36.4098182, -79.6314372
Project MVP Southgate Date 18/05/10	Status	Finalized & Approved
Date 18/05/10	Client	NextEra
	Project	MVP Southgate
Date2 180510	Date	18/05/10
	Date2	180510

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	4
Resource ID	S-A18-4-1
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-4-1
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, frogs

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	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	

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

Bankfull Width (ft)	4
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	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]	0.85
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)	3
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Low
Right Bank Substrate	Vegetated
Right Bank Riparian Buffer Condition	
Optimal (1.5) [Right]	
	0
High suboptimal (1.2) [Right]	0
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	0 0
Low suboptimal (1.1) [Right]	0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	0 0 0 0.85
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0.85
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0.85 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	0 0 0.85 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 0 0.85 0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	0 0 0.85 0 0 0 0 0.85
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0 0 0.85 0 0 0 0 0 0.85 Strong
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	0 0 0.85 0 0 0 0 0 0 Strong Strong Strong
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 0 0.85 0 0 0 0 0 0 0 0 Strong Strong Strong Moderate
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 0 0.85 0 0 0 0 0 0 0 0 0 Strong Strong Strong Moderate Weak
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 0 0.85 0 0 0 0 0 0 0 0 0 0 0 Strong Strong Strong Woderate Weak Moderate
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 0 0.85 0 0 0 0 0 0 0 0 0.85 Strong Strong Strong Woderate Weak Moderate Weak
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	0 0 0.85 0 0 0 0 0 0 0 0.85 Strong Strong Strong Woderate Weak Moderate Weak Absent
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 0 0.85 0 0 0 0 0 0 0 0 0.85 Strong Strong Strong Woderate Weak Moderate Weak

Second or greater order channel	Yes	
Stream Geomorphology Total	19	
Stream Hydrology		
Presence of baseflow	Strong	

Presence of baseflow	Strong
Iron oxidizing bacteria	Moderate
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	10

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Moderate
Crayfish	Moderate
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	OBL
Stream Biology Total	11.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Photos by flag #15
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction NE



Downstream photo direction

Across Stream Photo 1

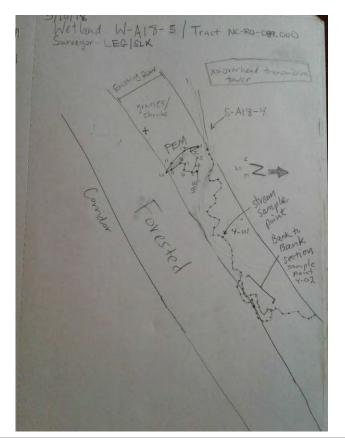
SE



Across stream photo direction 1

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Sketch of Stream



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

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Created	2018-05-11 19:45:00 UTC by Laura Giese
Updated	2018-09-13 15:52:42 UTC by Phil Jacques
Location	36.4074107, -79.6492128
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/11
Date2	180511

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	4
Resource ID	S-A18-4-2
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-4-2
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	SE
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

OHWM Width (ft)	9
Average Water Width (ft)	5
Bank to Bank (ft)	15
Bankfull Width (ft)	15

Left Bank Height (feet) 4 Left Bank Slope 25 to 35% (14 to 20 deg) Steep Left Expoin Potential Low Left Bank Riparian Buffer Condition Obble-Grave! Optimal (1-5) [Left) 0 High suboptimal (1-1) [Left] 0. Low suboptimal (1-1) [Left] 0 Low marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.6) [Left] 0 Right Bank Height (feet) 3 Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Exposion Potential Low Right Exposion Potential Low Right Exposion Potential 1.5 High potential (1.2) (Right) 0 Low suboptimal (1.1) (Right) 0 Low poor (0.5) (Right) 0 Low poor (0.5) (Right) <t< th=""><th>Probed Stream Depth</th><th>6 to 12 inches</th></t<>	Probed Stream Depth	6 to 12 inches
Left Bank Slope 25 to 35% (14 to 20 deg) Steep Left Bank Riparian Buffer Condition Optimal (1.5) Left 0 Optimal (0.5) Left 0 Optimal 0 Optim	Left Bank	
Left Bank Riparian Buffer Condition Optimal (1.5) [Left] 0 Optimal (1.5) [Left] 1.1 High marginal (0.85) [Left] 0 Optimal (1.5) [Left] 0	Left Bank Height (feet)	4
Left Bank Riparian Buffer Condition Optimal (1.5) [Left] 0 Itigh suboptimal (1.2) [Left] 0 Low suboptimal (1.2) [Left] 0 Low suboptimal (1.3) [Left] 0 Low marginal (0.85) [Left] 0 Low marginal (0.85) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.6) [Left] 0 Low poor (0.6) [Left] 0 Right Bank Stope 1 Right Bank Stope 25 to 35% (14 to 20 deg) Steep Right Erosion Potential Low Yegetaed Right Bank Substrate Vegetaed Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 1.5 High suboptimal (1.2) [Right] 0 Low suboptimal (1.2) [Right] 0 Low suboptimal (1.5) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.85) [Right] 0 Low fight Bank Stope 1 Stream Geomorphology Continuity of channel along thalweg Strong Inchannel structure Moderate Particle size of stream substrate Moderate Recent alluvial deposits Weak Natural valley Moderate	Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Bank Riparian Buffer Condition Optimal (1.5) [Left] 0 High suboptimal (1.2) [Left] 0 Low suboptimal (1.7) [Left] 1 Lift High marginal (0.75) [Left] 0 Low or marginal (0.75) [Left] 0 Low or marginal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 1.1 Right Bank Height (feet) 3 Right Bank Height (feet) 3 Right Bank Substrate Vegetated Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 1 Low suboptimal (1.2) [Right] 0 Low suboptimal (1.2) [Right] 0 Low warginal (0.85) [Right] 0 Low warginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Right bank total 1.5 Right bank collaborate Medical Substrate North Medical Sub	Left Erosion Potential	Low
Optimal (1.5) [Left] 0 Hilph suboptimal (1.1) [Left] 0 Low suboptimal (1.2) [Left] 1.1 High marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 1.1 Right Bank Subst total Right Bank Subservate Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] 0 Low suboptimal (1.5) [Right] 0 High marginal (0.85) [Right] 0 Low poor (0.5) [Right] 0 Continuity of channel bed and bank Strong Sinucisty of channel along thalweg Strong Lorchannel along thalweg	Left Bank Substrate	Cobble-Gravel
Optimal (1.5) [Left] 0 Hilph suboptimal (1.1) [Left] 0 Low suboptimal (1.2) [Left] 1.1 High marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 1.1 Right Bank Subst total Right Bank Subservate Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] 0 Low suboptimal (1.5) [Right] 0 High marginal (0.85) [Right] 0 Low poor (0.5) [Right] 0 Continuity of channel bed and bank Strong Sinucisty of channel along thalweg Strong Lorchannel along thalweg	Left Rank Pinarian Buffer Condition	on
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Low poor (0.5) [Left] 0 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 Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 1.5 High suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (1.7) [Right] 1 Low marginal (0.8) (Right) 0 Like when poor (0.5) [Right] 1 Low		
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Right Bank Height (feet) 35 to 35% (14 to 20 deg) Steep 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 Liby suboptimal (0.25) [Right] 0 Liby suboptimal (0.75) [Right] 0 Liby marginal (0.75) [Right] 0 Liby marginal (0.75) [Right] 1 Liby more (0.6) [Right] 0 Liby more (0.5) [Right] 1 Liby boor (0		
Right Bank Slope	Right Bank	
Right Erosion Potential Low 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 Low marginal (0.75) [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 Moderate Active or relict floodplain Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak Natural valley Moderate Moder	Right Bank Height (feet)	3
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 Low marginal (0.75) [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 Moderate Active or relict floodplain Weak Depositional bars or benches Moderate Recent alluvial deposits Weak Headcuts Absent Grade control Weak Natural valley Moderate Mode	Right Bank Slope	25 to 35% (14 to 20 deg) Steep
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 adong 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 Weak Headcuts Absent Grade control Weak Natural valley Moderate Mode	Right Erosion Potential	Low
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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 Low marginal (0.75) [Right] 0 High poor (0.6) [Right] 0 Low poor (0.5) [Right] 1 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 Moderate Active or relict floodplain Weak Depositional bars or benches Moderate Recent alluvial deposits Weak Headcuts Absent Grade control Weak Natural valley Moderate Modera	Dight Pank Dinarian Buffor Condi	tion
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 Moderate Active or relict floodplain Weak Depositional bars or benches Moderate Recent alluvial deposits Weak Headcuts Absent Grade control Weak Natural valley Moderate	<u> </u>	
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 Moderate Active or relict floodplain Weak Depositional bars or benches Moderate Recent alluvial deposits Weak Headcuts Absent Grade control Weak Natural valley Moderate		
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 Moderate Active or relict floodplain Weak Depositional bars or benches Moderate Recent alluvial deposits Weak Headcuts Absent Grade control Weak Natural valley Moderate Moderate Moderate Moderate Moderate Moderate Meak Moderate Meak Moderate		
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 Moderate Active or relict floodplain Weak Depositional bars or benches Moderate Recent alluvial deposits Weak Headcuts Absent Grade control Weak Natural valley Moderate		
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Continuity of channel bed and bank Strong Sinuosity of channel along thalweg In-channel structure Moderate Particle size of stream substrate Moderate Active or relict floodplain Weak Depositional bars or benches Moderate Recent alluvial deposits Weak Headcuts Absent Grade control Weak Moderate	Right bank total	1.3
Sinuosity of channel along thalweg In-channel structure Moderate Particle size of stream substrate Moderate Active or relict floodplain Weak Depositional bars or benches Moderate Recent alluvial deposits Weak Headcuts Grade control Weak Natural valley Moderate Moderate Moderate Moderate Moderate Moderate Moderate Moderate Moderate	Stream Geomorphology	
In-channel structure Moderate Particle size of stream substrate Moderate Active or relict floodplain Weak Depositional bars or benches Moderate Recent alluvial deposits Weak Headcuts Absent Grade control Weak Natural valley Moderate	Continuity of channel bed and bank	Strong
Particle size of stream substrate Moderate Active or relict floodplain Weak Depositional bars or benches Moderate Recent alluvial deposits Weak Headcuts Absent Grade control Weak Natural valley Moderate	Sinuosity of channel along thalweg	Strong
Active or relict floodplain Weak Depositional bars or benches Moderate Recent alluvial deposits Weak Headcuts Absent Grade control Weak Natural valley Moderate	In-channel structure	Moderate
Depositional bars or benches Moderate Recent alluvial deposits Weak Headcuts Absent Grade control Weak Natural valley Moderate	Particle size of stream substrate	Moderate
Recent alluvial deposits Headcuts Absent Grade control Weak Natural valley Moderate	Active or relict floodplain	Weak
Headcuts Absent Grade control Weak Natural valley Moderate	Depositional bars or benches	Moderate
Grade control Weak Natural valley Moderate	Recent alluvial deposits	Weak
Natural valley Moderate	Headcuts	Absent
•	Grade control	Weak
	Natural valley	Moderate
-	Second or greater order channel	Yes

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Stream	Geomor	pnoio	gy rotar

18.5

Stream Hydrology

Presence of baseflow	Strong
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	10

Stream Biology

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

Upstream Stream Photo



Upstream photo direction

N



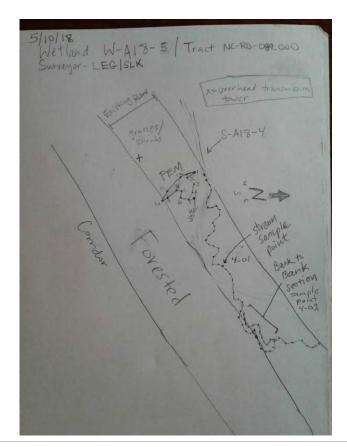
Downstream photo direction

Across Stream Photo 1

S



Sketch of Stream



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

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Created	2018-05-11 20:18:52 UTC by Laura Giese
Updated	2018-09-13 15:10:06 UTC by Phil Jacques
Location	36.4078749, -79.6504244
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/11
Date2	180511

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	9
Resource ID	S-A18-9
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-9
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	SE
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

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)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated
Left Danie Dinamina Duffen Conditi	
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	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated
Dight Bank Dinarian Buffer Condi	ition
Right Bank Riparian Buffer Condi 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	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Weak
Natural valley	
racarar vancy	Moderate
Second or greater order channel	Moderate Yes

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17.5

Stream Hydrology

Presence of baseflow	Strong
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	9

Stream Biology

Absent
Absent
Strong
Absent
Absent
Weak
Moderate
Absent
Other
10.5
State Protected, Corps Jurisdictional

Upstream Stream Photo



Upstream photo direction

W



Downstream photo direction

Across Stream Photo 1

SE



Across stream photo direction 1

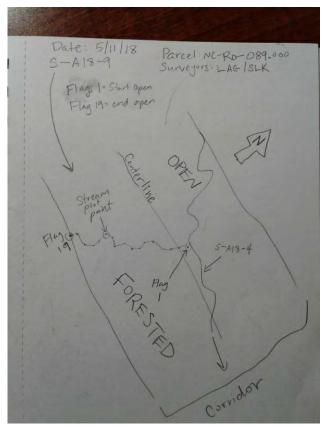
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Additional Stream Photos











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

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Created	2018-05-12 09:11:33 EDT by Laura Giese
Updated	2018-06-05 14:33:22 EDT by Sam Edmonds
Location	36.0960034, -79.3691353
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/12
Date2	180512

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	10
Resource ID	S-A18-10
Do you need to override the resource id?	No
Pasource ID = Pasource Type - Scientist Initials	- Pasourca Sarias Number

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	N
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

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

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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

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	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]	0.44
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.225
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0.15
Right bank total	0.815

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	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	Moderate
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	3

Stream Biology

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Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Weak
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Absent
Algae	Absent
Stream Biology Total	5.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Channel ends in grasses area. Collects road runoff
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction NE



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

SW



WB-A1	8-11
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Created	2018-05-12 15:06:58 UTC by Laura Giese
Updated	2018-09-20 19:14:24 UTC by Susie Gifford (SBG)
Location	36.0959816, -79.3690677
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/12
Date2	180512

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	11
Resource ID	WB-A18-11
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-11
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, turtles, fish

Stream Conditions

of Flow

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	

OHWM Width (ft)	37	
Average Water Width (ft)	37	
Bank to Bank (ft)	40	
Bankfull Width (ft)	39	
Probed Stream Depth	> 36 inches	

Left Bank	
Left Bank Height (feet)	2
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud
Left Bank Riparian Buffer Cond	ition
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	Silt-Mud
Right Bank Riparian Buffer Con-	dition
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, Corps Jurisdictional
<u> </u>	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo

S



Downstream photo direction

NE

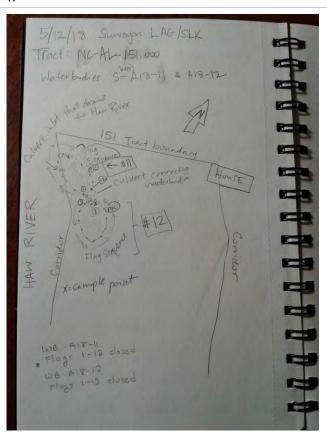
Across Stream Photo 1



Across stream photo direction 1

Sketch of Stream

W



W	B-A	18-	12
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Created	2018-05-12 15:15:35 UTC by Laura Giese
Updated	2018-09-20 19:14:37 UTC by Susie Gifford (SBG)
Location	36.0956647, -79.3697878
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/12
Date2	180512

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	12
Resource ID	WB-A18-12
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-12
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, turtles, frogs

Stream Conditions

|--|--|

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	

OHWM Width (ft)	35	
Average Water Width (ft)	33	
Bank to Bank (ft)	37	
Bankfull Width (ft)	37	
Probed Stream Depth	> 36 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
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	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	
Stream Geomorphology Total	0
Character Handrale -	
Stream Hydrology	
Stream Hydrology Total	0
Stream Biology	
Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo

ς



Downstream photo direction

Ν

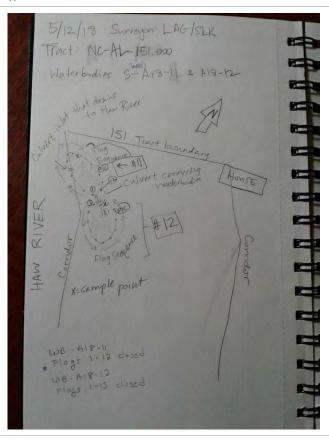
Across Stream Photo 1



Across stream photo direction 1

Sketch of Stream

W



S-	Δ.	18	-1	5
	\boldsymbol{n}	10) – ı	

Created	2018-05-12 12:26:46 EDT by Laura Giese
Updated	2018-06-05 14:37:19 EDT by Sam Edmonds
Location	36.0943694, -79.3682334
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/12
Date2	180512

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	15
Resource ID	S-A18-15
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasourca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	26
Calculated Stream Type	Intermittent
Wildlife Observed	tadpoles

Stream Conditions

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

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)	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]	<u>0</u>
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]	0.5
Left bank total	0.5
Ecre Bullik Gotal	0.5
Right Bank	
Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
-	Moderate
Right Bank Substrate	Silt-Mud
Right Bank Substrate	Silt-Mud
Right Bank Substrate Right Bank Riparian Buffer Condition	Silt-Mud on
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right]	Silt-Mud on 0
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right]	Silt-Mud O 0
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	Silt-Mud 0 0 0 0
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	Silt-Mud On 0 0 0 0 0 0
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	Silt-Mud 0 0 0 0 0 0 0 0
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	Silt-Mud 0 0 0 0 0 0 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	Silt-Mud On 0 0 0 0 0 0 0 0 0 0 0 0 0
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	Silt-Mud 0 0 0 0 0 0 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	Silt-Mud On 0 0 0 0 0 0 0 0 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	Silt-Mud On 0 0 0 0 0 0 0 0 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	Silt-Mud On 0 0 0 0 0 0 0 0 0 0 0 5 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Stream Geomorphology Continuity of channel bed and bank	Silt-Mud On O O O O O O O O Strong
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	Silt-Mud On O O O O O O O Strong Absent
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	Silt-Mud On O O O O O O O O O Strong Absent Moderate
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	Silt-Mud On O O O O O O O O Strong Absent Moderate Moderate
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	Silt-Mud On O O O O O O O O O Strong Absent Moderate Moderate Absent
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	Silt-Mud On O O O O O O O O O Strong Absent Moderate Moderate Absent Weak
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	Silt-Mud On 0 0 0 0 0 0 0 0 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	Silt-Mud On 0 0 0 0 0 0 0 0 0 0 0 0 0

Stream Hydrology

Presence of baseflow	Moderate
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	7.5

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Weak
Fish	Weak
Crayfish	Absent
Amphibians	Absent
Algae	Moderate
Stream Biology Total	9.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Asian clam
Stroam Overview Papert Photos	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

NE

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

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Sketch of Stream



WB-A1	8-16
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Created	2018-05-12 16:54:25 UTC by Laura Giese	
Updated	2018-09-20 19:16:06 UTC by Susie Gifford (SBG)	
Location	36.0946353, -79.3687173	
Status	Finalized & Approved	
Client	NextEra	
Project	MVP Southgate	
Date	18/05/12	
Date2	180512	

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	16
Resource ID	WB-A18-16
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-16
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	4.5
Calculated Stream Type	Ephemeral

Stream Conditions

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)	160	
On what water (it)	100	
Average Water Width (ft)	155	
Bank to Bank (ft)	170	
Bankfull Width (ft)	170	
Probed Stream Depth	> 36 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		
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	Silt-Mud		
Right Bank Riparian Buffer Condition	1		
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			
Fish	Strong		
Amphibians	Strong		
Wetland plants in streambed	OBL		
Stream Biology Total	4.5		
	4.5		
Stream Overview Report Photos			

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo

NE



Downstream photo direction

SW

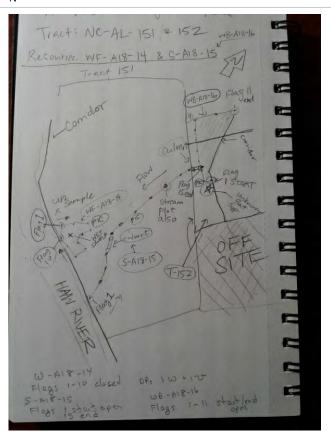
Across Stream Photo 1



Across stream photo direction 1

Sketch of Stream

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S-	Δ.	18	-1	7
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Created	2018-05-15 10:12:56 EDT by Laura Giese	
Updated	2018-06-15 09:25:18 EDT by Sam Edmonds	
Location	36.4975065, -79.6755401	
Status	Finalized & Approved	
Client	NextEra	
Project	MVP Southgate	
Date	18/05/15	
Date2	180515	

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	17
Resource ID	S-A18-17
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	35.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Fast (> 5 cfs)
Direction of Flow	SE
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

OHWM Width (ft)	167	
Average Water Width (ft)	150	
Bank to Bank (ft)	170	
Bankfull Width (ft)	167	
Probed Stream Depth	> 36 inches	

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L	CIL	υa	ΙIN

Left Bank Height (feet)	20
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	Moderate
Left Bank Substrate	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)	20
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	Moderate
Right Bank Substrate	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	
High poor (0.6) [Right]	0	
Low poor (0.5) [Right]	0.1	
Right bank total	1.3	

Stream Geomorphology

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

Stream Hydrology

Presence of baseflow	Strong
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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	Strong
Aquatic mullusks	Weak
Fish	Strong
Crayfish	Weak
Amphibians	Absent
Algae	Absent
Stream Biology Total	12
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Dan River, extension on North side flags 1-3
C: D : D : D	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction NW

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

SE



Across stream photo direction 1

SW

Additional Stream Photos





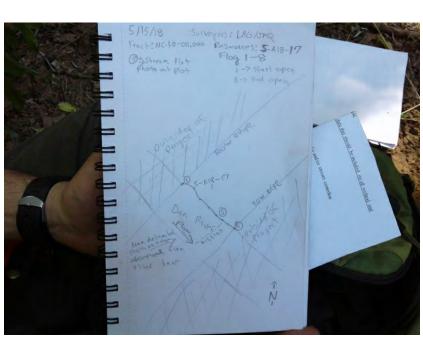


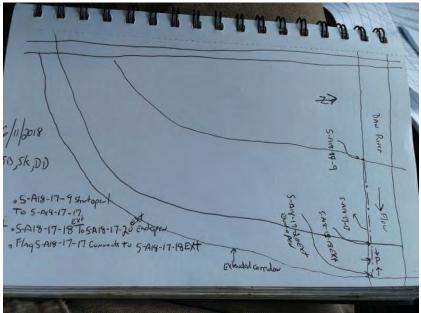


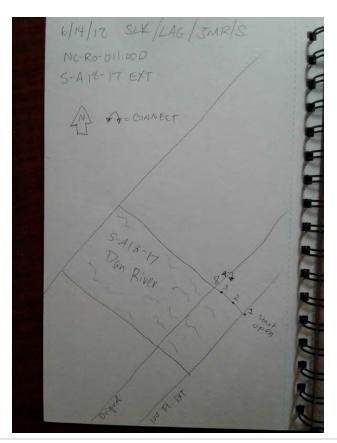




Sketch of Stream







S-	Δ.	18	-1	q
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Created	2018-05-15 13:47:54 EDT by Laura Giese
Updated	2018-06-05 14:40:05 EDT by Sam Edmonds
Location	36.5016006, -79.6750934
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/15
Date2	180515

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	19
Resource ID	S-A18-19
Do you need to override the resource id?	No
Pasource ID = Pasource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

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

Stream Conditions

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

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

Left Bank Height (feet)	4	
Left Bank Slope	25 to 35% (14 to 20 deg) Steep	
Left Erosion Potential	Moderate	
Left Bank Substrate	Vegetated	
Left Bank Riparian Buffer Con	dition	
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)	4	
Right Bank Slope	25 to 35% (14 to 20 deg) Steep	
Right Erosion Potential	Moderate	
Right Bank Substrate	Vegetated	
Right Bank Riparian Buffer Co	ndition	
Optimal (1.5) [Right]	1	
High subontimal (1.2) [Right]	0	

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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]	0.35	
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	Moderate
Particle size of stream substrate	Moderate
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	15

Stream Hydrology

Presence of baseflow	Strong
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	9

Stream Biology

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

Ν

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

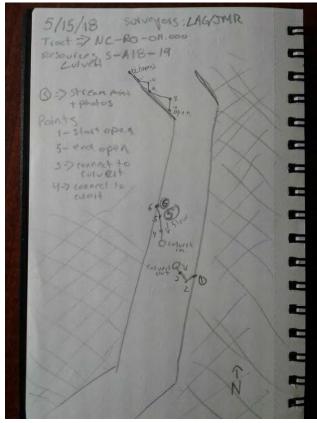
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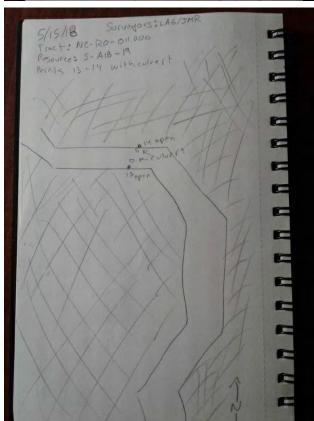


Across stream photo direction 1

W

Sketch of Stream





S-A	1	Q.	.21
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2018-05-16 16:24:45 UTC by Laura Giese
2018-09-20 19:07:17 UTC by Susie Gifford (SBG)
36.5346834, -79.6390815
Finalized & Approved
NextEra
MVP Southgate
18/05/16
180516

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	21
Resource ID	S-A18-21
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	25.25
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NW
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	0.7
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0.7

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

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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]	0.75	
High suboptimal (1.2) [Left]	0	
Low suboptimal (1.1) [Left]	0	
High marginal (0.85) [Left]	0	
Low marginal (0.75) [Left]	0	
High poor (0.6) [Left]	0.7	
Low poor (0.5) [Left]	0	
Left bank total	1.45	

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	
High poor (0.6) [Right]	0.3	
Low poor (0.5) [Right]	0	
Right bank total	1.05	

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	Weak
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
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	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7

Stream Biology

Absent Acrobenthos Weak Aguatic mullusks Absent Abs	Stream Biology		
Macrobenthos Macrobenthos Macrobenthos Mount Macrobenthos Mount Macrobenthos Absent Mount	Fibrous roots in streambed	Absent	
Absent Trayfish Absent Weak Weland plants in streambed FACW Stream Biology Total 8.25 Regulatory Status Additional stream photos for extension, P1 up, P2 dn, P3 across, headwaters multi-	Rooted upland plants in streambed	Absent	
Absent Absent Absent Amphibians Weak Absent Vetland plants in streambed Active Biology Total Active Biology Total Active Biology Status Additional stream photos for extension, P1 up, P2 dn, P3 across, headwaters multi-	Macrobenthos	Weak	
Absent Weak Algae Absent Vetland plants in streambed FACW Attream Biology Total 8.25 Algulatory Status State Protected, Corps Jurisdictional Additional stream photos for extension, P1 up, P2 dn, P3 across, headwaters multi-	Aquatic mullusks	Absent	
Weak Absent Vetland plants in streambed Actream Biology Total Acgulatory Status State Protected, Corps Jurisdictional Additional stream photos for extension, P1 up, P2 dn, P3 across, headwaters multi-	Fish	Absent	
Absent Vetland plants in streambed FACW Stream Biology Total Regulatory Status State Protected, Corps Jurisdictional Additional stream photos for extension, P1 up, P2 dn, P3 across, headwaters multi-	Crayfish	Absent	
Vetland plants in streambed FACW Stream Biology Total Regulatory Status State Protected, Corps Jurisdictional Additional stream photos for extension, P1 up, P2 dn, P3 across, headwaters multi-	Amphibians	Weak	
Regulatory Status State Protected, Corps Jurisdictional Additional stream photos for extension, P1 up, P2 dn, P3 across, headwaters multi-	Algae	Absent	
State Protected, Corps Jurisdictional Additional stream photos for extension, P1 up, P2 dn, P3 across, headwaters multi-	Wetland plants in streambed	FACW	
Additional stream photos for extension, P1 up, P2 dn, P3 across, headwaters multi-	Stream Biology Total	8.25	
·	Regulatory Status	State Protected, Corps Jurisdictional	
	Notes		

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

SE

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

Ν

Additional Stream Photos

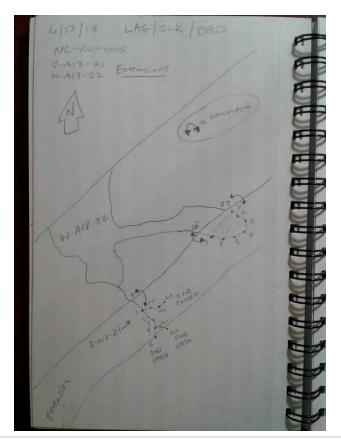






Sketch of Stream





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

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Created	2018-05-17 09:05:49 EDT by Laura Giese
Updated	2018-06-05 14:43:53 EDT by Sam Edmonds
Location	36.5174116, -79.6577677
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/17
Date2	180517

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	23
Resource ID	S-A18-23
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	banded snake in stream

Stream Conditions

Water Flow Velocity	Slow (< 1 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	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)	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 Conditi	ion	
Optimal (1.5) [Left]	0	
High suboptimal (1.2) [Left]	0.6	
Low suboptimal (1.1) [Left]	0	
High marginal (0.85) [Left]	0.42	
Low marginal (0.75) [Left]	0	
High poor (0.6) [Left]	0	
Low poor (0.5) [Left]	0	
Left bank total	1.02	
Right Bank		
Right Bank Height (feet)	2	
	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping	
Right Bank Slope	o to 0% (o to 5 deg) Nearly Level to deflay Sloping	
Right Bank Slope Right Erosion Potential	Low	
Right Erosion Potential Right Bank Substrate	Low Vegetated	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi	Low Vegetated ition	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right]	Low Vegetated ition 0	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right]	Low Vegetated ition 0 0.2	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	Low Vegetated ition 0 0.2 0	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	Low Vegetated ition 0 0.2 0 0.42	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	Low Vegetated ition 0 0.2 0 0.42 0	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	Low Vegetated ition 0 0.2 0 0.42 0 0	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	Low Vegetated ition 0 0.2 0 0.42 0	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	Low Vegetated ition 0 0.2 0 0.42 0 0 0	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	Low Vegetated ition 0 0.2 0 0.42 0 0 0	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	Low Vegetated ition 0 0.2 0 0.42 0 0 0	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Stream Geomorphology	Low Vegetated ition 0 0.2 0 0.42 0 0 0 0.42 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Stream Geomorphology Continuity of channel bed and bank	Low Vegetated ition 0 0.2 0 0.42 0 0 0 0.42 Strong	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] High poor (0.5) [Right] Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	Low Vegetated ition 0 0.2 0 0.42 0 0 0 0 0 Strong Moderate	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	Low Vegetated ition 0 0.2 0 0.42 0 0 0 0.62 Strong Moderate Moderate	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	Low Vegetated ition 0 0.2 0 0.42 0 0 0 0.42 0 0 0 Strong Moderate Moderate Moderate Moderate	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	Low Vegetated	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	Low Vegetated ition 0 0.2 0 0.42 0 0 0 0 0 0 0 0 Strong Moderate	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	Low Vegetated	
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	Low Vegetated	

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Stream	Geomo	rpnoi	ogv	rotai

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Stream Hydrology

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Presence of baseflow	Strong
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	8.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Weak
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	9.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Water murky after heavy rains the day before
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

NW

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

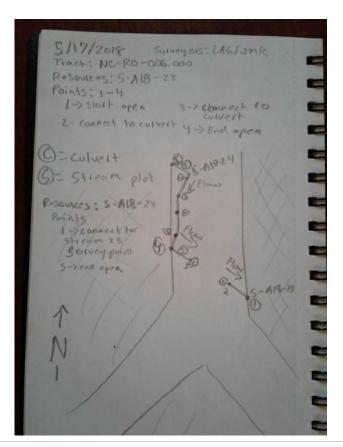
SE



Across stream photo direction 1

SW

Sketch of Stream



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

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Created	2018-05-17 14:06:31 UTC by Laura Giese
Updated	2018-09-20 19:09:07 UTC by Susie Gifford (SBG)
Location	36.5177048, -79.6579117
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/17
Date2	180517

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	24
Resource ID	S-A18-24
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasourca Sarias Number

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	Slow (< 1 cfs)
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	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

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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]	0.6	
Low suboptimal (1.1) [Left]	0	
High marginal (0.85) [Left]	0	
Low marginal (0.75) [Left]	0.42	
High poor (0.6) [Left]	0	
Low poor (0.5) [Left]	0	
Left bank total	1.02	

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	Moderate
In-channel structure	Moderate
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	Moderate
Second or greater order channel	No
Stream Geomorphology Total	14

Stream Hydrology

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

Stream Biology

Absent
Weak
Moderate
Absent
Absent
Weak
Absent
7.5
State Protected, Corps Jurisdictional

Upstream Stream Photo



Upstream photo direction NW

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

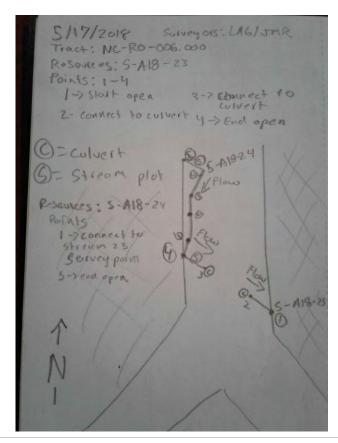
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Across stream photo direction 1

SW

Sketch of Stream



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

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Created	2018-05-17 15:59:21 EDT by Laura Giese
Updated	2018-06-05 14:46:25 EDT by Sam Edmonds
Location	36.5172675, -79.6586258
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/17
Date2	180517

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	27
Resource ID	S-A18-27
Do you need to override the resource id?	No
Passures ID = Passures Type Scientist Initials	Pageurge Coving Number

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	SE
Channel condition	Optimal
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)	1	
Average Water Width (ft)	1	
Bank to Bank (ft)	2	
Bankfull Width (ft)	2	
Probed Stream Depth	0 to 6 inches	

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LEIL Dalik		
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 Co	ondition	
Ontimal (1.5) [Left]	Λ	

0
0
0.85
0
0
0
0
0.85

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]	0.85	
Low marginal (0.75) [Right]	0	
High poor (0.6) [Right]	0	
Low poor (0.5) [Right]	0	
Right bank total	0.85	

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	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	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
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	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	OBL
Stream Biology Total	8.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction NW

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

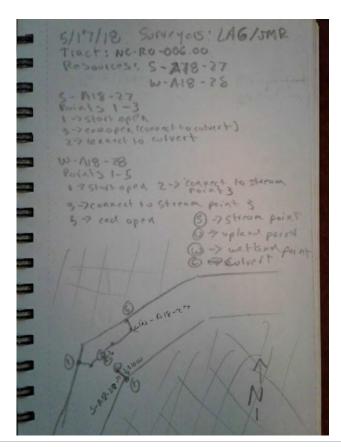
SE



Across stream photo direction 1

Ε

Sketch of Stream



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

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Created	2018-05-17 21:05:07 UTC by Laura Giese
Updated	2018-09-20 19:18:02 UTC by Susie Gifford (SBG)
Location	36.5187886, -79.6541716
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/17
Date2	180517

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	29
Resource ID	WB-A18-29
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-29
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

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)	80	
Average Water Width (ft)	80	
Bank to Bank (ft)	85	
Bankfull Width (ft)	85	
Probed Stream Depth	> 36 inches	

Left Bank

Left Bank Riparian Buffer Cond	lition
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
Diabt Dools	
Right Bank	
Right Bank Riparian Buffer Con	dition
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
Streets Cooperate loss.	
Stream Geomorphology	
Stream Geomorphology Total	0
Stream Hydrology	
Stream Hydrology Total	0
Stream Biology	
Stream Biology Total	0

State Protected, Corps Jurisdictional

Regulatory Status

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo

W



Downstream photo direction

NE

Across Stream Photo 1



Sketch of Stream



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

S-A	1	Q.	.21
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Created	2018-05-18 19:17:08 UTC by Laura Giese
Updated	2018-09-20 19:10:20 UTC by Susie Gifford (SBG)
Location	36.5166419, -79.6564391
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/18
Date2	180518

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	31
Resource ID	S-A18-31
Do you need to override the resource id?	No
Pasourca ID - Pasourca Typa - Scientist Initials	- Pasource Saries Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	20.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S
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)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

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L	C II			ıın

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]	0.35	
High suboptimal (1.2) [Left]	0	
Low suboptimal (1.1) [Left]	0	
High marginal (0.85) [Left]	0.65	
Low marginal (0.75) [Left]	0	
High poor (0.6) [Left]	0	
Low poor (0.5) [Left]	0	
Left bank total	1	

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]	0.35	
High suboptimal (1.2) [Right]	0	
Low suboptimal (1.1) [Right]	0	
High marginal (0.85) [Right]	0.65	
Low marginal (0.75) [Right]	0	
High poor (0.6) [Right]	0	
Low poor (0.5) [Right]	0	
Right bank total	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	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	8

Stream Hydrology

Presence of baseflow	Weak
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	5.5

Stream Biology

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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
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Stream channel in early stages of development

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Ν

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

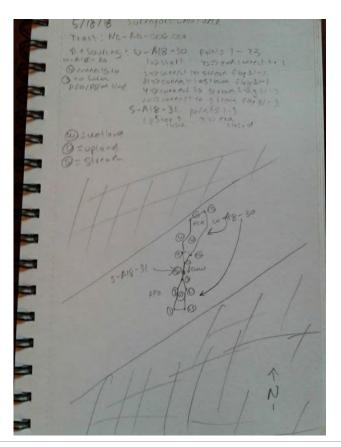
SE



Across stream photo direction 1

W

Sketch of Stream



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

S-	Δ1	Q	-3	7
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Created	2018-05-19 14:19:43 UTC by Laura Giese
Updated	2018-09-20 19:10:45 UTC by Susie Gifford (SBG)
Location	36.5165163, -79.6570818
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/19
Date2	180519

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	32
Resource ID	S-A18-32
Do you need to override the resource id?	No
Pasourca ID - Pasourca Typa - Scientist Initials	- Pasquirca Sarias Number

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	SE
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

Probed Stream Depth	6 to 12 inches	
Bankfull Width (ft)	5	
Bank to Bank (ft)	6	
Average Water Width (ft)	3	
OHWM Width (ft)	5	

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Left Bank Height (feet)	4
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]	0.3
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]	0.5
Low poor (0.5) [Left]	0
Left bank total	0.8

Right Bank

Right Bank Height (feet)	4
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]	0.3
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]	0.5
Low poor (0.5) [Right]	0
Right bank total	0.8

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	Weak
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Strong
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	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

Stream Biology

Stream Biology	
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	8
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Flow conditions high after heavy rains. Could impact biology observations. Channel straight through existing ROW. Veg has covered rocklined banks. Additional stream photos for extension, P3 dn, P4 up, P5 across

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Ν

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

W

Additional Stream Photos



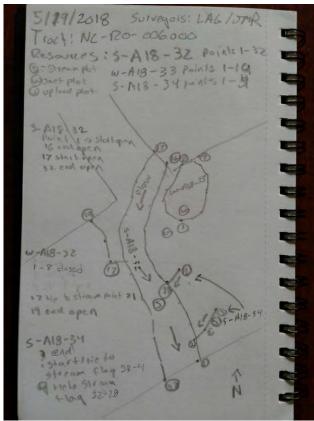


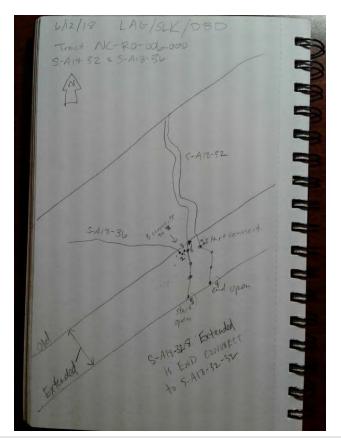






Sketch of Stream





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

S-	Δ1	I Q	-34	
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Created	2018-05-19 10:48:53 EDT by Laura Giese
Updated	2018-06-05 14:53:33 EDT by Sam Edmonds
Location	36.5161081, -79.6566961
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/19
Date2	180519

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	34
Resource ID	S-A18-34
Do you need to override the resource id?	No
Pasourca ID - Pasourca Typa - Scientist Initials	- Pasource Saries Number

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	W
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)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

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L	.כונ	Dall	ın

Left Bank Height (feet)	2
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

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	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
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	

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	Moderate
Grade control	Weak
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	9.5

Presence of baseflow	Weak
Iron oxidizing bacteria	Weak
Leaf litter	Moderate
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	Weak
Algae	Absent
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Two short side channels into main stream #32
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

SW

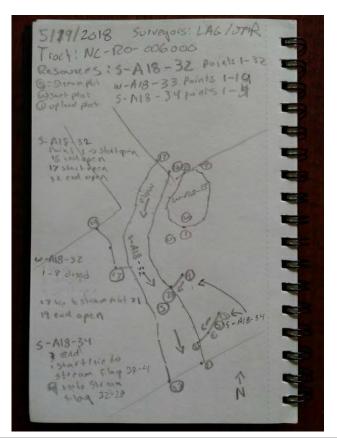


Across stream photo direction 1

W



Sketch of Stream



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

S-	Δ1	Q.	-3	6
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Created	2018-05-19 11:49:58 EDT by Laura Giese
Updated	2018-06-13 11:32:52 EDT by Sam Edmonds
Location	36.5157772, -79.6569003
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/19
Date2	180519

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	36
Resource ID	S-A18-36
Do you need to override the resource id?	No
Pasourca ID - Pasourca Typa - Scientist Initials	- Pasquirca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	32.5
Calculated Stream Type	Perennial

Stream Conditions

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

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

Left	Bank
LCIC	Duilin

Left Bank Height (feet)	3	
Left Bank Slope	25 to 35% (14 to 20 deg) Steep	
Left Erosion Potential	Low	
Left Bank Substrate	Vegetated	

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	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]	0.4
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.15

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	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	17

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	
Regulatory Status	State Protected, Corps Jurisdictional	
Notes	Additional stream photos for extension, P1 up, P2 dn, P3 across: flags 1-3	
Stream Overview Report Photos		

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

Ν

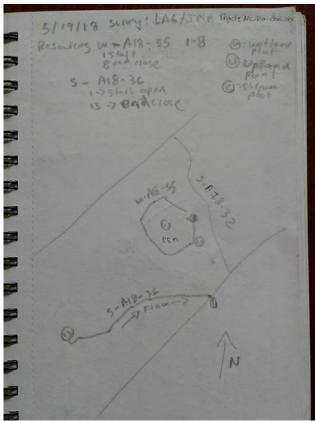
Additional Stream Photos

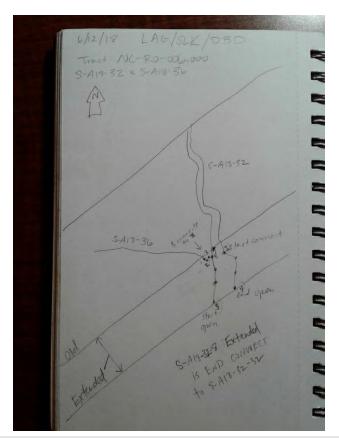






Sketch of Stream





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

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Created	2018-05-19 13:41:53 EDT by Laura Giese
Updated	2018-06-13 11:33:19 EDT by Sam Edmonds
Location	36.5130826, -79.659903
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/19
Date2	180519

Joe Roy, Laura Giese
A18
Joe Roy
NA
37
S-A18-37
No

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	34.75
Calculated Stream Type	Perennial

Stream Conditions

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

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

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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	

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	Low
Right Bank Substrate	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	

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	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	19

Presence of baseflow	Strong
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	8.5

Stream Biology

Stream Blology	
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
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Additional stream photos for extention: P1 up, P2 dn, P3 across: flags 1-5
Stream Overview Report Photos	
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction N



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

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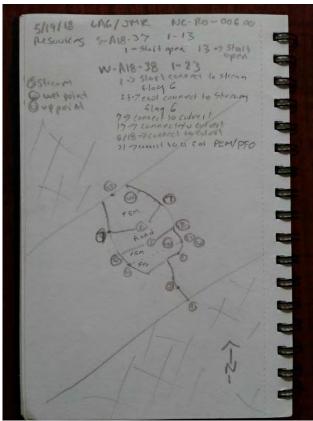
Additional Stream Photos

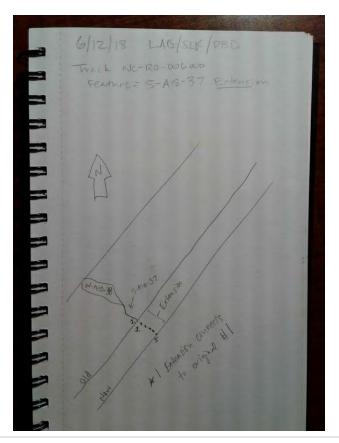






Sketch of Stream





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

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Created	2018-05-21 09:46:08 EDT by Laura Giese
Updated	2018-06-14 13:49:08 EDT by Sam Edmonds
Location	36.5250325, -79.6476307
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/21
Date2	180521

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	40
Resource ID	S-A18-40
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	30.5
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	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

Probed Stream Depth	> 36 inches	
Bankfull Width (ft)	45	
Bank to Bank (ft)	45	
Average Water Width (ft)	30	
OHWM Width (ft)	40	

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ΔΤΤ	Rar	ער

Left Bank Height (feet)	12	
Left Bank Slope	> 35% (> 20 deg) Very Steep	
Left Erosion Potential	Moderate	
Left Bank Substrate	Vegetated	

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)	6
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

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

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
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	Weak
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	20.5

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

Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Water too high to determine biology on initial visit. Additional stream photos for extension, P1 up, P2 dn, P3 across

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction N



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

W

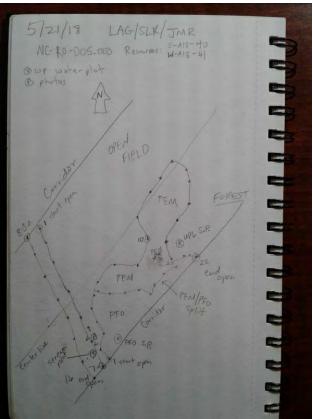
Additional Stream Photos

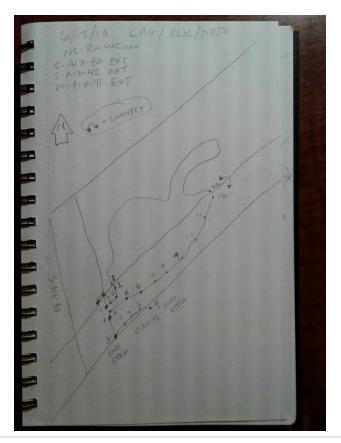






Sketch of Stream





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

ς_	Δ1	R.	-42
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Created	2018-05-21 12:02:51 EDT by Laura Giese
Updated	2018-06-14 13:49:50 EDT by Sam Edmonds
Location	36.5264717, -79.6465469
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/21
Date2	180521

Joe Roy, Laura Giese, Simon King
A18
Simon King
NA
42
S-A18-42
No

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

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	29
Calculated Stream Type	Intermittent

Stream Conditions

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

Probed Stream Depth	> 36 inches	
Bankfull Width (ft)	10	
Bank to Bank (ft)	10	
Average Water Width (ft)	8	
OHWM Width (ft)	10	

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

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

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	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

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	Moderate
Depositional bars or benches	Moderate
Recent alluvial deposits	Moderate
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	19.5

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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

Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Recent heavy rains caused flooding. Couldn't determine biology during initial site visit. Additional stream photos for extension P1 up, P2 dn, P3 across: flag 0-13 and 100-113.

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction	N	



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

Ε

Additional Stream Photos



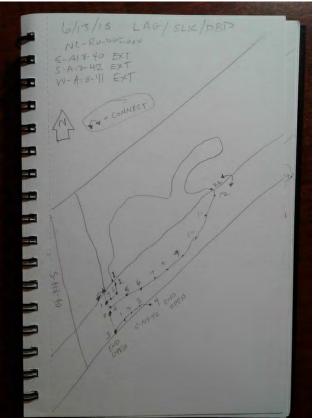


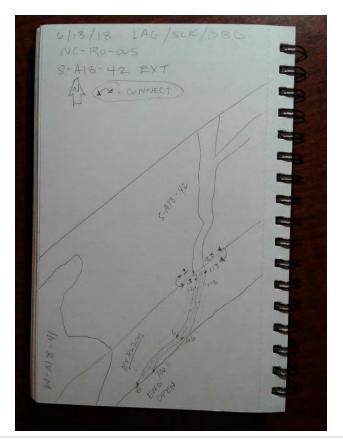


Sketch of Stream









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

ς_	Δ1	R	-43
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Created	2018-05-21 12:24:58 EDT by Laura Giese
Updated	2018-06-18 15:53:02 EDT by Sam Edmonds
Location	36.5272547, -79.6458659
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/21
Date2	180521

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	43
Resource ID	S-A18-43
Do you need to override the resource id?	No
Pasourca ID - Pasourca Typa - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

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

Stream Conditions

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

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 Height (feet)	4
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Optimal (1.5) [Left]	0.6	
High suboptimal (1.2) [Left]	0	
Low suboptimal (1.1) [Left]	0	
High marginal (0.85) [Left]	0	
Low marginal (0.75) [Left]	0.3	
High poor (0.6) [Left]	0	
Low poor (0.5) [Left]	0	
Left bank total	0.9	

Right Bank

Right Bank Height (feet)	6
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

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

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	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Weak
Natural valley	Weak
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	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	
Regulatory Status	State Protected, Corps Jurisdictional	
Notes	Recent heavy rains caused flooding during initial site visit. Additional stream photos fo extension, P1 across, P2 up, P3 dn: flags 1-13, 14-28	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

NW



Downstream photo direction

Across Stream Photo 1

SE



Across stream photo direction 1

Ν

Additional Stream Photos







Sketch of Stream





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

W	R-	Δ1	١Q	-4	5

Created	2018-05-21 18:47:28 UTC by Laura Giese
Updated	2018-09-20 19:18:32 UTC by Susie Gifford (SBG)
Location	36.5338265, -79.6425505
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/21
Date2	180521

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	45
Resource ID	WB-A18-45
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-45
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 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

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

Regulatory Status State Protected, Corps Jurisdictional

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction S



Downstream photo direction

Across Stream Photo 1

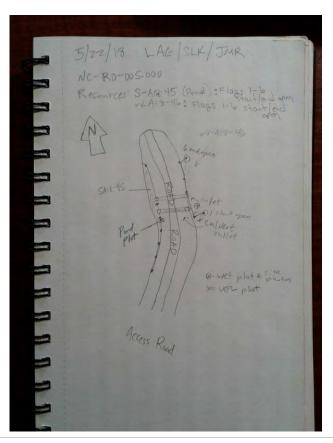
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Across stream photo direction 1

W

Sketch of Stream



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

S-	Δ	1	8-	Δ.	7
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Created	2018-05-23 15:11:19 UTC by Laura Giese
Updated	2018-09-20 19:11:00 UTC by Susie Gifford (SBG)
Location	36.5029788, -79.6704668
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/23
Date2	180523

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	47
Resource ID	S-A18-47
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	30.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SE
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)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

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Left Bank Height (feet)	4	
Left Bank Slope	25 to 35% (14 to 20 deg) Steep	
Left Erosion Potential	Moderate	
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	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
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
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0.25
Right bank total	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	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	Yes
Stream Geomorphology Total	14

Stream Hydrology

Presence of baseflow	Strong
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	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	8.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Additional stream photos for extension, P1 up, P2 dn, P3 across. Flags 1-9

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction NW



Downstream photo direction

Across Stream Photo 1

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Across stream photo direction 1

Е

Additional Stream Photos

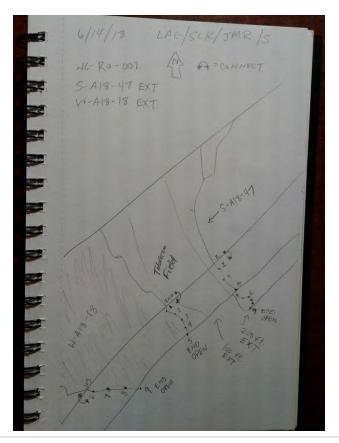






Sketch of Stream





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

S-	Δ1	R.	.5	n
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Created	2018-05-23 13:18:51 EDT by Laura Giese
Updated	2018-06-05 15:25:58 EDT by Sam Edmonds
Location	36.5033196, -79.6703885
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/23
Date2	180523

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	50
Resource ID	S-A18-50
Do you need to override the resource id?	No
Description ID - Description Colembiat Initials	Parantes Carina Muselman

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	W
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)	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)	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 Conditi	ion
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)	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 Cond	ition
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

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	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	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	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Approximately 10 feet of downstream portion is intermittent.
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

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Downstream photo direction

Across Stream Photo 1

W



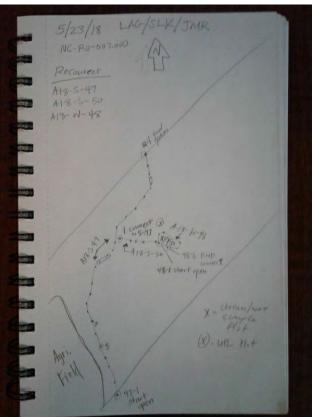
Across stream photo direction 1

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Additional Stream Photos



Sketch of Stream



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

S-A	1	2-	5	1
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Created	2018-05-24 13:05:42 UTC by Laura Giese
Updated	2018-09-20 19:11:13 UTC by Susie Gifford (SBG)
Location	36.5045246, -79.6691198
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/24
Date2	180524

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	51
Resource ID	S-A18-51
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

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

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW
Channel condition	Suboptimal
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)	1	
Average Water Width (ft)	1	
Bank to Bank (ft)	2	
Bankfull Width (ft)	2	
Probed Stream Depth	0 to 6 inches	

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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]	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 Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.2	
High suboptimal (1.2) [Right]	0	
Low suboptimal (1.1) [Right]	0	
High marginal (0.85) [Right]	0	
Low marginal (0.75) [Right]	0.65	
High poor (0.6) [Right]	0	
Low poor (0.5) [Right]	0	
Right bank total	0.85	

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
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	12.5

Stream Hydrology

Presence of baseflow	Weak
Presence of basellow	vveak

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	2.5

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
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction



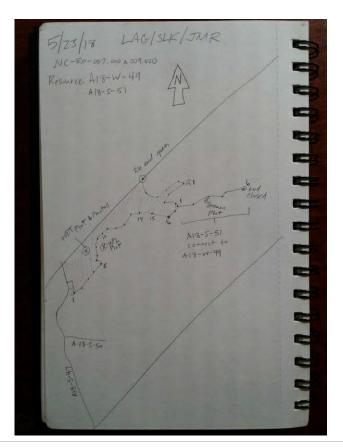
Across Stream Photo 1



Across stream photo direction 2

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Sketch of Stream



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

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Created	2018-05-24 14:20:19 EDT by Laura Giese
Updated	2018-06-11 10:16:02 EDT by Sam Edmonds
Location	36.4891615, -79.6841348
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/24
Date2	180524

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	52
Resource ID	S-A18-52
Do you need to override the resource id?	No
Pasourca ID - Pasourca Typa - Scientist Initials	- Pasource Series Number

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

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	44.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 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	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)	20
Average Water Width (ft)	15
Bank to Bank (ft)	23
Bankfull Width (ft)	23
Probed Stream Depth	6 to 12 inches

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L	C II			ıın

Left Bank Height (feet)	5
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	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]	0.35
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	6
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
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	Strong
In-channel structure	Strong
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	21

Stream Hydrology

Presence of baseflow	Strong
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	9.5

Stream Biology

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Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Weak
Fish	Strong
Crayfish	Strong
Amphibians	Moderate
Algae	Absent
Stream Biology Total	14
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Downstream portion in ROW is narrower and straightened. Stream extended 6/9/2018.

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction SW



Downstream photo direction

Across Stream Photo 1

NE



Across stream photo direction 1

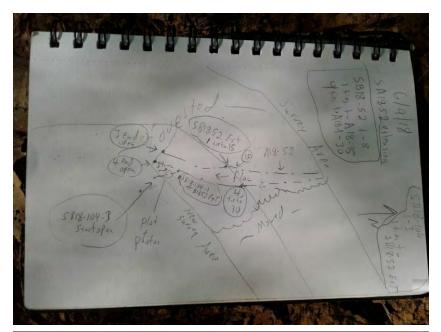
W

Additional Stream Photos



Sketch of Stream







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

S-	Δ1	IՋ	_5	5
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Created	2018-05-25 15:39:52 UTC by Laura Giese
Updated	2018-09-06 13:18:48 UTC by Will Buetow
Location	36.2824509, -79.5640092
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/25
Date2	180525

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	55
Resource ID	S-A18-55
Do you need to override the resource id?	No
Pasourca ID - Pasourca Typa - Scientist Initials	- Pasaurca Sarias Number

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

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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	Vegetated
Left Bank Riparian Buffer Condi	tion
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)	5
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated
Right Bank Riparian Buffer Conc	dition
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

Stream Geomorphology

Right bank total

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	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Absent
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	16.5

0.75

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Moderate
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	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
Regulatory Status	State Protected, Corps Jurisdictional
Ctroom Overview Depart Dhates	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

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Across Stream Photo 1



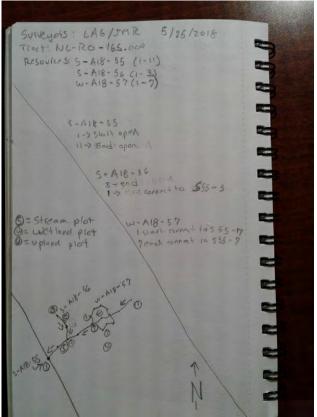
Across stream photo direction 1

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Additional Stream Photos



Sketch of Stream





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

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Created	2018-05-25 13:22:27 UTC by Laura Giese
Updated	2018-09-20 19:11:56 UTC by Susie Gifford (SBG)
Location	36.2827448, -79.5641561
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/25
Date2	180525

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	56
Resource ID	S-A18-56
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	19.25
Calculated Stream Type	Intermittent

Stream Conditions

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

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	

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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]	0.85	
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)	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]	0.85	
Low marginal (0.75) [Right]	0	
High poor (0.6) [Right]	0	
Low poor (0.5) [Right]	0	
Right bank total	0.85	

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
Second or greater order channel	No
Stream Geomorphology Total	5.5

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	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	6.75
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

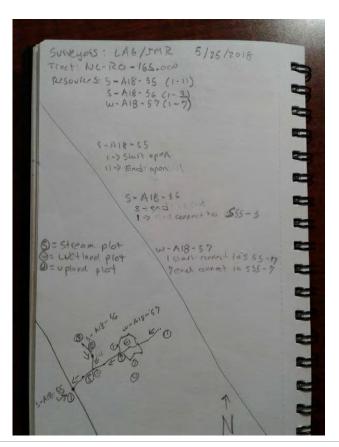
S



Across stream photo direction 1

Ε

Sketch of Stream



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

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Created	2018-05-25 15:30:24 UTC by Laura Giese
Updated	2018-08-27 15:05:27 UTC by Will Buetow
Location	36.282399, -79.5639087
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/25
Date2	180525

Joe Roy, Laura Giese
A18
Joe Roy
NA
58
S-A18-58
No

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	25.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	N
Channel condition	Poor
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

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	

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Left Bank Height (feet)	3
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]	0.2	
Low marginal (0.75) [Left]	0.6	
High poor (0.6) [Left]	0	
Low poor (0.5) [Left]	0	
Left bank total	0.8	

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
Low marginal (0.75) [Right] High poor (0.6) [Right]	0.75 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	Weak
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	8.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Moderate
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	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
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction SE



Downstream photo direction

Across Stream Photo 1

NW



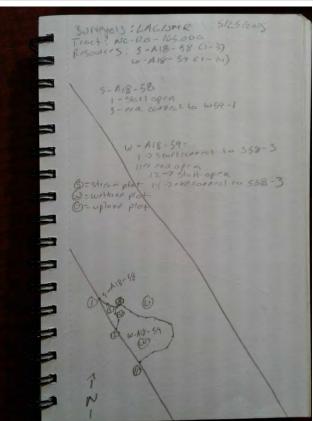
Across stream photo direction 1

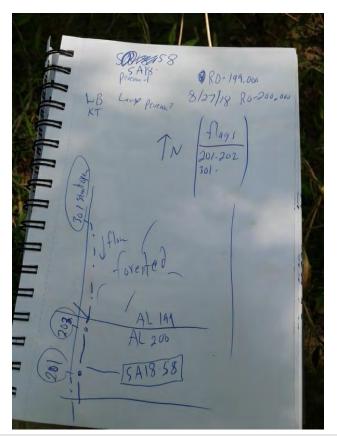
W

Additional Stream Photos



Sketch of Stream





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

S-	Δ1	۸-	60
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Created	2018-05-25 14:12:44 EDT by Laura Giese
Updated	2018-06-07 08:33:41 EDT by Sam Edmonds
Location	36.2882185, -79.5718865
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/25
Date2	180525

Jim Bolduc, Joe Roy, Laura Giese, Simon King, Tony Tredway
A10
A18
Simon King
NA
60
S-A18-60
No

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

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	32
Calculated Stream Type	Perennial

Stream Conditions

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

OHWM Width (ft)	4
Average Water Width (ft)	3
Bank to Bank (ft)	6
Bankfull Width (ft)	6
Probed Stream Depth	6 to 12 inches

Left Bank	
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Left Bank Height (feet)	3	
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]	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)	4
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
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]	0.85	
Low marginal (0.75) [Right]	0	
High poor (0.6) [Right]	0	
Low poor (0.5) [Right]	0	
Right bank total	0.85	

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	Moderate
Recent alluvial deposits	Absent
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	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

C 3	
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	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Water is murky impeding biological assessment. Area has been harvested recently
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

NE



Downstream photo direction

Across Stream Photo 1

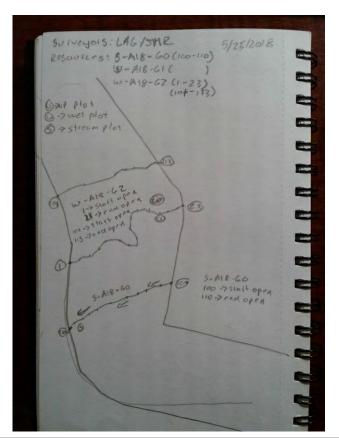
SW



Across stream photo direction 1

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Sketch of Stream



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

W	R-	Α1	۱8-	63

Created	2018-05-26 12:58:57 UTC by Laura Giese
Updated	2018-09-20 19:18:51 UTC by Susie Gifford (SBG)
Location	36.0668401, -79.3600874
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/26
Date2	180526

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
Resource Series Number	63
Resource ID	WB-A18-63
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-63
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	2.25
Calculated Stream Type	Ephemeral

Stream Conditions

Direction of Flow W

Channel Alteration

0
0
0
0
0
0
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
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Stream Hydrology

0

Stream Biology

Amphibians	Strong	
Wetland plants in streambed	FACW	
Stream Biology Total	2.25	
Regulatory Status	State Protected, Corps Jurisdictional	
Notes	Landscaped/ornamental retention pond	
Stream Overview Report Photos		

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

NW



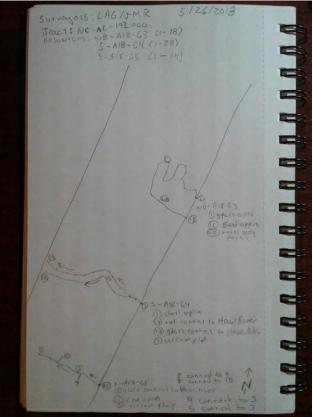
Across stream photo direction 1

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Additional Stream Photos



Sketch of Stream



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

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Created	2018-05-26 09:29:32 EDT by Laura Giese
Updated	2018-06-05 15:47:53 EDT by Sam Edmonds
Location	36.0663984, -79.3598994
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/26
Date2	180526

Field Crew	Joe Roy, Laura Giese	
Lead Scientist's Initials	A18	
GPS Surveyor	Joe Roy	
Resource Series Number	64	
Resource ID	S-A18-64	
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

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	W
Channel condition	Poor
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

OHWM Width (ft)	6	
Average Water Width (ft)	4	
Bank to Bank (ft)	8	
Bankfull Width (ft)	8	
Probed Stream Depth	6 to 12 inches	

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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]	0.2
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0.4
Low poor (0.5) [Left]	0
Left bank total	0.6

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]	0.2
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0.4
Low poor (0.5) [Right]	0
Right bank total	0.6

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	Moderate
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	18

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	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	9
Regulatory Status	State Protected, Corps Jurisdictional

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Ε



Downstream photo direction

Across Stream Photo 1

W



Additional Stream Photos

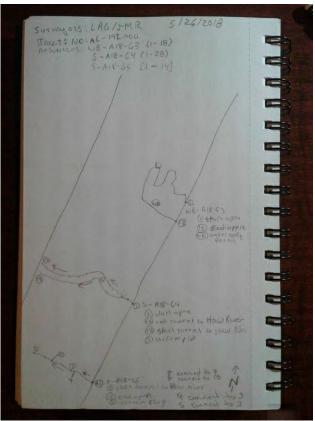








Sketch of Stream



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

ς_	Δ1	2-	65
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Created	2018-05-26 10:44:58 EDT by Laura Giese
Updated	2018-06-05 15:55:26 EDT by Sam Edmonds
Location	36.064661, -79.3608172
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/26
Date2	180526

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
Resource Series Number	65
Resource ID	S-A18-65
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	W
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

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	

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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, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0.2
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0.4
Low poor (0.5) [Left]	0
Left bank total	0.6

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

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0.2
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0.4
Low poor (0.5) [Right]	0
Right bank total	0.6

Stream Geomorphology

5 ca 6 coo. p	
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	Weak
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	9.5

Stream Hydrology

Presence of baseflow	Weak
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	7.5

Stream Biology

Absent
Absent
Weak
Absent
6.5
State Protected, Corps Jurisdictional
Upper half is ephemeral receiving stormwater from parking lot

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

Ν



Across stream photo direction 1

NE

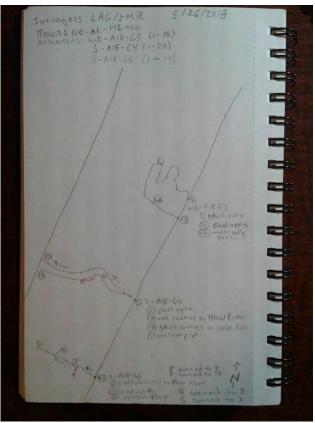
Additional Stream Photos







Sketch of Stream



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

S-	Δ1	8-	66
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Created	2018-05-26 12:57:24 EDT by Laura Giese
Updated	2018-06-05 15:56:40 EDT by Sam Edmonds
Location	36.0625536, -79.3617981
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/26
Date2	180526

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
Resource Series Number	66
Resource ID	S-A18-66
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	Slow (< 1 cfs)
Direction of Flow	SW
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	

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

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Left Bank Height (feet)	2
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]	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	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]	1.5
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

50 cam 600morphology	
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	Absent
Grade control	Absent
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	5

Presence of baseflow	Moderate
Iron oxidizing bacteria	Strong
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	10

Stream Biology

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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	Other
Stream Biology Total	6.5
Regulatory Status	State Protected, Corps Jurisdictional
Character Description	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

NE



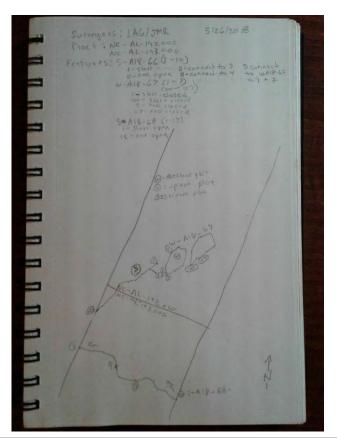
Downstream photo direction

Across Stream Photo 1

SW



Sketch of Stream



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

S-	Δ1	8-	68
	\sim 1	U-	UU

Created	2018-05-26 17:18:30 UTC by Laura Giese
Updated	2018-08-28 21:28:59 UTC by Will Buetow
Location	36.0625361, -79.3618258
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/26
Date2	180526

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Tony Tredway
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	68
Resource ID	S-A18-68
Do you need to override the resource id?	No
Pasource ID = Pasource Type - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	36
Calculated Stream Type	Perennial

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	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)	1
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

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Lete Barik			
Left Bank Height (feet)	3	3	
Left Bank Slope	25 to 35% (14 to 20 deg) Steep		
Left Erosion Potential	Moderate		
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	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
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	Weak
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	17.5

Presence of baseflow	Strong
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	9.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Absent
Stream Biology Total	9
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

S



Downstream photo direction

Across Stream Photo 1

NW



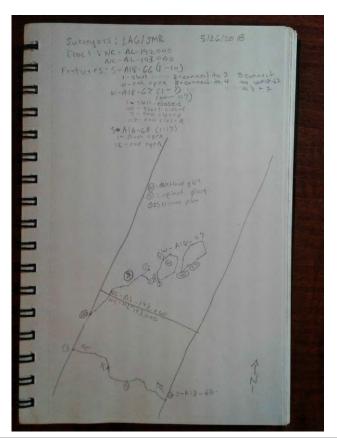
Across stream photo direction 1

W





Sketch of Stream



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

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Created	2018-05-29 09:07:11 EDT by Laura Giese
Updated	2018-06-06 10:51:01 EDT by Sam Edmonds
Location	36.1544024, -79.4381464
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/29
Date2	180529

Resource Crew Info

Joe Roy, Laura Giese, Simon King
A18
Joe Roy
NA
69
S-A18-69
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	Slow (< 1 cfs)
Direction of Flow	W
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)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

1
O to 20% (O to E dos) Nooshul suglet Coothy Sloving
0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Low
Vegetated
1
0.75
0
0
0
0
0
0.25
1
1
0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Low
Vegetated
on
0.75
0
0
0
0
0.2
0
0.95
Strong
Weak
Weak
Weak
Weak
Absent
Absent
Absent
Absent

No

9

Second or greater order channel

Stream Geomorphology Total

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
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Channel starts at Ag field. Slightly higher flow after rains. Channel braids at bottom
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

Е



Downstream photo direction

Across Stream Photo 1

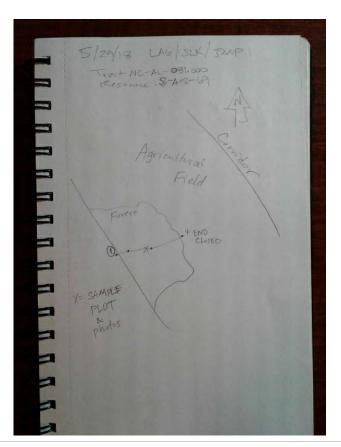
W



Across stream photo direction 1

S

Sketch of Stream



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

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Created	2018-05-29 14:39:08 UTC by Laura Giese
Updated	2018-09-10 18:59:48 UTC by Will Buetow
Location	36.1499139, -79.4300962
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/29
Date2	180529

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	70
Resource ID	S-A18-70
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

Stream Conditions

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

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

Probed Stream Depth	6 to 12 inches	
Bankfull Width (ft)	10	
Bank to Bank (ft)	10	
Average Water Width (ft)	8	
OHWM Width (ft)	9	

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Left Bank Height (feet)	4
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)	4	
Right Bank Slope	25 to 35% (14 to 20 deg) Steep	
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
Continuity of Charmer 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	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	22

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

Absent
Absent
Strong
Absent
Moderate
Moderate
Moderate
Absent
Other
12
State Protected, Corps Jurisdictional
Water is murky after heavy rains the night before

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

W

Additional Stream Photos



downstream south



upstream north



across stream west



across stream east



upstream west



downstream east

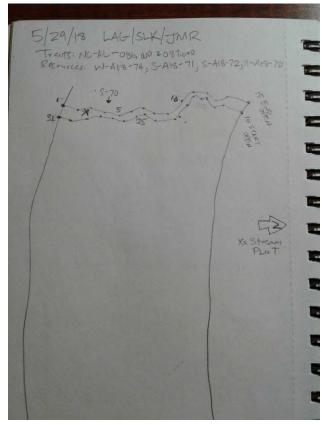


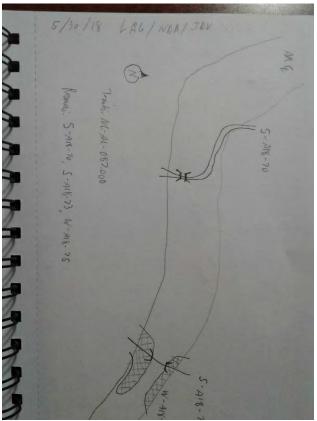
across stream north

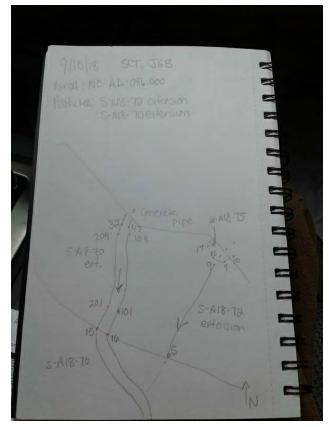


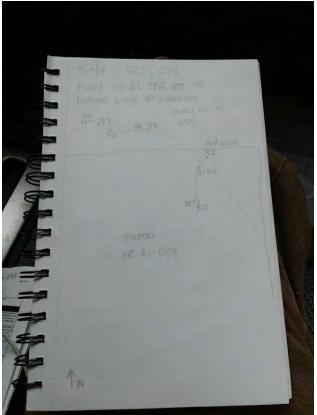
across stream south

Sketch of Stream









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

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Created	2018-06-22 17:22:10 UTC by Laura Giese
Updated	2018-07-11 15:15:24 UTC by Susie Gifford (SBG)
Location	36.1497514, -79.4295363
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/22
Date2	180622

Resource Crew Info

Laura Giese, Jake Brillo
A18
Jake Brillo
NA
71
S-A18-71
No

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	24.5
Calculated Stream Type	Intermittent

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

Left Bank

. 65	
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
Pight Pank	
Right Bank Height (fact)	1
Right Bank Height (feet)	2 to 1504 (5 to 0 dog) Moderately Slaping
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]	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	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	13.5

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

Absent	
Absent	
6	
	Absent Absent Absent Absent Absent Absent Absent Absent Absent

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction SE



Downstream photo direction

Across Stream Photo 1

NW



Across stream photo direction 1

SW

 ${\bf Environmental\ Field\ Coordinator:\ Karla\ Fortier\ GIS\ Contact:\ Dan\ Sweeney\ Project\ Manager:\ Lisa\ Walker}$

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Created	2018-05-29 15:05:39 UTC by Laura Giese
Updated	2018-09-10 18:58:23 UTC by Will Buetow
Location	36.1503142, -79.4300326
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/29
Date2	180529

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	72
Resource ID	S-A18-72
Do you need to override the resource id?	No
Pasource ID = Pasource Type - Scientist Initials	- Pasaurca Sarias Number

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	Moderate (1 - 5 cfs)
Direction of Flow	SW
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)	2
Average Water Width (ft)	2
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

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Left Bank Height (feet)	3
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	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]	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	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Weak
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	11

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
Wetland plants in streambed	Other
Stream Biology Total	8
Regulatory Status	State Protected, Corps Jurisdictional
Character Description	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

NW

Additional Stream Photos



upstream north



downstream south

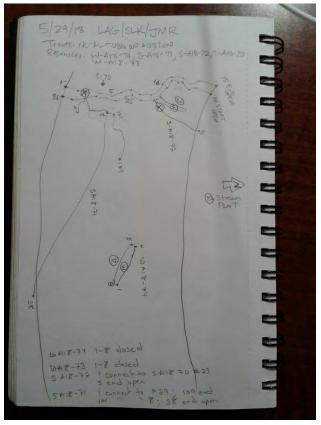


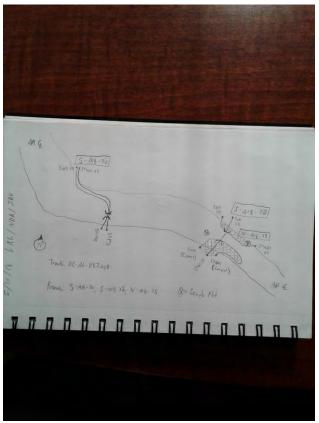
across stream west

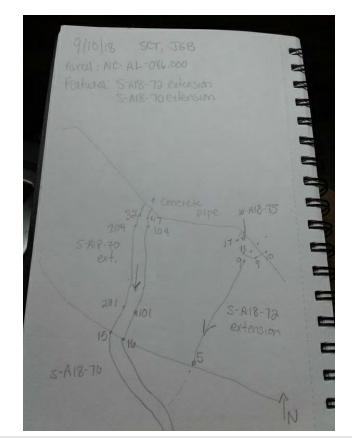


across stream east

Sketch of Stream







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Created	2018-05-29 18:04:58 UTC by Laura Giese
Updated	2018-09-20 19:12:14 UTC by Susie Gifford (SBG)
Location	36.1557968, -79.4390768
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/29
Date2	180529

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	76
Resource ID	S-A18-76
Do you need to override the resource id?	No
Pasourca ID - Pasourca Typa - Scientist Initials	- Pasaurca Sarias Number

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	SE
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)	3
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

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L	CIL	υa	ΙIN

Left Bank Height (feet)	3
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]	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, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
Optimal (1.5) [MB/H]	<u> </u>
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	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	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

Stream Biology

Weak
Absent
Weak
Absent
Absent
Absent
Weak
Absent
Other
6.5
State Protected, Corps Jurisdictional

Upstream Stream Photo



Upstream photo direction NW

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

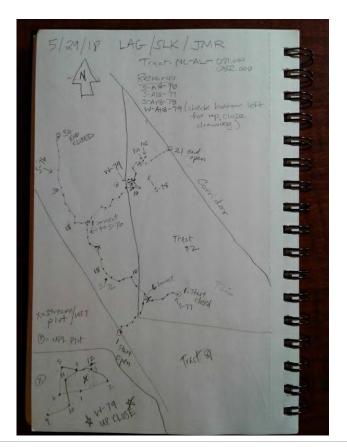
S



Across stream photo direction 1

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Sketch of Stream



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Created	2018-05-29 16:29:47 EDT by Laura Giese
Updated	2018-06-06 11:03:03 EDT by Sam Edmonds
Location	36.1557883, -79.4389359
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/29
Date2	180529

Joe Roy, Laura Giese, Simon King
A18
Joe Roy
NA
77
S-A18-77
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	SW
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)	2
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

ı	eft	Ba	nk

Left Bank Height (feet)	1
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]	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	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]	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	Weak
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	6.5

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Strong
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

Absent
Absent
Other
6
State Protected, Corps Jurisdictional

Upstream Stream Photo



Upstream photo direction

Ε

Downstream Stream Photo



Downstream photo direction

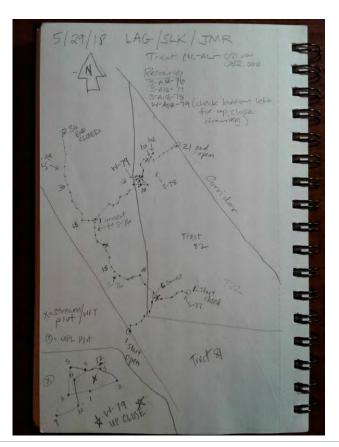
Across Stream Photo 1

SW



Across stream photo direction 1

S



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

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Created	2018-05-29 14:28:00 EDT by Laura Giese
Updated	2018-06-06 11:04:30 EDT by Sam Edmonds
Location	36.1562545, -79.4393374
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/29
Date2	180529

Joe Roy, Laura Giese, Simon King
A18
Joe Roy
NA
78
S-A18-78
No

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	27
Calculated Stream Type	Intermittent

Stream Conditions

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

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

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
Ecti Barik Sabstrate	Vegetated
Left Bank Riparian Buffer Condition	on
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
Pight Pank	
Right Bank Right Bank Height (feet)	1
Right Bank Fleight (feet)	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated
Right Bank Riparian Buffer Condit	tion
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	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Moderate

Weak

No

12.5

Natural valley

Second or greater order channel

Stream Geomorphology Total

Stream Hydrology

Presence of baseflow	Strong
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	8

Stream Biology

C 3	
Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Penart Photos	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

NE

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

SE



W	R-	Α1	IR.	-82

Created	2018-05-30 12:01:04 EDT by Laura Giese
Updated	2018-06-06 11:05:42 EDT by Sam Edmonds
Location	36.1493158, -79.4263384
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/30
Date2	180530

Field Crew	Laura Giese, Jeff Vandenberg, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	82
Resource ID	WB-A18-82
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-82
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

Stream Inventory

Stream / Waterbody Type	Pond	
Calculated Stream Score	1.5	
Calculated Stream Type	Ephemeral	

Stream Conditions

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)	8	
Bank to Bank (ft)	8	
Bankfull Width (ft)	8	
Probed Stream Depth	6 to 12 inches	

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 0 High poor (0.6) [Right] Low poor (0.5) [Right] 0 Right bank total 0 Stream Geomorphology 0 Stream Geomorphology Total Stream Hydrology Stream Hydrology Total 0

> Strong 1.5

State Protected, Corps Jurisdictional

Manmade excavated pond

Stream Biology

Stream Biology Total

Stream Overview Report Photos

Regulatory Status

Amphibians

Notes

Page:	2	of ·	4

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo

F



Downstream photo direction

W

Across Stream Photo 1



Across stream photo direction 1

Sketch of Stream

S



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Created	2018-05-31 13:33:31 UTC by Laura Giese
Updated	2018-09-20 19:13:12 UTC by Susie Gifford (SBG)
Location	36.2298569, -79.5273281
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/31
Date2	180531

Field Crew	Laura Giese, Nate Renaudin, Jeff Vandeveer
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	84
Resource ID	S-A18-84
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	36
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)	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 Moderate
Left Bank Substrate	Vegetated
Left Dalik Substrate	vegetateu
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
B: 1 - B - 1	
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	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
Tight Barill Cotal	<u> </u>
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	Weak
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	15.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Moderate
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	11

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
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

Ε

Downstream Stream Photo



Downstream photo direction

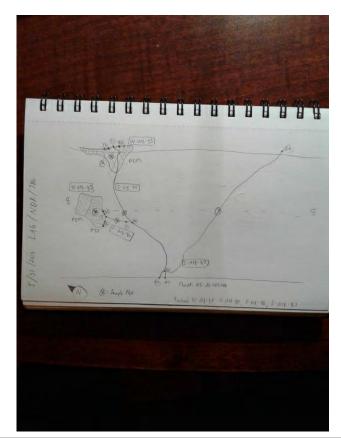
Across Stream Photo 1

W



Across stream photo direction 1

S



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Created	2018-05-31 09:46:38 EDT by Laura Giese
Updated	2018-06-07 08:49:21 EDT by Sam Edmonds
Location	36.2298592, -79.5273498
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/31
Date2	180531

Laura Giese, Nate Renaudin, Jeff Vandeveer
A18
Jeff Vandeveer
NA
86
S-A18-86
No

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	22.25
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 Beach Bire dies Beffer Condition	
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, Vegetated
Right Bank Riparian Buffer Condition	
Optimal (1.5) [Right]	0
	0
High suboptimal (1.2) [Right]	
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	Absent
Second or greater order channel	No
Stream Geomorphology Total	6
1 6	

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Moderate
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	9.5

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
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

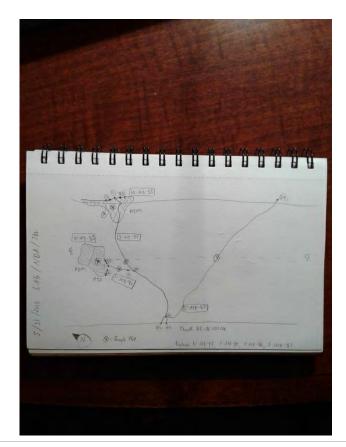
Across Stream Photo 1

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Across stream photo direction 1

W



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Created	2018-05-31 10:09:43 EDT by Laura Giese
Updated	2018-06-07 08:49:35 EDT by Sam Edmonds
Location	36.2291632, -79.526847
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/31
Date2	180531

Field Crew	Laura Giese, Nate Renaudin, Jeff Vandeveer
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	87
Resource ID	S-A18-87
Do you need to override the resource id?	No
Pasourca ID = Pasourca Type - Scientist Initials - Pasourca Sarias Number	

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

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	33
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
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)	5	
Average Water Width (ft)	4	
Bank to Bank (ft)	5	
Bankfull Width (ft)	5	
Probed Stream Depth	6 to 12 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]	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
ECT BUTH COCK	<u> </u>
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, Vegetated
Dight Bank Dinarian Buffor Condition	
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
	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	
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	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No

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	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	10
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

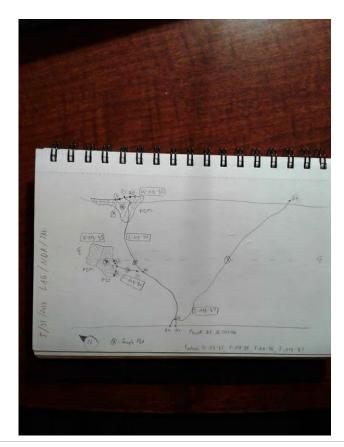
W



Across stream photo direction 1

SW





WB-A1	8-88
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Created	2018-05-31 10:55:01 EDT by Laura Giese
Updated	2018-06-06 11:31:58 EDT by Sam Edmonds
Location	36.2262207, -79.5275123
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/31
Date2	180531

Field Crew	Laura Giese, Nate Renaudin, Jeff Vandeveer
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	88
Resource ID	WB-A18-88
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-88
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 W	
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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)	60	
Average Water Width (ft)	60	
Bank to Bank (ft)	60	
Bankfull Width (ft)	60	
Probed Stream Depth	> 36 inches	

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 Conditio	on	
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	
Pight Fracion Retential	Low	
Right Erosion Potential	LOW	
Right Bank Substrate	Vegetated	
Right Bank Substrate	Vegetated	
Right Bank Substrate Right Bank Riparian Buffer Conditi	Vegetated	
Right Bank Substrate Right Bank Riparian Buffer Conditi Optimal (1.5) [Right]	Vegetated ion 0	
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Right Bank Substrate Right Bank Riparian Buffer Conditi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	Vegetated ion 0 0 0 0 0	
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Right Bank Substrate Right Bank Riparian Buffer Conditi Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	Vegetated ion 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
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Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	Vegetated ion 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	Vegetated ion 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Stream Geomorphology Total	Vegetated ion 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Stream Geomorphology Stream Geomorphology Stream Hydrology	Vegetated ion 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Stream Geomorphology Total Stream Hydrology Stream Hydrology Total	Vegetated ion 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Stream Geomorphology Stream Geomorphology Stream Hydrology Stream Hydrology Stream Biology	ion 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	

Upstream Stream Photo



Upstream photo direction

SE

Downstream Stream Photo



Downstream photo direction

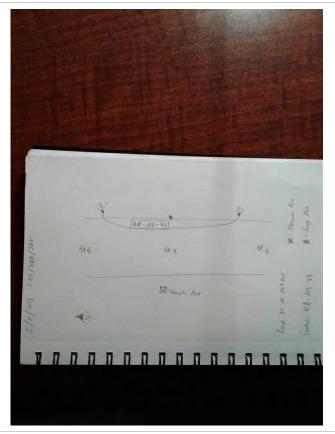
W

Across Stream Photo 1



Across stream photo direction 1

Sketch of Stream



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

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Created	2018-05-31 12:04:54 EDT by Laura Giese
Updated	2018-06-07 08:49:55 EDT by Sam Edmonds
Location	36.2257192, -79.5252354
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/31
Date2	180531

Laura Giese, Nate Renaudin, Jeff Vandeveer
A18
Jeff Vandeveer
NA
89
S-A18-89
No

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	19.5
Calculated Stream Type	Intermittent

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

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 Dead Director Deffee Condition	
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	Silt-Mud, Vegetated
Dight Bank Dinarian Buffer Condition	
Right Bank Riparian Buffer Condition Optimal (1.5) [Right]	0
	0
High suboptimal (1.2) [Right]	
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	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	8.5

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

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
State of the state	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

SE

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

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

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Created	2018-05-31 14:07:58 EDT by Laura Giese
Updated	2018-06-12 11:50:19 EDT by Sam Edmonds
Location	36.2993674, -79.5833804
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/31
Date2	180531

Field Crew	Laura Giese, Nate Renaudin, Jeff Vandeveer
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	90
Resource ID	S-A18-90
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Left Bank Height (feet)	5
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Low
Left Bank Substrate	Vegetated
Left Dalik Substrate	vegetateu
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
Dight Pank	
Right Bank Right Bank Height (feet)	4
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
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	Moderate
Grade control	Moderate
Natural valley	
Second or greater order channel	Strong Yes
Stream Geomorphology Total	16.5
Sacam decinorphology rotal	10.5

Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
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	7

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	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Flags 1-6 ephemeral, remainder is intermittent. Seepage flow
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction SW

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

NE



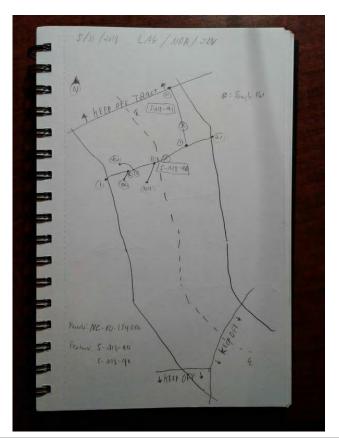
Across stream photo direction 1

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Sketch of Stream



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

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2018-05-31 18:33:30 UTC by Laura Giese
2018-08-25 21:14:55 UTC by Will Buetow
36.2996594, -79.5828057
Finalized & Approved
NextEra
MVP Southgate
18/05/31
180531

Field Crew	Laura Giese, Nate Renaudin, Jeff Vandeveer
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	91
Resource ID	S-A18-91
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	16.5
Calculated Stream Type	Ephemeral

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

Left Bank Slope 25 to 35% (14 to 20 deg) Steep Left Bank Slope 25 to 35% (14 to 20 deg) Steep Left Bank Substrate Sith-Mud, Vegetated Left Bank Riparian Buffer Condition Optimal (1.5) [Left] 0 Optimal (1.2) [Left] 0 High suboptimal (1.2) [Left] 0 High marginal (0.85) [Left] 0 Low suboptimal (1.2) [Left] 0 High poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Right Bank Right Bank Right Bank Height (feet) 3 Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Low suboptimal (1.2) [Right] 0 Low as suboptimal (1.2) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.6) [Right] 0 Right bank total 0 Stream Geomorphology Continuity of channel bed and bank Strong
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 Low marginal (0.75) [Left] 0 High poor (0.5) [Left] 0 Low poor (0.5) [Right] 0 Low
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 Low poor (0.5) [Left] 0 Right Bank Right Bank Height (feet) 3 Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Bonk Substrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Optimal (1.5) [Right] 0 Optimal (1.5) [Right] 0 Uow suboptimal (1.1) [Right] 0 Uow suboptimal (1.1) [Right] 0 Uow suboptimal (1.2) [Right] 0 Uow suboptimal (1.2) [Right] 0 Uow suboptimal (1.5) [Right] 0 Uow marginal (0.75) [Right] 0 Uow poor (0.5) [Right] 0 Cow poor
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 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 Low Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Optimal (1.5) [Right] 0 High suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Right Decore (0.5) [Right] 0 Right poor (0.6) [Right] 0 Right poor (0.6) [Right] 0 Right poor (0.6) [Right] 0 Right bank total 0 Stream Geomorphology
Optimal (1.5) [Left] 0 High suboptimal (1.2) [Left] 0 Low suboptimal (0.75) [Left] 0 High marginal (0.75) [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 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 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Stream Geomorphology Stream Geomorphology
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 Eank Slope 25 to 35% (14 to 20 deg) Steep Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Dotimal (1.5) [Right] 0 Low suboptimal (1.2) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low more (0.6) [Right] 0 Low poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 Stream Geomorphology Stream Geomorphology
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 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 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Stream Geomorphology Stream Geomorphology
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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 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 Low marginal (0.75) [Right] 0 High poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 Stream Geomorphology
Right Bank Height (feet) Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Erosion Potential Low Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] O High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] O High marginal (0.85) [Right] Low marginal (0.75) [Right] O High poor (0.6) [Right] O Stream Geomorphology
Right Bank Height (feet) Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Erosion Potential Low Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] O High suboptimal (1.2) [Right] O Low suboptimal (1.1) [Right] O High marginal (0.85) [Right] Low marginal (0.75) [Right] O High poor (0.6) [Right] O Stream Geomorphology
Right Bank Slope 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 Stream Geomorphology
Right Erosion Potential 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 Low poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 Stream Geomorphology
Right Bank Substrate 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 Stream Geomorphology
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
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
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
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
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
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
High poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 Right bank total 0 Stream Geomorphology
Low poor (0.5) [Right] 0 Right bank total 0 Stream Geomorphology
Right bank total 0 Stream Geomorphology
Stream Geomorphology
Sinuosity of channel along thalweg Weak
In-channel structure Weak
Particle size of stream substrate Weak Weak
Active or relict floodplain Absent
Depositional bars or benches Absent Absent
Recent alluvial deposits Absent Headcuts Moderate
Grade control Moderate Strong
Natural valley Strong
Second or greater order channel No
Stream Geomorphology Total 10.5

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Strong
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	No
Stream Hydrology Total	0

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

NW

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

SE



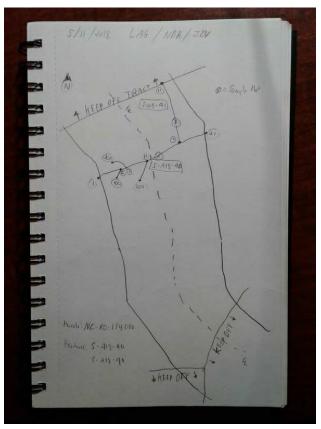
Across stream photo direction 1

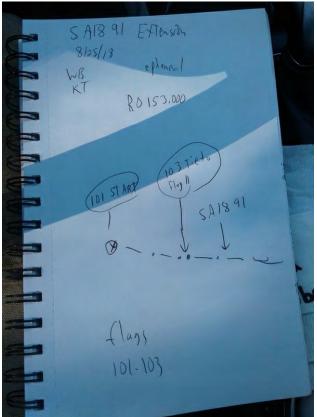
S

Additional Stream Photos



Sketch of Stream





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

S-	Δ1	ΙQ	_Q	2
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Created	2018-06-01 13:37:51 UTC by Laura Giese
Updated	2018-09-06 15:32:22 UTC by Joseph Roy
Location	36.2949997, -79.5775432
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/01
Date2	180601

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	92
Resource ID	S-A18-92
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	16.5
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)	1	
Average Water Width (ft)	1	
Bank to Bank (ft)	3	
Bankfull Width (ft)	3	
Probed Stream Depth	0 to 6 inches	

Left Bank Height (feet)	2
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated
Left bank Substrate	vegetateu
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
D: 1 / D	
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	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
Tight Barill Cocal	
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	No
Stream Geomorphology Total	9

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

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
Notes	Extension flags 1 and 2
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

SE

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

Ν



Across stream photo direction 1

Е

Additional Stream Photos



upstream-South

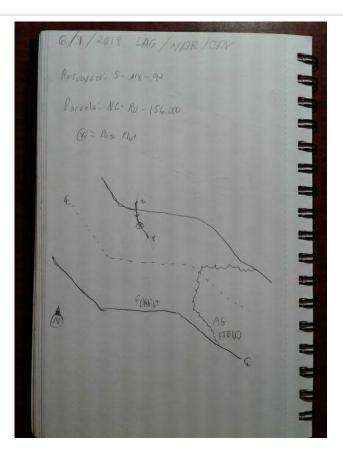


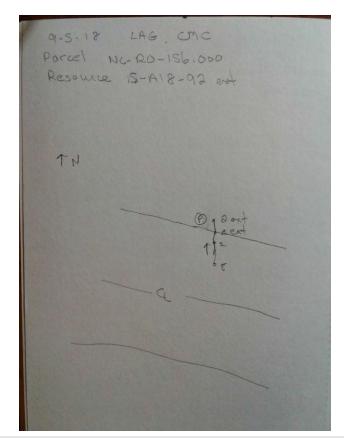
dnstream, North



Across, West

Sketch of Stream





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

S-	Δ1	Q.	.93
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Created	2018-06-01 11:28:12 EDT by Laura Giese
Updated	2018-06-07 08:51:03 EDT by Sam Edmonds
Location	36.427655, -79.6600729
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/01
Date2	180601

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	93
Resource ID	S-A18-93
Do you need to override the resource id?	No
Pasourca ID = Pasourca Type - Scientist Initials - Pasourca Series Number	

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

Left Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping Left Bank Substrate SIIt-Mud, Vegetated Left Bank Riparian Buffer Condition Optimal (1.5) [Left] 0 Optimal (1.2) [Left] 0 Low suboptimal (1.2) [Left] 0 Low suboptimal (1.2) [Left] 0 Low marginal (0.85) [Left] 0 Ligh marginal (0.85) [Left] 0 Ligh poor (0.5) [Left] 0 Ligh poor (0.5) [Left] 0 Left bank total 0 Right Bank Right Bank Height (feet) 3 Right Bank Substrate 3 Silt-Mud Right Bank Substrate Silt-Mud Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Low marginal (0.75) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (1.5) [Right] 0 Low suboptimal (0.75) [Right] 0 Low suboptimal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Stream Geomorphology Continuity of channel along thalweg Weak Chi-channel structure Weak Active or relict floodplain Absent Headouts Absent		
Left Bank Substrate Low Left Bank Riparian Buffer Condition Common Control (1.5) [Left] 0 Optimal (1.5) [Left] 0 0 High suboptimal (1.1) [Left] 0 0 Low suboptimal (1.1) [Left] 0 0 High marginal (0.85) [Left] 0 0 Low poor (0.5) [Left] 0 0 Low poor (0.5) [Left] 0 0 Left bank total 0 0 Left bank total 0 0 Right Bank 0 0 Right Bank Substrate 3 15 to 25% (9 to 14 deg) Steeply Sloping Right Erosion Potential Low 1 Right Bank Riparian Buffer Condition 0 1 Optimal (1.5) [Right] 0 1 High suboptimal (1.2) [Right] 0 1 Low suboptimal (1.1) [Right] 0 1 Low marginal (0.85) [Right] 0 1 Low marginal (0.85) [Right] 0 1 Low poor (0.5) [Right] 0 1 Low	Left Bank Height (feet)	2
Left Bank Riparian Buffer Condition Optimal (1.5) [Left] 0 High suboptimal (1.2) [Left] 0 Low suboptimal (1.2) [Left] 0 Low booptimal (0.1) [Left] 0 High marginal (0.85) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 0 Right Bank 0 Right Bank Height (feet) 3 Right Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping Right Bank Substrate Silt-Mud Right Bank Riparian Buffer Condition 0 Optimal (1.5) [Right] 0 High suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Unwastinal (0.75) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low pro (0.5) [Right] 0 Low pro (0.5) [Right] 0 Stream Geomorphology Continuity of channel ded and bank Moderate <t< td=""><td></td><td></td></t<>		
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 Low poor (0.5) [Left] 0 Low poor (0.5) [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 Bank Substrate Silt-Mud Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Optimal (1.5) [Right] 0 High suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.75) [Right] 0 High poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 High poor (0.6) [Right] 0 Low poor (0.5) [Right		
Optimal (1.5) Left] 0 High suboptimal (1.2) Left] 0 Low suboptimal (1.2) Left] 0 High marginal (0.55) 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) Right Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping Right Bank Substrate Silt-Mud Right Bank Riparian Buffer Condition Optimal (1.5) Right] 0 Low suboptimal (1.5) Right] 0 Low suboptimal (1.1) Right] 0 Low marginal (0.85) Right) 0 Low marginal (0.85) Right) 0 Low marginal (0.75) Right) 0 Low marginal (0.75) Right) 0 Low pro (0.5) Right) <t< td=""><td>Left Bank Substrate</td><td>Silt-Mud, Vegetated</td></t<>	Left Bank Substrate	Silt-Mud, Vegetated
High suboptimal (1.2) [Left] 0 Low suboptimal (1.1) [Left] 0 High marginal (0.285) [Left] 0 Low marginal (0.75) [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 Bank Riparian Buffer Condition 0 Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 0 High suboptimal (1.1) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg Weak In-channel structure Weak Particle size of stream substrate Weak Active or relict floodplain Ab	Left Bank Riparian Buffer Condition	
Low suboptimal (1.1) [Left] 0 High 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) Right Bank Height (feet) Right Bank Slope Right Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping Right Bank Substrate Silt-Mud Right Bank Riparian Buffer Condition Optimal (1.5) [Right] Optimal (1.2) [Right] 0 Low suboptimal (1.2) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.6) [Right] 0 Low poor (0.6) [Right] 0 Continuity of channel bed and bank Moderate Sinuosity of channel bed and bank Moderate Sinuosity of channel structure Weak Particle size of stream substrate Weak Particle size of stream substrate Weak	Optimal (1.5) [Left]	0
High marginal (0.75) [Left] 0 Low marginal (0.75) [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 Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping Right Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping Right Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping Right Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping Right Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping Right Bank Sloptarial 1.0 Low Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Optimal (1.9) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Condinative of (0.6) [Right] 0 Condinative of (0.6) [Right] 0 Continuity of channel bed and bank Moderate Sinuosity of channel bed and bank Moderate Sinuosity of channel structure Weak Particle size of stream substrate Weak Active or relict floodplain Absent Depositional bars or benches Absent Headcuts Absent Grade control Weak	High suboptimal (1.2) [Left]	0
Low marginal (0.75) [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 Bank Substrate Silt-Mud Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low more (0.5) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Stream Geomorphology O Continuity of channel bed and bank Moderate Sinuosity of channel along thalweg Weak In-channel structure Weak Particle size of stream substrate Weak Perticle size of stream substrate Absent Depositional bars or benches Absent Recent alluvial deposits Absent	Low suboptimal (1.1) [Left]	0
High poor (0.6) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 0 Right Bank Right Bank Right Bank Height (feet) 3 Right Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping Right Forsion 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 Low suboptimal (1.1) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [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 Recent alluvial deposits Absent Recent alluvial deposits Absent Headcuts Absent	High marginal (0.85) [Left]	0
Low poor (0.5) [Left] 0 Right Bank 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 Riparian Buffer Condition Optimal (1.5) [Right] 0 Chimal (1.2) [Right] 0 Low suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Stream Geomorphology Continuity of channel along thalweg Weak In-channel structure Weak Active or relict floodplain Absent Recent alluvial deposits Absent Headcuts Absent Grade control Weak Right Bank Reight (1.2) (Low marginal (0.75) [Left]	0
Right Bank Right Bank Height (feet) 3 Right Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping 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 Low poor (0.5) (Right) 0 Low poor (0.5) (Right) 0 Stream Geomorphology 0 Continuity of channel along thalweg Weak In-channel structure Weak Particle size of stream substrate Weak Active or relict floodplain Absent Pecont alluvial deposits Absent Headcuts Absent Grade control Weak	High poor (0.6) [Left]	0
Right Bank Right Bank Height (feet) 3 Right Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping Right Fosion 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 (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 Stream Geomorphology Continuity of channel along thalweg Weak In-channel structure Weak Particle size of stream substrate Weak Active or relict floodplain Absent Recent alluvial deposits Absent Headcuts Absent Grade control Weak	Low poor (0.5) [Left]	0
Right Bank Height (feet) Right Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping Right Erosion Potential Low Right Bank Riparian Buffer Condition Optimal (1.5) [Right] Optimal (1.5) [Right] Outline Suboptimal (1.1) [Right] Outline Marginal (0.85) [Right] Outline Marginal (0.85) [Right] Outline Marginal (0.85) [Right] Outline Marginal (0.75) [Right	Left bank total	0
Right Bank Height (feet) Right Bank Slope 15 to 25% (9 to 14 deg) Steeply Sloping Right Erosion Potential Low Right Bank Riparian Buffer Condition Optimal (1.5) [Right] Optimal (1.5) [Right] Outline Suboptimal (1.1) [Right] Outline Marginal (0.85) [Right] Outline Marginal (0.85) [Right] Outline Marginal (0.85) [Right] Outline Marginal (0.75) [Right	Dicht Book	
Right Bank Slope Right Erosion Potential Low Right Bank Riparian Buffer Condition Optimal (1.5) [Right] Optimal (1.2) [Right] Optima		
Right Erosion Potential 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 (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Stream Geomorphology Continuity of channel bed and bank Moderate Sinuosity of channel along thalweg Weak In-channel structure Weak Active or relict floodplain Absent Depositional bars or benches Absent Recent alluvial deposits Absent Grade control Weak Grade control Weak		
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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 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		
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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 Active or relict floodplain Absent Depositional bars or benches Absent Headcuts Absent Grade control Weak Grade control Weak Grade control Weak	Right Bank Riparian Buffer Condition	
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 Absent Headcuts Absent Grade control Weak	<u> </u>	
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 Absent Headcuts Absent Grade control Weak	High suboptimal (1.2) [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 Absent Headcuts Absent Grade control Weak	Low suboptimal (1.1) [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 Absent Headcuts Absent Grade control Weak	High marginal (0.85) [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 Absent Headcuts Absent Grade control Weak	Low marginal (0.75) [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 Absent Headcuts Absent Grade control Weak	High poor (0.6) [Right]	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 Absent Headcuts Absent Grade control Weak		0
Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Weak Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Absent Headcuts Absent Grade control Moderate Moderate Moderate Moderate Moderate Meak Moderate Meak Absent Weak	Right bank total	0
Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Weak Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Absent Headcuts Absent Grade control Moderate Moderate Moderate Moderate Moderate Meak Moderate Meak Absent Weak	Stroam Goomorphology	
Sinuosity of channel along thalweg In-channel structure Weak Particle size of stream substrate Weak Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Grade control Weak Weak Weak Weak Weak Weak	. 9	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	•	
Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Absent Grade control Weak	, , , , , , , , , , , , , , , , , , ,	
Active or relict floodplain Absent Depositional bars or benches Absent Recent alluvial deposits Absent Headcuts Absent Grade control Weak		
Depositional bars or benches Recent alluvial deposits Absent Headcuts Grade control Weak		
Recent alluvial deposits Headcuts Absent Grade control Weak		
Headcuts Absent Grade control Weak		
Grade control Weak	·	
All and the second of the seco		
Natural valley Moderate	<u> </u>	
Second or greater order channel No		
Stream Geomorphology Total 6.5	Stream Geomorphology Total	6.5

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

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

S

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

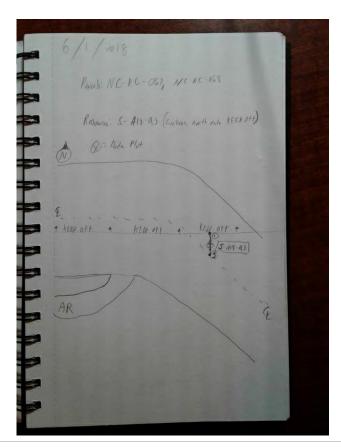
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Across stream photo direction 1

Ε

Sketch of Stream



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

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Created	2018-06-01 11:48:14 EDT by Laura Giese
Updated	2018-06-07 08:51:37 EDT by Sam Edmonds
Location	36.4264716, -79.6597033
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/01
Date2	180601

Laura Giese, Jeff Vandeveer, Nate Renaudin
A18
Jeff Vandeveer
NA
94
S-A18-94
No

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	27
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)	3
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

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	on	
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 Pight Bank Piparian Buffer Condit	Silt-Mud	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right]	tion 0	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right]	0 0	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	0 0 0	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	0 0 0 0	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	0 0 0 0 0	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0 0 0	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0 0 0 0 0	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0 0 0	
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Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	0 0 0 0 0 0 0	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 0 0 0 0 0 0 0 0	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	tion 0 0 0 0 0 0 0 0 0 0 0 0 Strong	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	O	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	O	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	O	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	O	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	O	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	O	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	Strong Moderate Moderate Strong Absent Absent Moderate Moderate Moderate Moderate Moderate	
Right Bank Riparian Buffer Condit Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Grade control	Strong Moderate Strong Absent Absent Moderate Moderate Moderate Moderate Moderate Moderate Moderate Moderate Moderate	

Presence of baseflow	Weak
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	5.5

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	Other
Stream Biology Total	7
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Switch to perennial at flag 39

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction NW

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

SE



Across stream photo direction 1

SW

Additional Stream Photos









Sketch of Stream



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

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Created	2018-06-01 18:00:35 UTC by Laura Giese
Updated	2018-09-20 19:19:29 UTC by Susie Gifford (SBG)
Location	36.4247802, -79.6570974
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/01
Date2	180601

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	96
Resource ID	WB-A18-96
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-96
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

irection 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)	260
Average Water Width (ft)	260
Bank to Bank (ft)	260
Bankfull Width (ft)	260
Probed Stream Depth	> 36 inches

Left Bank Height (feet)	3
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
Dight Dank	
Right Bank	2
Right Bank Height (feet)	2
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
- r	
Stream Hydrology	
Stream Hydrology Total	0
Stream Biology	
Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo

N



Downstream photo direction

S

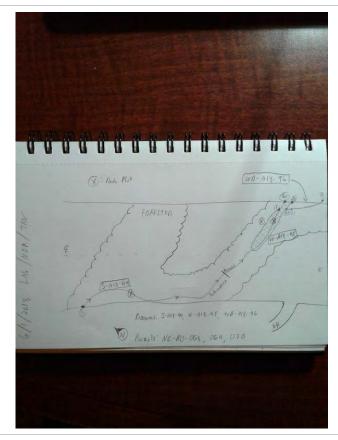
Across Stream Photo 1



Across stream photo direction 1

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Sketch of Stream



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

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Created	2018-06-02 08:54:02 EDT by Laura Giese
Updated	2018-06-07 08:52:04 EDT by Sam Edmonds
Location	36.4235823, -79.6558393
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	97
Resource ID	S-A18-97
Do you need to override the resource id?	No
Pasourca ID - Pasourca Type - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	36.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
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)	3	
Average Water Width (ft)	2	
Bank to Bank (ft)	5	
Bankfull Width (ft)	5	
Probed Stream Depth	0 to 6 inches	

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]	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				
23.5 24.11. 66641	-				
Right Bank					
Right Bank Height (feet)	5				
Right Bank Slope	25 to 35% (14 to 20 deg) Steep				
Right Erosion Potential	Moderate				
Right Bank Substrate	Silt-Mud, Vegetated				
Disht Book Dispuise Duffer Condition					
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	Strong				
Active or relict floodplain	Absent				
Depositional bars or benches	Weak				
Recent alluvial deposits	Absent				
Headcuts	Moderate				
Grade control	Moderate				
Natural valley	Strong				
Second or greater order channel	Yes				

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	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	9
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

SW

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

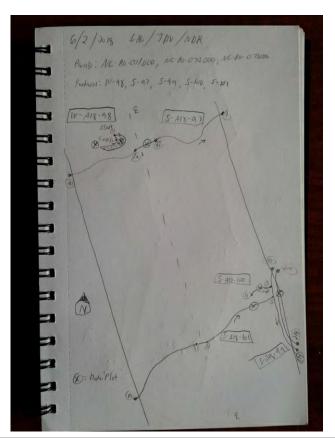
NE



Across stream photo direction 1

SE

Sketch of Stream



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

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Created	2018-06-02 14:10:47 UTC by Laura Giese
Updated	2018-09-20 19:13:30 UTC by Susie Gifford (SBG)
Location	36.4222586, -79.6548795
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Laura Giese, Jeff Vandeveer, Nate Renaudin
A18
Jeff Vandeveer
NA
99
S-A18-99
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	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)	9
Average Water Width (ft)	6
Bank to Bank (ft)	11
Bankfull Width (ft)	11
Probed Stream Depth	6 to 12 inches

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, 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
Dight Dank	
Right Bank	
Right Bank Height (feet)	5
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply 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	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
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	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	Weak
Amphibians	Weak
Algae	Absent
Stream Biology Total	10.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction N

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

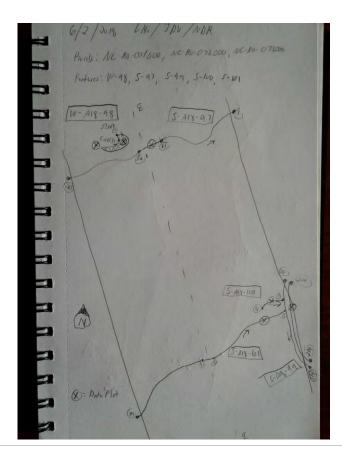
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Across stream photo direction 1

SW

Sketch of Stream



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

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Created	2018-06-02 10:42:35 EDT by Nathan Renaudin
Updated	2018-06-07 08:53:05 EDT by Sam Edmonds
Location	36.4222846, -79.6548164
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	100
Resource ID	S-A18-100
Do you need to override the resource id?	No
Passuurca ID = Passuurca Tyna - Scientist Initials - Passuurca Sarias Number	

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

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	15.5
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	Е

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)	4	
Bankfull Width (ft)	4	
Probed Stream Depth	0 to 6 inches	

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated
Left Dalik Substitute	vegetateu
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
Dight Pank	
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	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	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 Crade control	Weak
Grade control	Weak
Natural valley	Weak
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	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

W

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

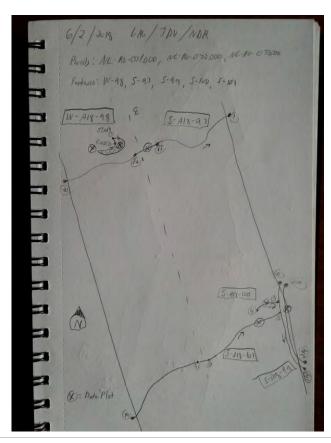
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Across stream photo direction 1

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Sketch of Stream



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

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2018-06-02 10:50:19 EDT by Nathan Renaudin
2018-06-07 08:53:20 EDT by Sam Edmonds
36.4222878, -79.6548632
Finalized & Approved
NextEra
MVP Southgate
18/06/02

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	101
Resource ID	S-A18-101
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	32
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)	2	
Average Water Width (ft)	1	
Bank to Bank (ft)	3	
Bankfull Width (ft)	3	
Probed Stream Depth	0 to 6 inches	

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
Ecre Barin Substrace	Site Mad, 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
Pight Pank	
Right Bank Height (feet)	2
Right Bank Height (feet)	2 to 15% (5 to 0 dag) Moderately Slaping
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	Weak
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	17
22	

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
Wetland plants in streambed	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
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Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

W

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

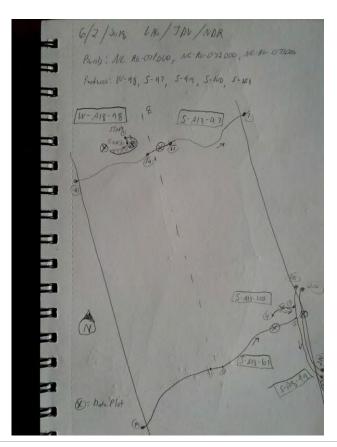
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Across stream photo direction 1

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Sketch of Stream



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

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Created	2018-06-02 16:57:13 UTC by Laura Giese
Updated	2018-09-20 18:59:01 UTC by Susie Gifford (SBG)
Location	36.3416606, -79.6058149
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	102
Resource ID	S-A18-102
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	36
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
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)	3	
Average Water Width (ft)	3	
Bank to Bank (ft)	5	
Bankfull Width (ft)	5	
Probed Stream Depth	0 to 6 inches	

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Sand, Vegetated
Left bank Substrate	Janu, vegetateu
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
Dight Pank	
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]	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
	Strong Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure 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	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	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Moderate
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	9.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Adjacent hillside recently harvested
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

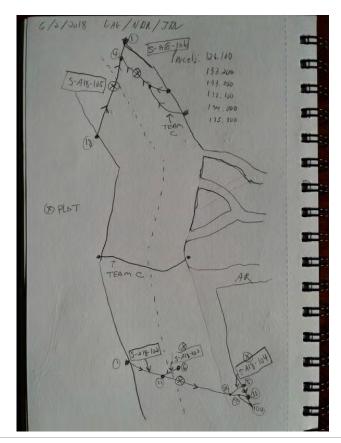
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Across stream photo direction 1

NE

Sketch of Stream



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

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Created	2018-06-02 13:11:49 EDT by Laura Giese
Updated	2018-06-07 08:54:06 EDT by Sam Edmonds
Location	36.3413866, -79.6052847
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

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

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	13
Calculated Stream Type	Ephemeral

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

Left Bank Slope Left Bank Slope Left Bank Riparian Buffer Condition Pigh suboptimal (1.2) [Left] O Pigh marginal (0.35) [Left] O Right Bank Riparian Buffer Condition O Right Bank Riparian (1.2) [Left] O Low suboptimal (1.1) [Left] O Pigh marginal (0.35) [Left] O Right Bank Riparian Buffer Condition O Right Bank Riparian Buffer Condition Right Bank Riparian (0.35) [Left] O Right Bank Riparian Buffer Condition O Right Bank Slope Right Bank Slope Right Bank Riparian Buffer Condition O Right Bank Riparian Buffer Condition O Right Bank Riparian Buffer Condition Right Bank Riparian Buffer Condition O Right Bank Riparian Buffer Condition Right Bank Riparian Buffer Condition O Right Bank Riparian Bu	Left Bank Height (feet)	1
Left Bank Riparian Buffer Condition Vegetated Optimal (1.5) [Left] 0 High suboptimal (1.5) [Left] 0 Low marginal (0.85) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 0 Right Bank Right (feet) 1 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition 0 Optimal (1.5) [Right] 0 High suboptimal (1.2) [Right] 0 Low suboptimal (1.2) [Right] 0 Low suboptimal (1.2) [Right] 0 Low poor (0.5) [Right] 0 Continuity of channel bed and bank Moderate Simuosity of channel		
Left Bank Riparian Buffer Condition Optimal (1.5) Left) 0 High suboptimal (1.2) Left) 0 Low suboptimal (1.1) Left) 0 Ligh marginal (0.85) [Left) 0 Low marginal (0.75) [Left) 0 Low poor (0.5) [Left) 0 Low poor (0.5) [Left) 0 Low poor (0.5) [Left) 0 Left bank total 0 Right Bank Height (feet) 1 Right Bank Slope 8 to 1596 (5 to 9 deg) Moderately Sloping Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition 0 Optimal (1.5) [Right) 0 Optimal (1.5) [Right) 0 High suboptimal (1.2) [Right) 0 Low suboptimal (1.2) [Right) 0 Low marginal (0.25) [Right) 0 Low poor (0.5) [Right) 0 Right bank total 0	·	
Ceft Bank Riparian Buffer Condition Optimal (1.5) [Left]		
Optimal (1.5) [Left] 0 High suboptimal (1.1) [Left] 0 Low suboptimal (1.1) [Left] 0 High marginal (0.85) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 0 Right Bank N Right Bank Height (feet) 1 Right Bank Subsea 8 to 15% (5 to 9 deg) Moderately Sloping 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 Low suboptimal (1.1) [Right] 0 Low suboptimal (1.2) [Right] 0 High poor (0.5) [Right] 0 High poor (0.5) [Right] 0 High poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Continuity of channel bed and bank Moderate Sinuosity of channel bed and bank Moderate Continuity of channel structure	Left bank Substrate	vegetateu
Filiph 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 1 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Substrate Vegetated Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] Optimal (1.2) [Right] 0 Low suboptimal (1.2) [Right] 0 Low suboptimal (1.2) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Cortinuity of channel bed and bank Moderate Sinuosity of channel bed and bank Moderate Sinuosity of channel structure Weak Particle size of stream substrate Absent <td>Left Bank Riparian Buffer Condition</td> <td></td>	Left Bank Riparian Buffer Condition	
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 (0.6) [Left] 0 Left bank total 0 Right Bank Right Bank Height (feet) 1 Right Bank Stope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.2) [Right] High suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.6) [Right]<	Optimal (1.5) [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 total Right Bank Height (feet) 1 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Substrate Low Right Bank Riparian Buffer Condition Vegetated Right Bank Riparian Buffer Condition 0 Unimal (1.5) [Right] 0 High suboptimal (1.2) [Right] 0 Low suboptimal (1.2) [Right] 0 High poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 High poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 Right bank total 0 Stream Geomorphology Continuity of channel adong thalwag Meak Inchannel structure Weak Active or relict floodplain Absent Depositional bars or benches Absent Recent alluvial deposits Absent	High suboptimal (1.2) [Left]	0
Low marginal (0.75) (Left) 0 Low poor (0.5) (Left) 0 Left bank total 0 No Right Bank Right Bank Height (feet) 1 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Substrate Low Right Bank Riparian Buffer Condition Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) (Right) 0 High suboptimal (1.2) (Right) 0 Low suboptimal (1.2) (Right) 0 Low marginal (0.85) (Right) 0 Low marginal (0.75) (Right) 0 Low poor (0.5) (Right) 0 Low poor (0.5) (Right) 0 Stream Geomorphology Continuity of channel along thalweg Weak In-channel structure Weak Active or relict floodplain Absent Persistional bars or benches Absent Recent alluvial deposits Absent <t< td=""><td>Low suboptimal (1.1) [Left]</td><td>0</td></t<>	Low suboptimal (1.1) [Left]	0
High poor (0.6) [Left] 0 Low poor (0.5) [Left] 0 Right Bank	High marginal (0.85) [Left]	0
Low poor (0.5) [Left] 0 Right Bank V 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 (1.1) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.25) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Stream Geomorphology V Stream Geomorphology Veak In-channel along thalweg Moderate In-channel structure Weak Particle size of stream substrate Weak Active or relict floodplain Absent Recent alluvial deposits Absent Readcuts Absent Grade control Meak Natural valley Absent	Low marginal (0.75) [Left]	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 Chimal (1.2) [Right] 0 Chimal (1.3) [Right] 0 Chimal (1.3) [Right] 0 Chimarginal (0.85) [Right] 0 Chow suboptimal (1.1) [Right] 0 Chow suboptimal (1.2) [Right] 0 Chow marginal (0.75) [Right] 0 Chow marginal (0.75) [Right] 0 Chow marginal (0.75) [Right] 0 Chow poor (0.6) [Right] 0 Chow poor (0.6	High poor (0.6) [Left]	0
Right Bank Right Bank Height (feet) Right Bank Height (feet) Right Bank Slope Right Erosion Potential Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] Optimal (1.2) [Right] Optimal (1.2) [Right] Optimal (0.25)	Low poor (0.5) [Left]	0
Right Bank Height (feet) 8 to 15% (5 to 9 deg) Moderately Sloping Right Erosion Potential Low Right Bank Slubstrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Clow suboptimal (1.2) [Right] 0 Clow suboptimal (1.1) [Right] 0 Clow suboptimal (0.1) [Right] 0 Clow suboptimal (0.75) [Right] 0 Clow poor (0.5) [Right] 0 Clow	Left bank total	0
Right Bank Height (feet) 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 Chimal (1.2) [Right] 0 Chimal (1.5) [Right] 0 Chimal Right Bank Riparian Buffer Condition Right Bank Riparian Buffer Condition Right Managinal (0.85) [Right] 0 Chimal Right Bank Riparian Buffer Condition Riparian R	Diaht Donle	
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 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Right bank total 0 Stream Geomorphology Continuity of channel bed and bank Moderate Sinuosity of channel structure Weak Particle size of stream substrate Weak Active or relict floodplain Absent Recent alluvial deposits Absent Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel No		
Right Erosion Potential Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Low suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 High marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Right bank total 0 Stream Geomorphology Continuity of channel along thalweg Weak In-channel structure Weak Active or relict floodplain Absent Depositional bars or benches Absent Recent alluvial deposits Absent Grade control Weak Natural valley Absent Second or greater order channel Second		
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 High suboptimal (1.1) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low more (0.6) [Right] 0 Low poor (0.6) [Right] 0 Right bank total 0 Stream Geomorphology Continuity of channel and bank Moderate Sinuosity of channel along thalweg 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		
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 (0.85) [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 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		
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 Low marginal (0.75) [Right] 0 High poor (0.6) [Right] 0 Low poor (0.6) [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 Absent Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel No	Right Bank Substrate	Vegetated
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 Low marginal (0.75) [Right] 0 High poor (0.6) [Right] 0 Low poor (0.6) [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 Absent Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel No	Right Bank Riparian Buffer Condition	
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 Absent Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel No	<u> </u>	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 Absent Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel No		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 Absent Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel No	Low suboptimal (1.1) [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 Absent Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel No	High marginal (0.85) [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 Absent Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel No	Low marginal (0.75) [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 Absent Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel No	High poor (0.6) [Right]	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 Absent Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel No	Low poor (0.5) [Right]	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 Absent Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel No	Right bank total	0
Continuity of channel bed and bank Sinuosity of channel along thalweg 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 Grade control Weak Natural valley Absent Second or greater order channel No		
Sinuosity of channel along thalweg 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 Grade control Weak Natural valley Absent Second or greater order channel No		
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		
Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel 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		
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Recent alluvial deposits Absent Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel No		
Headcuts Absent Grade control Weak Natural valley Absent Second or greater order channel No		Absent
Grade control Weak Natural valley Absent Second or greater order channel No	Recent alluvial deposits	
Natural valley Absent Second or greater order channel No		
Second or greater order channel No	Grade control	Weak
	Natural valley	Absent
Stream Geomorphology Total 5.5	Second or greater order channel	No
	Stream Geomorphology Total	5.5

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?	No
Stream Hydrology Total	1.5

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

NE



Downstream photo direction

Across Stream Photo 1

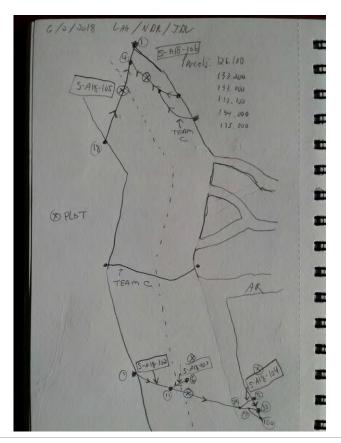
SW



Across stream photo direction 1

NW

Sketch of Stream



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

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Created	2018-06-02 17:50:48 UTC by Laura Giese
Updated	2018-09-20 18:59:40 UTC by Susie Gifford (SBG)
Location	36.3405852, -79.6040811
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin	
Lead Scientist's Initials	A18	
GPS Surveyor	Jeff Vandeveer	
GPS ID	NA	
Resource Series Number	104	
Resource ID	S-A18-104	
Do you need to override the resource id?	No	
Pasourra ID = Pasourra Typa - Scientist Initials - Pasourra Sarias Number		

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

Stream Inventory

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

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)	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)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated
Left Bank Binarian Buffer Condition	
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
Dight Bank Dinarian Buffer Condition	
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	Weak
Second or greater order channel	No
Stream Geomorphology Total	8

Stream Hydrology

Presence of baseflow	Weak
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	2

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
Notes	Adjacent hillside recently harvested
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction NE



Downstream photo direction

Across Stream Photo 1

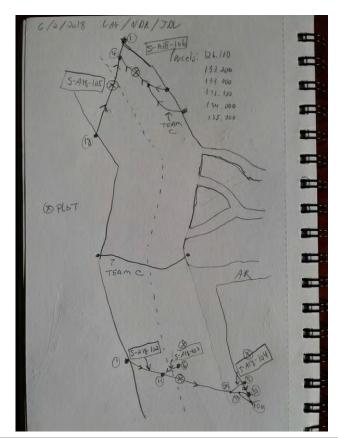
W



Across stream photo direction 1

Ν

Sketch of Stream



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

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Created	2018-06-02 16:06:46 EDT by Laura Giese
Updated	2018-06-26 10:38:35 EDT by Sam Edmonds
Location	36.347102, -79.6063698
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Resource Crew Info

Laura Giese, Jeff Vandeveer, Nate Renaudin
A18
Alo
Jeff Vandeveer
NA
105
S-A18-105
No

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

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	43
Calculated Stream Type	Perennial
Wildlife Observed	Fish
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	N
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)	7
Average Water Width (ft)	6
Bank to Bank (ft)	12

Bankfull Width (ft)	12
Probed Stream Depth	6 to 12 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, Vegetated
Left Bank Riparian Buffer Condition	1
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)	5
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud, Vegetated
Diebt Deel Dieseies Duffen Conditio	
Right Bank Riparian Buffer Conditio	on
Right Bank Riparian Buffer Condition Optimal (1.5) [Right]	o n 0
Optimal (1.5) [Right]	0
Optimal (1.5) [Right] High suboptimal (1.2) [Right]	0 1.2
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	0 1.2 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	0 1.2 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	0 1.2 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 1.2 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	0 1.2 0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 1.2 0 0 0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	0 1.2 0 0 0 0 0 1.2 1.2 Strong
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0 1.2 0 0 0 0 0 0 1.2 Strong Strong
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	0 1.2 0 0 0 0 0 0 1.2 Strong Strong Strong
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 1.2 0 0 0 0 0 0 1.2 Strong Strong Strong Strong
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 1.2 0 0 0 0 0 0 1.2 Strong Strong Strong Strong Strong Moderate
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 1.2 0 0 0 0 0 0 1.2 Strong Strong Strong Strong Strong Moderate Moderate
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 1.2 0 0 0 0 0 0 1.2 Strong Strong Strong Strong Moderate Moderate Weak
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	0 1.2 0 0 0 0 0 0 1.2 Strong Strong Strong Strong Woderate Moderate Weak Weak
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 1.2 0 0 0 0 0 0 1.2 Strong Strong Strong Strong Moderate Moderate Weak

Yes
23.5
Strong
Weak
Absent
Weak
Weak
Yes
9.5
Absent
Absent
Moderate
Absent
Weak
Moderate
Weak
Absent

State Protected, Corps Jurisdictional

Top of bank continued by Team C 6-22-2018

Stream Overview Report Photos

Wetland plants in streambed

Stream Biology Total

Regulatory Status

Notes

Upstream Stream Photo



Upstream photo direction

SW

Other

10



Downstream photo direction

Across Stream Photo 1

NW



Across stream photo direction 1

W

Across Stream Photo 2



Across stream photo direction 2

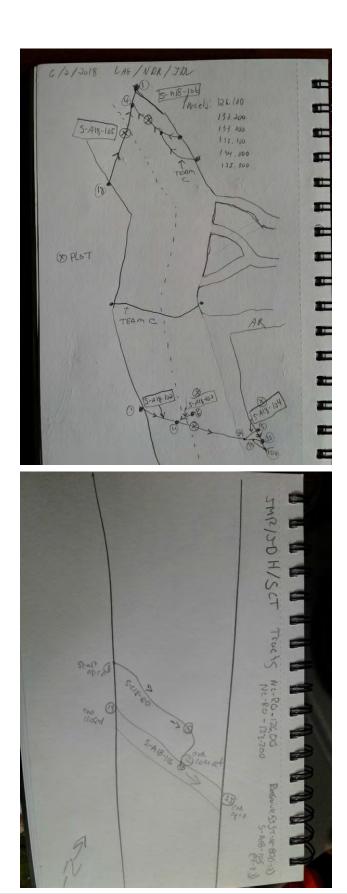
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Additional Stream Photos





Sketch of Stream



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

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Created	2018-06-02 19:49:36 UTC by Laura Giese
Updated	2018-09-19 18:26:53 UTC by Susie Gifford (SBG)
Location	36.3473681, -79.6063949
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	106
Resource ID	S-A18-106
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

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

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
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)	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)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
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	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Weak
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	Moderate
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	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	8.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Merged with old resource S-C18-26, all data for both old streams included in this form.
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

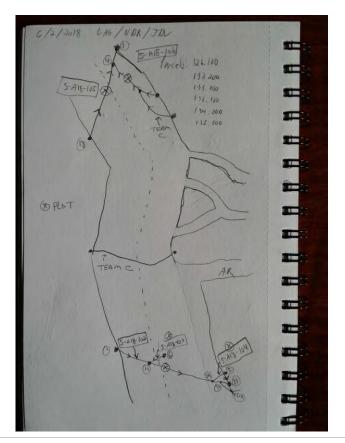
NW



Across stream photo direction 1

Ε

Sketch of Stream



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

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2018-06-04 14:33:12 UTC by Laura Giese
2018-09-20 19:02:47 UTC by Susie Gifford (SBG)
36.0733567, -79.3582088
Finalized & Approved
NextEra
MVP Southgate
18/06/04
180604

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	107
Resource ID	S-A18-107
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	20
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)	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)	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	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Moderate
neaucuts	
Grade control	Moderate
	Moderate Moderate
Grade control	

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	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



Downstream photo direction

Across Stream Photo 1

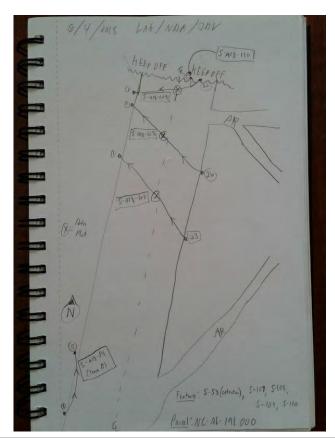
NW



Across stream photo direction 1

Е

Sketch of Stream



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

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Created	2018-06-04 15:10:23 UTC by Laura Giese
Updated	2018-09-20 19:03:21 UTC by Susie Gifford (SBG)
Location	36.0739277, -79.3580225
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/04
Date2	180604

Resource Crew Info

A18
Jeff Vandeveer
NA
108
S-A18-108
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	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

1.65 1.11.1.1.6	
Left Bank Height (feet)	2
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
Pight Pank	
Right Bank Height (fact)	2
Right Bank Height (feet)	2 to 1504 (5 to 0 dog) Moderately Slaping
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	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	15
	_

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
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
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Ctura and Outside in Demant Plants	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

SE



Downstream photo direction

Across Stream Photo 1

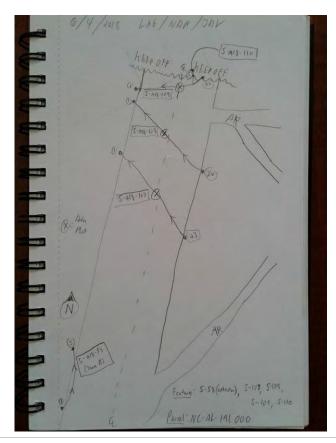
NW



Across stream photo direction 1

Ε

Sketch of Stream



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

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Created	2018-06-04 15:34:37 UTC by Laura Giese
Updated	2018-09-20 19:03:35 UTC by Susie Gifford (SBG)
Location	36.074878, -79.3576497
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/04
Date2	180604

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	109
Resource ID	S-A18-109
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	35.5
Calculated Stream Type	Perennial
Wildlife Observed	None
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW
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)	5
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	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]	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)	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]	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	Moderate
In-channel structure	Strong
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	Strong

Second or greater order channel	Yes
Stream Geomorphology Total	20.5

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

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Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Weak
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	9
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction SE



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

Ν

Across Stream Photo 2



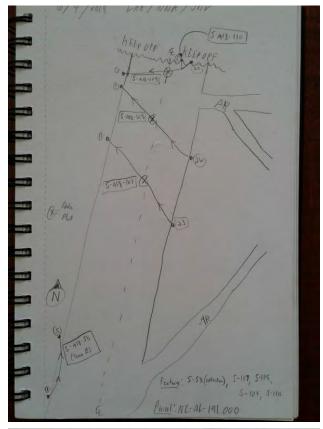
Across stream photo direction 2

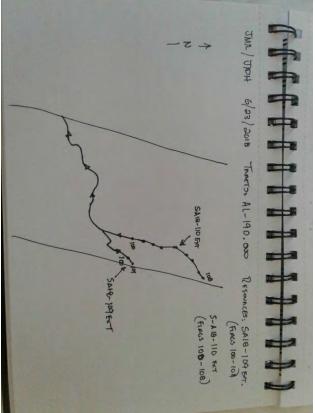
Additional Stream Photos





Sketch of Stream





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

S-	Δ	1	۵.	.1	1	U
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Created	2018-06-04 15:49:48 UTC by Laura Giese
Updated	2018-07-11 15:36:00 UTC by Susie Gifford (SBG)
Location	36.0749864, -79.3572268
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/04
Date2	180604

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	110
Resource ID	S-A18-110
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	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	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]	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	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	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	11.5
1 0	

Stream Hydrology

Presence of baseflow	Absent
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	6

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

Ν

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

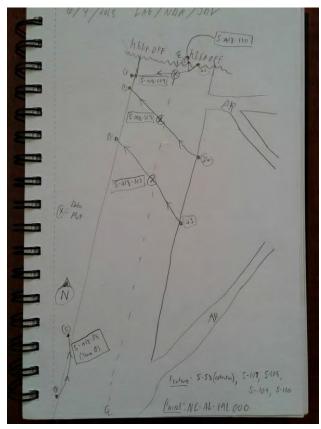
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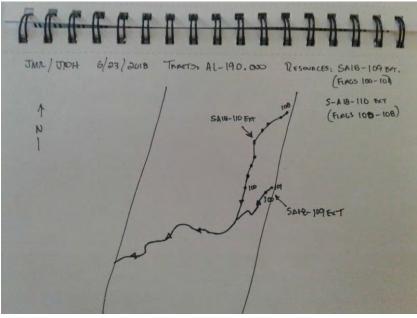
Additional Stream Photos





Sketch of Stream





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

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Created	2018-06-04 15:35:39 EDT by Laura Giese
Updated	2018-06-07 08:56:38 EDT by Sam Edmonds
Location	36.0889365, -79.3655052
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/04
Date2	180604

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	112
Resource ID	S-A18-112
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasource Series Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	20.5
Calculated Stream Type	Intermittent

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)	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)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
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
Pight Pank	
Right Bank	A
Right Bank Height (feet)	25 to 25% (14 to 20 dog) Stoop
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
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	Weak
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	9.5
St. cam decinor photogy rotal	2.0

Stream Hydrology

Weak
Absent
Moderate
Absent
Weak
Yes
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
Notes	Seepage flow
Character Character Character	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

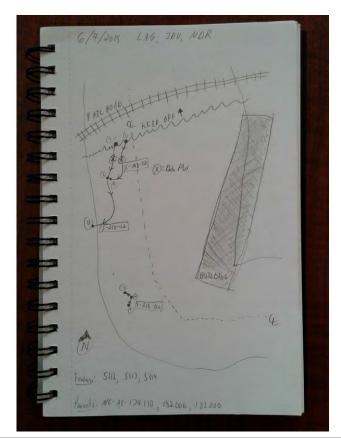
SW



Across stream photo direction 1

NW

Sketch of Stream



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

S-	Α	1	R.	.1	1	3

Created	2018-06-04 19:29:16 UTC by Laura Giese
Updated	2018-09-20 19:04:09 UTC by Susie Gifford (SBG)
Location	36.0890422, -79.3655501
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/04
Date2	180604

Resource Crew Info

Laura Giese, Jeff Vandeveer, Nate Renaudin
A18
Jeff Vandeveer
NA
113
S-A18-113
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	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)	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]	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
Diabet Doub Division Duffey Condition	
Right Bank Riparian Buffer Condition Optimal (1.5) [Right]	0
	0
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
	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	Weak
Depositional bars or benches	Absent
	Absent
Recent alluvial deposits	7.656.10
Recent alluvial deposits Headcuts	Weak
Headcuts	Weak
Headcuts Grade control	Weak Absent

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
Wetland plants in streambed	Other
Stream Biology Total	7
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

NE

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

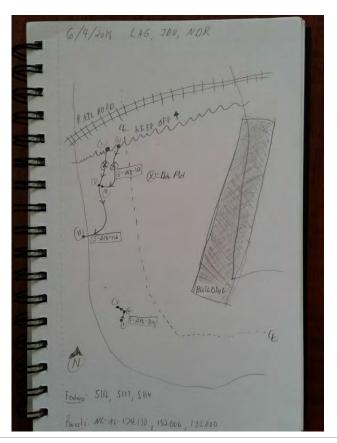
SW



Across stream photo direction 1

W

Sketch of Stream



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

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Created	2018-06-04 19:57:58 UTC by Laura Giese
Updated	2018-09-20 19:04:26 UTC by Susie Gifford (SBG)
Location	36.0883228, -79.3654563
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/04
Date2	180604

Resource Crew Info

Laura Giese, Jeff Vandeveer, Nate Renaudin
A18
Jeff Vandeveer
NA
114
S-A18-114
No

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

Stream Inventory

Stream / Waterbody Type	Seep
Calculated Stream Score	16.5
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
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)	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)	0.5
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	on
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)	0.5
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 Condi	tion
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	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
Recent alluvial deposits Headcuts	Absent
·	
Headcuts Grade control Natural valley	Absent
Headcuts Grade control	Absent Absent

Stream Hydrology

Strong
Absent
Absent
Absent
Absent
Yes
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
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Seeps out of hillside, but does not continue downslope very far before it dissipates
Starrage Organization Provided Physics	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

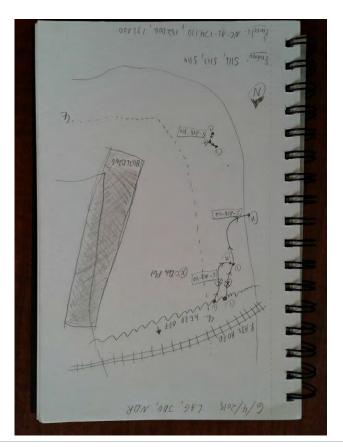
NW



Across stream photo direction 1

NE

Sketch of Stream



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

S-	Δ	1	R.	.1	1	5
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Created	2018-06-05 09:01:01 EDT by Laura Giese
Updated	2018-06-07 08:57:08 EDT by Sam Edmonds
Location	36.0878295, -79.3634571
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/05
Date2	180605

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	115
Resource ID	S-A18-115
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	35.5
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)	7
Average Water Width (ft)	5
Bank to Bank (ft)	9
Bankfull Width (ft)	9
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	High
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
Dight Pank	
Right Bank	2
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, 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	Absent
Depositional bars or benches	Moderate
<u> </u>	Weak
Recent alluvial deposits	
Headcuts Grade control	Absent
Grade control	Moderate
Natural valley	Strong
Second or greater order channel Stream Geomorphology Total	Yes 19.5

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	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	8
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

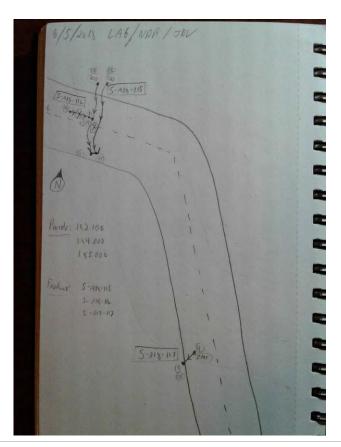
S



Across stream photo direction 1

W

Sketch of Stream



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

S-	Δ	1	R.	.1	1	6
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Created	2018-06-05 09:12:16 EDT by Laura Giese
Updated	2018-06-07 08:57:16 EDT by Sam Edmonds
Location	36.0876993, -79.3637052
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/05
Date2	180605

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	116
Resource ID	S-A18-116
Do you need to override the resource id?	No
Pasquirca ID = Pasquirca Tyna - Scientist Initials - Pasquirca Sarias Number	

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

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	14.5
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	Е

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

Long Book House (Co. 1)	
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
Pight Pank	
Right Bank	1
Right Bank Height (feet)	8 to 15% (5 to 9 deg) Moderately Sloping
Right Bank Slope	
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	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	7.5
St. cam dearnor priorogy Total	

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	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

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

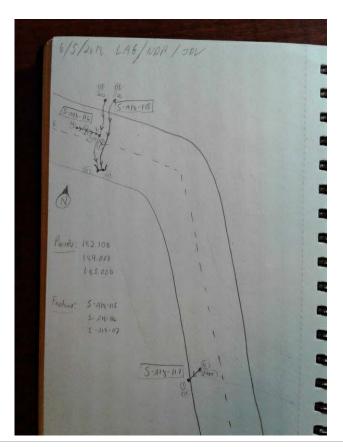
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Across stream photo direction 1

S

Sketch of Stream



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

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Created	2018-06-05 09:39:32 EDT by Laura Giese
Updated	2018-06-07 08:57:22 EDT by Sam Edmonds
Location	36.0857738, -79.3616108
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/05
Date2	180605

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	117
Resource ID	S-A18-117
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	13
Calculated Stream Type	Ephemeral

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)	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)	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 Substrate	vegetateu
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
2.1.2	
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	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	Absent
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	6

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	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

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

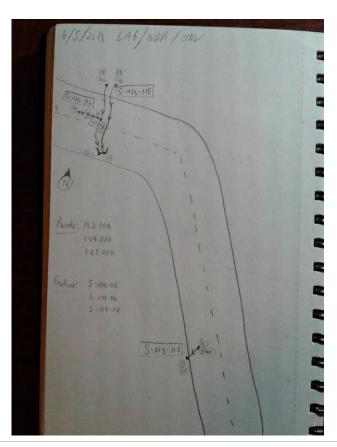
SW



Across stream photo direction 1

NW

Sketch of Stream



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

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Created	2018-06-05 15:55:42 UTC by Laura Giese
Updated	2018-08-02 10:59:05 UTC by Laura Giese
Location	36.0483014, -79.3653906
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/06/05
Date2	180605

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	118
Resource ID	S-A18-118
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	15
Calculated Stream Type	Ephemeral

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

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	n
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
Dight Donk	
Right Bank	1
Right Bank Height (feet) Right Bank Slope	1 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated
Right Bank Riparian Buffer Conditi	on
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
	0
Low poor (0.5) [Right]	
Low poor (0.5) [Right] Right bank total	0
Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 0
Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	0
Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0 0 Strong
Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	0 0 Strong Weak
Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 0 Strong Weak Weak
Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 0 Strong Weak Weak Weak
Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 0 Strong Weak Weak Weak Absent
Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 0 Strong Weak Weak Weak Absent Absent
Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	0 0 Strong Weak Weak Weak Absent Absent Absent
Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Grade control	0 0 Strong Weak Weak Weak Absent Absent Absent Absent Absent Absent
High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Grade control Natural valley Second or greater order channel	0 0 Strong Weak Weak Weak Absent Absent Absent Absent

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

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

Ε



Downstream photo direction

Across Stream Photo 1

NW



Across stream photo direction 1

Ν

Additional Stream Photos



EXT DN



EXT UP



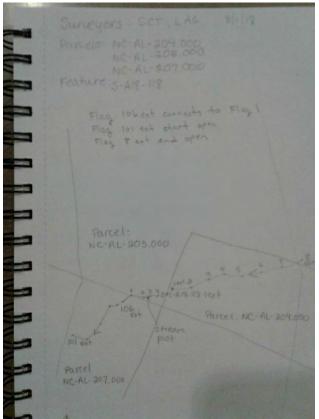
EXT 100s UP



EXT 100s DN

Sketch of Stream





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

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Created	2018-06-05 15:23:42 EDT by Laura Giese
Updated	2018-06-07 08:57:54 EDT by Sam Edmonds
Location	36.1997769, -79.5004784
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/05
Date2	180605

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	120
Resource ID	S-A18-120
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

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 Conditio	on
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 Conditi	ion
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
In-channel structure Particle size of stream substrate	
In-channel structure Particle size of stream substrate Active or relict floodplain	Moderate
In-channel structure Particle size of stream substrate	Moderate Weak
In-channel structure Particle size of stream substrate Active or relict floodplain	Moderate Weak Moderate
In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	Moderate Weak Moderate Absent
In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	Moderate Weak Moderate Absent Absent
In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	Moderate Weak Moderate Absent Absent Absent
In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Grade control	Moderate Weak Moderate Absent Absent Absent Absent

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

Absent
1
Absent
Weak
Absent
Other
6.5
State Protected, Corps Jurisdictional
Stream supported by groundwater seepage

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

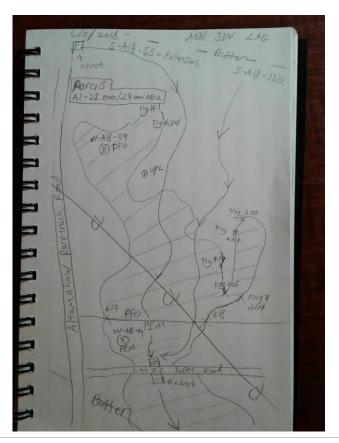
SW



Across stream photo direction 1

W

Sketch of Stream



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

	W	B-A1	18-1	21
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Created	2018-06-06 12:47:20 UTC by Laura Giese
Updated	2018-09-20 19:15:05 UTC by Susie Gifford (SBG)
Location	36.1987482, -79.4994134
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	121
Resource ID	WB-A18-121
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-121
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	1
Calculated Stream Type	Ephemeral

Stream Conditions

Direction of Flow	C	
Direction of Flow	3	

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)	25	
Average Water Width (ft)	25	
Bank to Bank (ft)	30	
Bankfull Width (ft)	30	
Probed Stream Depth	> 36 inches	

Left Bank Height (feet)	3
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]	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	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	
Amphibians	Moderate
Stream Biology Total	1
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo

Ε



Downstream photo direction

W

Across Stream Photo 1



Across stream photo direction 1

Sketch of Stream

S



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

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Created	2018-06-06 10:54:18 EDT by Laura Giese
Updated	2018-06-08 09:38:56 EDT by Sam Edmonds
Location	36.1980285, -79.4986751
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

A18
eff Vandeveer
NA
22
S-A18-122
No
N 1:2

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	26
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 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
Zeric Barin, Babbirate	repetated
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
Dight Pank	
Right Bank	1
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	Weak
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	Weak
Second or greater order channel	No
Stream Geomorphology Total	8.5

Presence of baseflow	Strong
Iron oxidizing bacteria	Strong
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10

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
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Headwater groundwater seepage stream
Starrage Organization Design A District	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Ε



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

SE



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

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Created	2018-06-06 11:18:46 EDT by Laura Giese
Updated	2018-06-08 09:40:02 EDT by Sam Edmonds
Location	36.1981998, -79.498772
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	123
Resource ID	S-A18-123
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	27
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)	1	
Average Water Width (ft)	1	
Bank to Bank (ft)	2	
Bankfull Width (ft)	2	
Probed Stream Depth	0 to 6 inches	

Left Bank Slope Definal (1.5) Left) Define Bank Riparian Buffer Condition Optimal (1.5) Left) Optimal (1.5) Le	Left Bank Height (feet)	1
Left Bank Riparian Buffer Condition Vegetated Optimal (1.5) [Left] 0 High suboptimal (1.5) [Left] 0 Low suboptimal (1.5) [Left] 0 Low suboptimal (1.7) [Left] 0 High marginal (0.85) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 0 Right Bank (Left) 0 Right Bank (Left) 0 Right Bank (Left) 1 Right Bank (Left) 1 Right Bank (Left) 1 Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition Vegetated Optimized Condition Vegetated Right Bank Riparian Buffer Condition <td< td=""><td></td><td></td></td<>		
Left Bank Riparian Buffer Condition Optimal (1.5) [Left] 0 High suboptimal (1.2) [Left] 0 Low suboptimal (1.1) [Left] 0 Low marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Right Bank Lotal 0 Right Bank Height (feet) 1 Right Bank Slope 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition O Optimal (1.5) [Right] 0 Low Josephinal (1.1) [Right] 0 Low marginal (0.25) [Right] 0 <t< td=""><td>·</td><td></td></t<>	·	
Left Bank Riparian Buffer Condition Optimal (1.5) [Left] 0 High suboptimal (1.2) [Left] 0 Low suboptimal (1.1) [Left] 0 Low suboptimal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Right Bank Riparian Buffer Condition Right Bank Riparian Buffer Condition Optimal (1.2) [Right] 0 Low poor (0.5) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right]		
Optimal (1.5) [Left] 0 High suboptimal (1.1) [Left] 0 Low suboptimal (1.1) [Left] 0 High marginal (0.85) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 0 Right Bank N Right Bank Height (feet) 1 Right Bank Subsea 0 to 8% (0 to 5 deg) Nearly Level to Gendly Sloping Right Bank Substrate vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 High suboptimal (1.1) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (1.1) [Right] 0 High poor (0.5) [Right] 0 High poor (0.5) [Right] 0 High poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Continuity of channel bed and bank Strong Sinuosity of channel bed and bank Strong Sinuosity of channel structure Weak Particle size of stream subst	Ecre Barin Substrace	regetated
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 1 Right Bank Slope 0 0 Right Bank Slope 0 0 Right Bank Slope 0 0 0 Right Bank Slope 0 0 0 Right Bank Substrate Vegetated 0 Right Bank Riparian Buffer Condition 0 0 Right Bank Riparian Buffer Condition 0 0 High suboptimal (1.2) [Right] 0 0 Low suboptimal (1.2) [Right] 0 0 Low suboptimal (1.2) [Right] 0 0 Low marginal (0.25) [Right] 0 0 Low marginal (0.25) [Right] 0 0 Low poor (0.5) [Right] 0 0 Stream Geomer John [Complete Complete Complete Complete Compl	Left Bank Riparian Buffer Condition	
Low suboptimal (1.1) [Left] 0 Low marginal (0.85) [Left] 0 Low poor (0.6) [Left] 0 Low poor (0.6) [Left] 0 Low poor (0.6) [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 Bank Slubstrate Vegetated Right Bank Riparian Buffer Condition Cyptianal (1.2) [Right] 0 Cyptianal (1.2) [Right] 0 1 Low suboptimal (1.2) [Right] 0 1 Low marginal (0.85) [Right] 0 1 Low marginal (0.75) [Right] 0 1 Low poor (0.6) [Right] 0 1 Low poor (0.6) [Right] 0 2 Cream Geomorphology Veak 2 Tream Geomorphology Weak 2 Inchannel structure Weak 2 Particle size of stream substrate Weak 2 Particle size of stream substrate Weak 2 Crede control Absent 3 Natural valley Absent </td <td>Optimal (1.5) [Left]</td> <td>0</td>	Optimal (1.5) [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 total Right Bank Height (feet) 1 Right Bank Slope 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 High suboptimal (1.2) [Right] 0 Low suboptimal (1.2) [Right] 0 Low marginal (0.75) [Right] 0 High por (0.6) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.6) [Right] 0 Low poor (0.6) [Right] 0 Stream Geomorphology Veget Continuity of channel adong thalweg Moderate In-channel structure Weak Active or relict floodplain Weak Particle size of stream substrate Weak Active or relict floodplain Weak Depositional bars or b	High suboptimal (1.2) [Left]	0
Low marginal (0.75) (Left) 0 Low poor (0.5) (Left) 0 Left bank total 0 No Right Bank Right Bank Height (feet) 1 Right Bank Slope 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) (Right) 0 High suboptimal (1.2) (Right) 0 Low suboptimal (1.2) (Right) 0 Low marginal (0.85) (Right) 0 Low marginal (0.5) (Right) 0 Low poor (0.5) (Right) 0 Low poor (0.5) (Right) 0 Stream Geomorphology Continuity of channel along thalweg Moderate In-channel structure Weak Active or relict floodplain Weak Active or relict floodplain Weak Peopletional bars or benches Absent Grade control Absent Noderate	Low suboptimal (1.1) [Left]	0
High poor (0.5) [Left] 0 Left bank total 0 Right Bank Right Bank Right Bank Height (feet) 1 Right Bank Slope 0 Right Erosion Potential 1 Low Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Low 3 Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Low 3 Low 3 Low 3 Low 3 Low 4 Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Low 3 Low 4 Low 4 Low 10 Low 1	High marginal (0.85) [Left]	0
Low poor (0.5) [Left] 0 Left bank total 0 Right Bank Right Bank Right Bank Height (feet) 1 Right Bank Slope 0 Right Erosion Potential 1 Right Bank Substrate 0 Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (0.75) [Right] 0 Low parginal (0.75) [Right] 0 Right bank total 0 Stream Geomorphology Continuity of channel bad and bank 0 Strong Stream Structure 0 Meak Particle size of stream substrate 0 Weak Active or relict floodplain 0 Weak Leecent alluvial deposits Absent 0 Recent alluvial deposits Absent 0 Recent alluvial deposits Absent 0 Readucturo 1 Rabent 1 Rabent 2 Robert 1 Robert 1 Robert 2 Robert 2 Robert 2 Robert 2 Robert 2 Robert 2 Robert 3 Robert 3 Robert 4	Low marginal (0.75) [Left]	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 Right suboptimal (1.2) [Right] 0 Right suboptimal (1.2) [Right] 0 Right gank Substrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Right suboptimal (1.2) [Right] 0 Right suboptimal (1.2) [Right] 0 Right suboptimal (1.2) [Right] 0 Right suboptimal (1.5) [Right] 0 Right sub	High poor (0.6) [Left]	0
Right Bank Right Bank Height (feet) Right Bank Slope 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping Right Bank Slope Right Bank Substrate Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] Optimal (1.2) [Right] Optimal (1.2) [Right] Optimal (1.2) [Right] Optimal (0.25) [Rig	Low poor (0.5) [Left]	0
Right Bank Height (feet) 1 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping Right Erosion Potential Low Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Command (1.5) [Right] 0 Comman	Left bank total	0
Right Bank Height (feet) 1 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping Right Erosion Potential Low Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Command (1.5) [Right] 0 Comman	Dight Dank	
Right Bank Slope 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping Right Erosion Potential Low Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 High suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (0.1) [Right] 0 Low suboptimal (0.1) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Right bank total 0 Stream Geomorphology Continuity of channel bed and bank Strong Sinuosity of channel structure Weak Particle size of stream substrate Weak Active or relict floodplain Weak Recent alluvial deposits Absent Recent alluvial deposits Absent Readcuts Grade control Absent Natural valley Moderate Road or greater order channel		
Right Erosion Potential Vegetated Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Low suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 High marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Right bank total 0 Stream Geomorphology Continuity of channel along thalweg Moderate In-channel structure Weak Active or relict floodplain Weak Depositional bars or benches Absent Recent alluvial deposits Absent Headcuts Absent Natural valley Moderate Natural valley Moderate Noderate Roderate Oncord		
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 High suboptimal (1.1) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 High poor (0.6) [Right] 0 Low poor (0.6) [Right] 0 Right bank total 0 Stream Geomorphology Continuity of channel and bank Strong Sinuosity of channel along thalweg Moderate In-channel structure Weak 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 Moderate Second or greater order channel Moderate Second or greater order channel		
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 (0.85) [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 Active or relict floodplain Weak Depositional bars or benches Absent Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Moderate Second or greater order channel Moderate		
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 Low marginal (0.75) [Right] 0 High poor (0.6) [Right] 0 Low poor (0.6) [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 Weak Depositional bars or benches Absent Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Second or greater order channel Moderate No	Right Bank Substrate	Vegetated
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 Low marginal (0.75) [Right] 0 High poor (0.6) [Right] 0 Low poor (0.6) [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 Weak Depositional bars or benches Absent Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Second or greater order channel Moderate No	Right Bank Riparian Buffer Condition	
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 Weak Active or relict floodplain Weak Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Moderate Second or greater order channel No	<u> </u>	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 Weak Active or relict floodplain Weak Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Moderate Second or greater order channel No		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 Weak Depositional bars or benches Absent Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Moderate Second or greater order channel No	Low suboptimal (1.1) [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 Weak Depositional bars or benches Absent Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Moderate Second or greater order channel No	High marginal (0.85) [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 Weak Depositional bars or benches Absent Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Moderate Second or greater order channel No	Low marginal (0.75) [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 Weak Depositional bars or benches Absent Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Moderate Second or greater order channel No	High poor (0.6) [Right]	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 Weak Depositional bars or benches Absent Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Moderate Second or greater order channel No	Low poor (0.5) [Right]	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 Weak Depositional bars or benches Absent Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Moderate Second or greater order channel No	Right bank total	0
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 Weak Depositional bars or benches Absent Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Moderate Second or greater order channel No		
Sinuosity of channel along thalweg In-channel structure Weak 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 Moderate Second or greater order channel Moderate		
In-channel structure Weak 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 Moderate Second or greater order channel No		
Particle size of stream substrate Active or relict floodplain Weak Depositional bars or benches Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Moderate Second or greater order channel Weak Weak Weak Absent Absent Absent No		
Active or relict floodplain Weak Depositional bars or benches Absent Recent alluvial deposits Absent Headcuts Absent Grade control Absent Natural valley Moderate Second or greater order channel No		
Depositional bars or benches Recent alluvial deposits Absent Headcuts Absent Grade control Natural valley Moderate Second or greater order channel No		
Recent alluvial deposits Absent Headcuts Absent Grade control Natural valley Moderate Second or greater order channel No	·	
Headcuts Absent Grade control Absent Natural valley Moderate Second or greater order channel No		Absent
Grade control Absent Natural valley Moderate Second or greater order channel No	Recent alluvial deposits	Absent
Natural valley Moderate Second or greater order channel No		
Second or greater order channel No	Grade control	Absent
	Natural valley	Moderate
Stream Geomorphology Total 9	Second or greater order channel	No
	Stream Geomorphology Total	9

Presence of baseflow	Strong
Iron oxidizing bacteria	Strong
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	11

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	Other
Stream Biology Total	7
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Groundwater seepage stream, 100 series is ephemeral
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction NE



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

SE



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

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Created	2018-06-06 12:04:14 EDT by Laura Giese
Updated	2018-06-08 09:41:05 EDT by Sam Edmonds
Location	36.1979984, -79.499596
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	124
Resource ID	S-A18-124
Do you need to override the resource id?	No
Pasourca ID - Pasourca Typa - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	24.25
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)	2	
Average Water Width (ft)	2	
Bank to Bank (ft)	3	
Bankfull Width (ft)	3	
Probed Stream Depth	6 to 12 inches	

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	on	
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	
Dight Donk Dinovious Duffey Conditi		
Right Bank Riparian Buffer Condit		
Optimal (1.5) [Right]	0	
1 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 (1 T) [D] - 1 - 1	0	
High suboptimal (1.2) [Right]	0	
Low suboptimal (1.1) [Right]	0	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	0	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	0 0 0	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0 0	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0 0	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	0 0 0 0	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 0 0 0 0	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	0 0 0 0 0 0 0	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0 0 0 0 0 0 0 0 0 Strong Weak	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	0 0 0 0 0 0 0 0 0 Strong Weak Weak	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent Absent	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent Absent Absent	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent Absent Absent Absent	
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Grade control	0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent Absent Absent Absent Absent Absent Absent	

Presence of baseflow	Strong
Iron oxidizing bacteria	Strong
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	10.5

Absent
Absent
Weak
Absent
FACW
7.25
State Protected, Corps Jurisdictional
Headwater groundwater seepage stream

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction NW



Downstream photo direction

Across Stream Photo 1

SE



Across stream photo direction 1

Ν



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

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Created	2018-06-06 13:45:07 EDT by Laura Giese
Updated	2018-06-08 09:41:21 EDT by Sam Edmonds
Location	36.1973743, -79.498484
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	125
Resource ID	S-A18-125
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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	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)	5	
Average Water Width (ft)	5	
Bank to Bank (ft)	6	
Bankfull Width (ft)	6	
Probed Stream Depth	24 to 36 inches	

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	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	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	Yes

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

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Water levels high and appear to be backed up. Obscures biology observations.
Character Occasions Demonstrate Dhantan	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

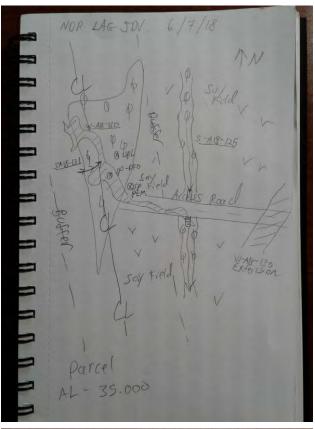
SE

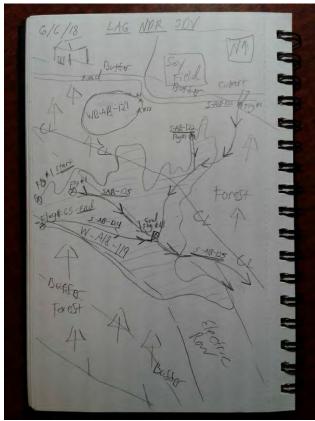


Across stream photo direction 1

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Sketch of Stream







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

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Created	2018-06-06 13:37:57 EDT by Laura Giese
Updated	2018-06-08 09:41:42 EDT by Sam Edmonds
Location	36.1973666, -79.4983859
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	126
Resource ID	S-A18-126
Do you need to override the resource id?	No
Passuurca ID = Passuurca Tyna - Scientist Initials - Passuurca Sarias Number	

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

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	10
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	Е

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)	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
Dight Dank	
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	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Absent
Particle size of stream substrate	Absent
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	3.5
	_

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Strong
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	0.5

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



Downstream photo direction

Across Stream Photo 1

F



Across stream photo direction 1

S



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

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Created	2018-06-06 19:28:38 UTC by Nathan Renaudin
Updated	2018-09-20 19:15:19 UTC by Susie Gifford (SBG)
Location	36.1966106, -79.4973171
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	128
Resource ID	WB-A18-128
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-128
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
Observed Use	Swimming, Fishing

Stream Conditions

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

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, Corps Jurisdictional

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

SW

Across Stream Photo 2



Across stream photo direction 2

Sketch of Stream

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

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Created	2018-06-06 15:01:06 EDT by Nathan Renaudin
Updated	2018-06-08 09:42:53 EDT by Sam Edmonds
Location	36.1975025, -79.4979393
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	129
Resource ID	S-A18-129
Do you need to override the resource id?	No
Pasourca ID - Pasourca Typa - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	16.25
Calculated Stream Type	Ephemeral
Wildlife Observed	None
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S
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)	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	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]	0.85		
Low marginal (0.75) [Left]	0		
High poor (0.6) [Left]	0		
Low poor (0.5) [Left]	0		
Left bank total	0.85		
Dight Dook			
Right Bank	1		
Right Bank Height (feet)			
Right Bank Slope Right Erosion Potential	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping		
	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]	0.85		
Low marginal (0.75) [Right]	0		
High poor (0.6) [Right]	0		
Low poor (0.5) [Right]	0		
Right bank total	0.85		
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	Absent		

Second or greater order channel	No
Stream Geomorphology Total	6.5

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

Stream Biology

Weak		
Moderate		
Absent		
FACW		
3.75		
State Protected, Corps Jurisdictional		
Stream is small and does not contain a varied sediment substrate.		

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

W

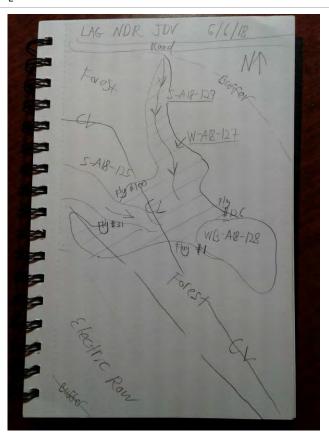
Across Stream Photo 2



Across stream photo direction 2

Sketch of Stream

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

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Created	2018-06-07 10:20:36 EDT by Nathan Renaudin		
Updated	2018-06-08 08:59:56 EDT by Sam Edmonds		
Location	36.1936633, -79.4973221		
Status	Finalized & Approved		
Client	NextEra		
Project	MVP Southgate		
Date	18/06/07		
Date2	180607		

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin	
Lead Scientist's Initials	A18	
GPS Surveyor	Jeff Vandeveer	
Resource Series Number	131	
Resource ID	S-A18-131	
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	13.5
Calculated Stream Type	Ephemeral
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal	
Direction of Flow	E	
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		
Channel Alteration Total	0		

Stream Measurements

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

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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]	0.75	
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	0 to 8% (0 to 5 deg) Nearly Level to Gently 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]	0.75
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	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	6

Presence of baseflow	Absent
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	1.5

Stream Biology

Absent
Absent
Other
6
State Protected, Corps Jurisdictional
Stream connects to wetland 130

Upstream Stream Photo



Upstream photo direction

W



Downstream photo direction

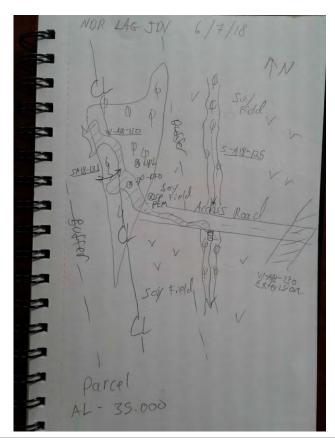
Across Stream Photo 1

Ε



Across stream photo direction 1

S



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

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Created	2018-06-07 11:07:54 EDT by Nathan Renaudin
Updated	2018-06-08 08:45:46 EDT by Sam Edmonds
Location	36.1904804, -79.4963641
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/07
Date2	180607

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin	
Lead Scientist's Initials	A18	
GPS Surveyor	Jeff Vandeveer	
GPS ID	NA	
Resource Series Number	132	
Resource ID	S-A18-132	
Do you need to override the resource id?	No	
Pasource ID = Resource Type - Scientist Initials - Resource Series Number		

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

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	35.75
Calculated Stream Type	Perennial
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW
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)	5
Average Water Width (ft)	4
Bank to Bank (ft)	5

Bankfull Width (ft)	5		
Probed Stream Depth	6 to 12 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		
Piels Bank			
Right Bank	4		
Right Bank Height (feet) Right Bank Slope			
	15 to 25% (9 to 14 deg) Steeply Sloping		
Right Erosion Potential Right Bank Substrate	Moderate Silt-Mud		
Right Dank Substitute	Siit-Muu		
Right Bank Riparian Buffer Condition			
Right Bank Riparian Buffer Condition Optimal (1.5) [Right]	0		
	0		
Optimal (1.5) [Right]			
Optimal (1.5) [Right] High suboptimal (1.2) [Right]	0		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	0 1.1		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	0 1.1 0		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	0 1.1 0 0		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 1.1 0 0		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	0 1.1 0 0 0		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 1.1 0 0 0 0 0		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	0 1.1 0 0 0 0 1.1 1.1 Strong		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 1.1 0 0 0 0 0		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0 1.1 0 0 0 0 0 1.1 Strong Moderate Moderate		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 1.1 0 0 0 0 0 1.1 Strong Moderate		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 1.1 0 0 0 0 0 1.1 Strong Moderate Moderate Weak		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 1.1 0 0 0 0 1.1 Strong Moderate Moderate Weak Weak		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 1.1 0 0 0 0 0 1.1 Strong Moderate Moderate Weak Weak Weak		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 1.1 0 0 0 0 1.1 Strong Moderate Moderate Weak Weak Weak Weak		
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	0 1.1 0 0 0 0 0 1.1 Strong Moderate Weak Weak Weak Weak Weak Weak Moderate		

Second or greater order channel	Yes
Stream Geomorphology Total	16.5

Presence of baseflow	Strong
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	9

Stream Biology

Fibrous roots in streambed	Moderate
Rooted upland plants in streambed	Moderate
Macrobenthos	Strong
Aquatic mullusks	Moderate
Fish	Weak
Crayfish	Moderate
Amphibians	Weak
Algae	Weak
Wetland plants in streambed	FACW
Stream Biology Total	10.25
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Stream is NHD on maps.
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction NE



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

S

Sketch of Stream



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

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Created	2018-06-07 14:32:13 EDT by Laura Giese
Updated	2018-06-08 08:53:44 EDT by Sam Edmonds
Location	36.1896046, -79.4958049
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/07
Date2	180607

418
eff Vandeveer
NA
134
5-A18-134
No
1

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 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)	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		
Left bank total			
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	Moderate		
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	Absent		
Natural valley	Moderate		
Second or greater order channel	No		
Stream Geomorphology Total	8		

Presence of baseflow	Weak
Iron oxidizing bacteria	Moderate
Leaf litter	Moderate
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	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



Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

S



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

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Created	2018-06-07 14:15:24 EDT by Nathan Renaudin		
Updated	2018-06-08 08:56:45 EDT by Sam Edmonds		
Location	36.1900474, -79.4966025		
Status	Finalized & Approved		
Client	NextEra		
Project	MVP Southgate		
Date	18/06/07		
Date2	180607		

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin		
Lead Scientist's Initials	A18		
GPS Surveyor	Jeff Vandeveer		
Resource Series Number	136		
Resource ID	S-A18-136		
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	24.25
Calculated Stream Type	Intermittent
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)		
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	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	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	15 to 25% (9 to 14 deg) Steeply Sloping		
Right Erosion Potential	High		
Right Bank Substrate	Silt-Mud		
Right Bank Riparian Buffer Condit Optimal (1.5) [Right]	0		
	0		
High suboptimal (1.2) [Right]			
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	Moderate		
Particle size of stream substrate	Weak		
Active or relict floodplain	Weak		
Depositional bars or benches	Absent		
Recent alluvial deposits	Absent		
Headcuts	Weak		
Grade control	Weak		
Natural valley	Absent		
Second or greater order channel	No		

Presence of baseflow	Moderate
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	6.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Weak
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	8.25
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

NE



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

S

Sketch of Stream



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

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Created	2018-06-07 19:26:08 UTC by Nathan Renaudin
Updated	2018-09-20 19:15:50 UTC by Susie Gifford (SBG)
Location	36.1885457, -79.4953641
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/07
Date2	180607

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin	
Lead Scientist's Initials	A18	
GPS Surveyor	Jeff Vandeveer	
GPS ID	NA	
Resource Series Number	137	
Resource ID	WB-A18-137	
Do you need to override the resource id?	Yes	
Resource ID Override	WB-A18-137	
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	Waterfowl
Observed Use	Boating, Fishing

Stream Conditions

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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

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Ε



Downstream photo direction

Across Stream Photo 1

NE



Across stream photo direction 1

SE



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

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Created	2018-06-08 15:55:10 UTC by Nathan Renaudin
Updated	2018-08-25 15:11:32 UTC by Will Buetow
Location	36.4772514, -79.6955983
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/08
Date2	180608

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ndeveer, Nate Renaudin
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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	Frogs
Observed Use	Drainage

Stream Conditions

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

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
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
Diaht Dank	
Right Bank Right Bank Height (feet)	3
Right Bank Slope	
Right Erosion Potential	15 to 25% (9 to 14 deg) Steeply Sloping
Right Bank Substrate	High Sand
right bank substrate	Sanu
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	MI.
rarticle size or stream substrate	Weak
Active or relict floodplain	Moderate
Active or relict floodplain	Moderate
Active or relict floodplain Depositional bars or benches	Moderate Weak
Active or relict floodplain Depositional bars or benches Recent alluvial deposits	Moderate Weak Moderate

Second or greater order channel	Yes
Stream Geomorphology Total	18.5

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

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Fibrous roots in streambed	Moderate
Rooted upland plants in streambed	Moderate
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	5.75
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction NE



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

W

Across Stream Photo 2



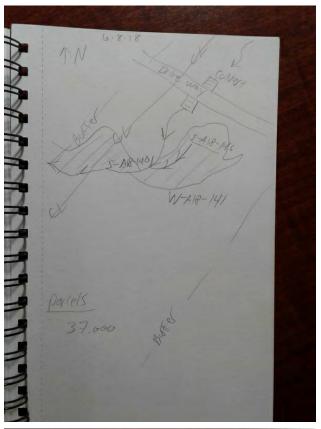
Across stream photo direction 2

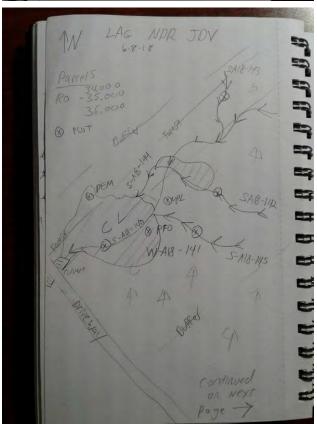
Additional Stream Photos

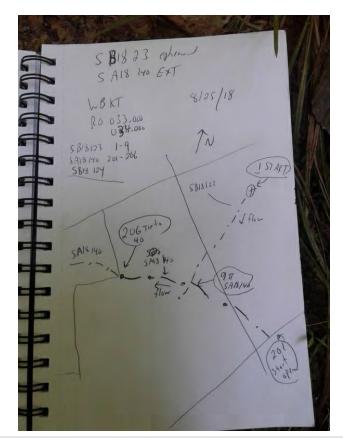
Ε



Sketch of Stream







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

S-	Α	1	R.	-1	42

Created	2018-06-08 16:13:27 UTC by Nathan Renaudin
Updated	2018-09-20 19:05:15 UTC by Susie Gifford (SBG)
Location	36.4774734, -79.6956271
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/08
Date2	180608

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	142
Resource ID	S-A18-142
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	25.75
Calculated Stream Type	Intermittent
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NW
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	
Channel Alteration Total	0	

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

Left Bank Height (feet) 2 Left Bank Niope 0 10 8% (0 10 5 deg) Nearly Level to Gentty Sloping 1 Left Bank Slope 0 10 8% (0 10 5 deg) Nearly Level to Gentty Sloping 1 Left Bank Slope 1 Left Bank Slobstrate Muld or muck 1 Left Bank Riparian Buffer Condition 1 Optimal (1.5) (Left) 0 Low suboptimal (1.1) (Left) 0 Low suboptimal (1.1) (Left) 0 Low suboptimal (1.1) (Left) 0 Low suboptimal (1.5) (Left) 0 Low marginal (0.75) (Left) 0 Low marginal (0.75) (Left) 0 Low marginal (0.75) (Left) 0 Low poor (0.6) (Left) 0 Low poor (0.6) (Left) 0 Low poor (0.6) (Left) 0 Right Bank Niope 8 to 15% (5 to 9 deg) Moderately Sloping 8 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping 8 Right Bank Riparian Buffer Condition 1 Right Bank Riparian Buffer Condition 1 Optimal (1.5) (Right) 0 Low suboptimal (1.1) (Right) 0 Low suboptimal (1.2) (Right) 0 Low marginal (0.75) (Right) 0 Low marginal (0.75) (Right) 0 Low poor (0.5) (Right) 0 Low marginal (0.75) (Right) 0 Low poor (0.5) (Right) 0 Low marginal (0.75) (Right) 0 Low poor (0.5) (Right) 0 Low poor (0.5) (Right) 0 Low poor (0.5) (Right) 0 Low flight bank total 0 Stream Geomorphology Continuity of channel along thelweg Weak Left Each and Low Left Right Weak Recent alluval deposits Weak Recent alluval deposits Weak Recent alluval deposits Weak	Bankfull Width (ft)	3
Left Bank Height (feet) 2 Left Brosk Slope 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping Left Brosk Slope Mud or muck Left Bank Riparian Buffer Condition Word muck Deprimal (1.5) [Left] 0 High suboptimal (1.2) [Left] 0 Low suboptimal (2.7) [Left] 0 Low marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.6) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Right Bank 0 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Erosion Potential Moderate Right Bank Riparian Buffer Condition Slit-Mud Optimal (1.5) [Right] 0 Politimal (1.2) [Right] 0 Outs us boptimal (1.1) [Right] 0 Low suboptimal (1.2) [Right] 0 Low you poor (0.6) [Right] 0 <tr< td=""><td>Probed Stream Depth</td><td>0 to 6 inches</td></tr<>	Probed Stream Depth	0 to 6 inches
Left Bank Height (feet) 2 Left Brosk Slope 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping Left Brosk Slope Mud or muck Left Bank Riparian Buffer Condition Word muck Deprimal (1.5) [Left] 0 High suboptimal (1.2) [Left] 0 Low suboptimal (2.7) [Left] 0 Low marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.6) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Right Bank 0 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Erosion Potential Moderate Right Bank Riparian Buffer Condition Slit-Mud Optimal (1.5) [Right] 0 Politimal (1.2) [Right] 0 Outs us boptimal (1.1) [Right] 0 Low suboptimal (1.2) [Right] 0 Low you poor (0.6) [Right] 0 <tr< td=""><td></td><td></td></tr<>		
Left Bank Slope 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping Left Erosin Potential Low Mul or muck Left Bank Substrate Mul or muck Left Bank Riparian Buffer Condition Doptimal (1.5) (Left) 0 Coptimal (1.5) (Left) 0		
Left Bank Riparian Buffer Condition Optimal (1.5) (Left) 0 Optimal (
Left Bank Riparian Buffer Condition Optimal (1.5) [Left] 0 High suboptimal (1.2) [Left] 0 Low suboptimal (1.1) [Left] 0 Low suboptimal (1.1) [Left] 0 Low marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Right Bank Height (feet) 2 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping 8 Right Bank Riparian Buffer Condition 9 Right Bank Riparian Buffer Condition 9 Deprimal (1.5) [Right] 0 Low suboptimal (1.5) [Right] 0 Low suboptimal (1.5) [Right] 0 Low marginal (0.75) [Right] 0 Low		
Left Bank Riparian Buffer Condition Optimal (1.5) [Left] 0 Low suboptimal (1.1) [Left] 0 Liw suboptimal (1.2) [Left] 0 Low marginal (0.85) [Left] 0 Low marginal (0.85) [Left] 0 Low more product of the suboptimal (1.2) [Left] 0 Low more product of the suboptimal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Right Bank (1.5) [Left] 0 Right Bank Height (feet) 2 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping 8 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping 8 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping 8 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping 8 Right Bank Riparian Buffer Condition 9 to 15% (1.5) (1		
Optimal (1.5) [Left] 0 High suboptimal (1.2) [Left] 0 Low suboptimal (1.7) [Left] 0 Low marginal (0.85) [Left] 0 Low marginal (0.75) [Left] 0 High poor (0.6) [Left] 0 Left bank total 0 Right Bank State (1.5) [Left] Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Substrate Sillt-Mud Right Bank Riparian Buffer Condition Moderate Optimal (1.5) [Right] 0 Unusual (1.5) [Right] 0 Low suboptimal (1.2) [Right] 0 Low suboptimal (1.2) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Right bank total 0 Stream Geomorphology Weak Continuity of channel bed and bank Moderate Sinusisty of channel along thalweg Weak In-channel structure Weak	Left Bank Substrate	Mud or muck
High suboptimal (1.2) [Left] 0 Low suboptimal (1.7) [Left] 0 High marginal (0.85) [Left] 0 Low marginal (0.75) [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 Substrate Silk-Mud Right Bank Riparian Buffer Condition Noderate Right Bank Riparian Buffer Condition 0 Low suboptimal (1.5) [Right] 0 High poor (0.5) [Right] 0 Low suboptimal (1.5) [Right] 0 Low marginal (0.85) [Right] 0 Low poor (0.5) [Right] 0 Continuity of channel bed and bank Moderate Stream Geomorphology Continuity of channel bed and bank Moderate Inchannel s	Left Bank Riparian Buffer Condition	
Low suboptimal (1.1) [Left] 0 High marginal (0.85) [Left] 0 Low marginal (0.75) [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 Substrate Silt-Mud Right Bank Riparian Buffer Condition Right Bank Riparian Buffer Condition Optimal (1.5) Right] 0 Low suboptimal (1.2) [Right] 0 Low marginal (0.85) (Right) 0 Low marginal (0.75) [Right] 0 Low morp (0.6) [Right] 0 Low poor (0.5) [Right] 0 Continuity of channel bed and bank Moderate Sincussity of channel bed and bank Moderate Inchannel structure Weak Particle size of stream substrate Weak Inchannel structure Weak Depositional bars or benches Weak Recent allituial deposits Moderate Grade control	Optimal (1.5) [Left]	0
High marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 2 Right Bank 2 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Riparian Buffer Condition 0 Optimal (1.5) [Right] 0 Use suboptimal (1.2) [Right] 0 Use with marginal (0.85) [Right] 0 Use with bank total 0 Stream Geomorphology 0 Continuity of channel bed and bank Moderate Sinussity of channel bed and bank Moderate Use with bank total Weak <td>High suboptimal (1.2) [Left]</td> <td>0</td>	High suboptimal (1.2) [Left]	0
Low marginal (0.75) [Left] 0 Low poor (0.6) [Left] 0 Left bank total 0 Right Bank Steph Bank Height (feet) Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Substrate Sitt-Mud Right Bank Riparian Buffer Condition Sitt-Mud Right Bank Riparian Buffer Condition 0 Optimal (1.5) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (1.2) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.6) [Right] 0 Continuity of channel bed and bank Moderate Stream Geomorphology Stream Geomorphology Continuity of channel along thalweg Weak In-channel structure Weak Particle size of stream substrate Weak Active or relict floodplain Moderate Depositional bars or benches Wea	Low suboptimal (1.1) [Left]	0
High poor (0.6) [Left] 0 Low poor (0.5) [Left] 0 Right Bank Right Bank Right Bank Height (feet) 2 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Substrate 8 Silt-Mud Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Optimal (1.5) [Right] 0 Optimal (1.1) [Right] 0 Optimal (1.1) [Right] 0 Optimal (1.1) [Right] 0 Optimal (0.75) [Ri	High marginal (0.85) [Left]	0
Low poor (0.5) [Left] 0 Right Bank Right Bank Height (feet) 2 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Bank Riparian Buffer Condition Poptinal (1.5) [Right] 0 Optinal (1.5) [Right] 0 Low suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.85) [Right] 0 Low poor (0.5) [Right] 0 Right bank total 0 Stream Geomorphology Continuity of channel bed and bank Moderate Sinucustry 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 Weak Recent alluvial deposits Weak Recent alluvial deposits Weak Headcuts Absent	Low marginal (0.75) [Left]	0
Right Bank Right Bank Height (feet) Right Bank Height (feet) Right Bank Height (feet) Right Bank Slope Right Bank Slope Right Bank Substrate Right Bank Riparian Buffer Condition Poptinal (1.5) [Right] Right Bank Riparian Buffer Condition Right Bank Riparian Buffer Condition Poptinal (1.5) [Right] Right Suboptimal (1.2) [Right] Right Suboptimal (1.2) [Right] Right Bank Riparian Right (1.5) [Right] Right Bank Right (1.5) [Right] Right Each (1.5) [Right] Right	High poor (0.6) [Left]	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 Chumal (1.9 [Right) 0 Chumal (1.1) [Right) 0 Chumal (0.75) [Right) 0 Chumaginal (0.75) [Low poor (0.5) [Left]	0
Right Bank Height (feet) 2 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Erosion Potential Moderate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Low suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low more (0.6) [Right] 0 Low poor (0.6) [Right] 0 Continuity of channel bed and bank Moderate Siruosity of channel along thalweg Weak In-channel structure Weak Active or relict floodplain Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Grade control Weak	Left bank total	0
Right Bank Height (feet) 2 Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Erosion Potential Moderate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 0 Low suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low more (0.6) [Right] 0 Low poor (0.6) [Right] 0 Continuity of channel bed and bank Moderate Siruosity of channel along thalweg Weak In-channel structure Weak Active or relict floodplain Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Grade control Weak	Dight Rank	
Right Bank Slope 8 to 15% (5 to 9 deg) Moderately Sloping Right Erosion Potential Moderate Right Bank Riparian Buffer Condition Right Bank Ripari		2
Right Erosion Potential Moderate 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 Low marginal (0.75) [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 Active or relict floodplain Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Grade control Weak Grade control Weak Grade control Moderate Moderate Moderate Moderate Moderate Moderate Moderate Weak		
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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 (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low 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 Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak		
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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 Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak		
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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 Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak	High suboptimal (1.2) [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 Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak	Lavoranda austina al (4.4) FDial (3.	
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 Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak	Low Supoptimal (1.1) [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 Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak	Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	
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 Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak		0
Stream Geomorphology Continuity of channel bed and bank 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 Weak Headcuts Absent Grade control Weak	High marginal (0.85) [Right]	0
Continuity of channel bed and bank Sinuosity of channel along thalweg Meak In-channel structure Weak Particle size of stream substrate Weak Active or relict floodplain Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak	High marginal (0.85) [Right] Low marginal (0.75) [Right]	0 0 0
Continuity of channel bed and bank Sinuosity of channel along thalweg Meak In-channel structure Weak Particle size of stream substrate Weak Active or relict floodplain Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak	High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0
Sinuosity of channel along thalweg Meak In-channel structure Weak Particle size of stream substrate Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak	High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	0 0 0 0
In-channel structure Weak Particle size of stream substrate Weak Active or relict floodplain Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak	High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0 0
Active or relict floodplain Moderate Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak	High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 0 0 0 0 0 0 Moderate
Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak	High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	0 0 0 0 0 0 Moderate Weak
Depositional bars or benches Weak Recent alluvial deposits Weak Headcuts Absent Grade control Weak	High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0 0 0 0 0 0 Moderate Weak Weak
Recent alluvial deposits Weak Headcuts Absent Grade control Weak	High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	0 0 0 0 0 0 0 Moderate Weak Weak Weak
Headcuts Absent Grade control Weak	High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 0 0 0 0 Woderate Weak Weak Weak Weak Moderate
	High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 0 0 0 0 0 Woderate Weak Weak Weak Weak Weak Weak
Natural valley Moderate	High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 0 0 0 0 0 Woderate Weak Weak Weak Weak Weak Weak Weak Wea
	High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 0 0 0 0 0 Moderate Weak Weak Weak Weak Weak Moderate Weak Moderate Weak Absent

Second or greater order channel	No
Stream Geomorphology Total	10.5

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Weak
Leaf litter	Moderate
Sediment on plants or debris	Moderate
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	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



Upstream photo direction

Ε



Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

Ν

Sketch of Stream



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

S-	Α	1	8.	-1	43

Created	2018-06-08 12:47:45 EDT by Nathan Renaudin
Updated	2018-06-11 09:48:54 EDT by Sam Edmonds
Location	36.4782921, -79.6947593
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/08
Date2	180608

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	143
Resource ID	S-A18-143
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	28.75
Calculated Stream Type	Intermittent
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
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	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	

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)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	High
Left Bank Substrate	Mud or muck, 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
Dight Dook	
Right Bank Right Bank Height (feet)	4
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud
Night Dank Substitute	Sileividu
Right Bank Riparian Buffer Condition	
Right Bank Riparian Buffer Condition Optimal (1.5) [Right]	0
	0
Optimal (1.5) [Right]	
Optimal (1.5) [Right] High suboptimal (1.2) [Right]	0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	0 0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 0 0 0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0 0 0 0 0 0 0 0 0 0 0 Moderate Moderate Moderate
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 0 0 0 0 0 0 0 0 0 0 Moderate Moderate
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 0 0 0 0 0 0 0 0 0 0 0 Moderate Moderate Moderate Moderate
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 0 0 0 0 0 0 0 0 0 0 0 0 Moderate Moderate Moderate Moderate Moderate Moderate Moderate
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 0 0 0 0 0 0 0 0 0 0 0 0 Moderate Moderate Moderate Moderate Weak
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 0 0 0 0 0 0 0 0 0 0 0 0 Moderate Moderate Moderate Moderate Weak Weak
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	0 0 0 0 0 0 0 0 0 0 0 0 Moderate Moderate Moderate Moderate Weak Weak Weak Absent

Second or greater order channel	No
Stream Geomorphology Total	13.5

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Weak
Leaf litter	Moderate
Sediment on plants or debris	Moderate
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	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



Upstream photo direction W



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

W

Sketch of Stream



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

S-	Α	1	8-	-1	4	4

Created	2018-06-08 13:26:36 EDT by Nathan Renaudin
Updated	2018-06-11 09:55:32 EDT by Sam Edmonds
Location	36.4773703, -79.6957725
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/08
Date2	180608

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	144
Resource ID	S-A18-144
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
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S
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	
Channel Alteration Total	0	

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	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Mud or muck, 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
Pight Pank	
Right Bank Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Frasian Potential	LOW
Right Erosion Potential	Low Peat-Muck Silt-Mud
Right Erosion Potential Right Bank Substrate	Low Peat-Muck, Silt-Mud
Right Bank Substrate	
Right Bank Substrate Right Bank Riparian Buffer Condition	Peat-Muck, Silt-Mud
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right]	Peat-Muck, Silt-Mud 0
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right]	Peat-Muck, Silt-Mud 0 0
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	Peat-Muck, Silt-Mud 0 0 0
Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	Peat-Muck, Silt-Mud 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	Peat-Muck, Silt-Mud 0 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	Peat-Muck, Silt-Mud 0 0 0 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	Peat-Muck, Silt-Mud 0 0 0 0 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	Peat-Muck, Silt-Mud 0 0 0 0 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Stream Geomorphology	Peat-Muck, Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	Peat-Muck, Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 0 0 Weak
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	Peat-Muck, Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 0 Weak Moderate
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	Peat-Muck, Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 0 Weak Moderate Weak
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	Peat-Muck, Silt-Mud 0 0 0 0 0 0 0 0 0 0 Weak Moderate Weak Weak
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	Peat-Muck, Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 Weak Moderate Weak Weak Moderate
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	Peat-Muck, Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 0 Weak Moderate Weak Weak Moderate Absent
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	Peat-Muck, Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Weak Moderate Weak Weak Moderate Weak Weak Moderate Weak Weak Weak Moderate Weak

Second or greater order channel	No
Stream Geomorphology Total	9
Stream Hydrology	
Presence of baseflow	Weak
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	7
Stream Biology	
Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Weak

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



Upstream photo direction

NE



Downstream photo direction

Across Stream Photo 1

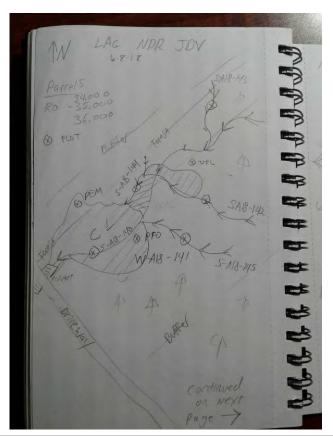
SW



Across stream photo direction 1

W

Sketch of Stream



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

S-	Α	1	8.	-1	45

Created	2018-06-08 13:52:43 EDT by Nathan Renaudin
Updated	2018-06-11 09:56:38 EDT by Sam Edmonds
Location	36.4769592, -79.6959324
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/08
Date2	180608

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	145
Resource ID	S-A18-145
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	20.5
Calculated Stream Type	Intermittent
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

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

Channel Alteration

0
0
0
0
0
0
0

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

Probed Stream Depth 0 to 6 inches Left Bank Left Bank Height (feet) 4 Left Bank Rispre 25 to 35% (14 to 20 deg) Steep Left Bank Silope 25 to 35% (14 to 20 deg) Steep Left Bank Risprana Buffer Condition Deptimal (1.5) [Left] 0 Left Bank Riparian Buffer Condition Deptimal (1.5) [Left] 0 Left Bank Riparian Buffer Condition Deptimal (1.5) [Left] 0 Left Bank Riparian Buffer Condition Deptimal (1.5) [Left] 0 Left Bank Riparian Buffer Condition Left Bank Riparian Buffer Condition Left Bank Riparian Buffer Condition Left Bank Riparian Riparian Riparian Condition Left Bank Riparian Riparian Condition Left Bank Riparian Riparian Condition Left Bank Riparian Riparia	Bankfull Width (ft)	3
Left Bank Height (feet) 4 Left Bank Slope 25 to 35% (14 to 20 deg) Steep Left Brosslon Potential High Left Bank Substrate Silt-Mud Defined (1.5) (Left) Unique suboptimal (1.2) (Left) 0 Left Bank Riparian Buffer Condition 0 Left Bank Riparian (0.5) (Left) 0 Left was marginal (0.75) (Left) 0 Left was marginal (0.75) (Left) 0 Left bank total 0 Left bank total 0 Right Bank Riparian Buffer Condition 0 Right Bank Riparian Buffer (Left) 4 Right Bank Riparian Buffer Condition Silt-Mud Right Bank Riparian Buffer Condition Deptimal (1.5) (Right) Left Bank Riparian Buffer Condition O Left Bank Riparian (0.75) (Right) 0 Left Bank Riparian (0.75) (Right) 0	Probed Stream Depth	0 to 6 inches
Left Bank Height (feet) 4 Left Bank Slope 25 to 35% (14 to 20 deg) Steep Left Brosslon Potential High Left Bank Substrate Silt-Mud Defined (1.5) (Left) Unique suboptimal (1.2) (Left) 0 Left Bank Riparian Buffer Condition 0 Left Bank Riparian (0.5) (Left) 0 Left was marginal (0.75) (Left) 0 Left was marginal (0.75) (Left) 0 Left bank total 0 Left bank total 0 Right Bank Riparian Buffer Condition 0 Right Bank Riparian Buffer (Left) 4 Right Bank Riparian Buffer Condition Silt-Mud Right Bank Riparian Buffer Condition Deptimal (1.5) (Right) Left Bank Riparian Buffer Condition O Left Bank Riparian (0.75) (Right) 0 Left Bank Riparian (0.75) (Right) 0		
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Left Bank Riparian Buffer Condition Deptimal (1.5) [Left] 0 Low suboptimal (1.1) [Left] 0 Low suboptimal (1.2) [Left] 0 Low marginal (0.85) [Left] 0 Low marginal (0.85) [Left] 0 Low marginal (0.85) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 0 Right Bank Height (feet) 4 Right Bank Height (feet) 4 Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Bank Slope 15 to 35% (14 to 20 deg) Steep Right Bank Riparian Buffer Condition Deptimal (1.5) [Right] 0 Ligh suboptimal (1.2) [Right] 0 Ligh suboptimal (1.2) [Right] 0 Ligh suboptimal (1.2) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.85) [Right] 0 Low poor (0.5) [Right] 0 Low p		
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cow suboptimal (1.1) [Left] 0 ligh marginal (0.85) [Left] 0 Low marginal (0.75) [Left] 0 ligh poor (0.6) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 0 Right Bank V Right Bank leight (feet) 4 Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Bank Substrate Silt-Mud Right Bank Riparian Buffer Condition V Optimal (1.5) (Right) 0 Optimal (1.5) (Right) 0 Ligh suboptimal (1.2) (Right) 0 Low suboptimal (1.2) (Right) 0 Ligh marginal (0.85) (Right) 0 Low marginal (0.75) (Right) 0 Ligh poor (0.6) (Right) 0 Low poor (0.5) (Right) 0 Stream Geomorphology Continuity of channel bed and bank Moderate Stream Geomorphology Moderate Continuity of channel along thalweg Moderate Carticle size of stream substrate Weak Active or relict floodplain Absent <	Optimal (1.5) [Left]	0
High marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.5) [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 Bank Substrate Silt-Mud Right Bank Substrate Silt-Mud Right Bank Riparian Buffer Condition Deptimal (1.5) Right] 0 Deptimal (1.5) Right] 0 Leigh bacuptimal (1.1) [Right] 0 Leigh marginal (0.85) [Right] 0 Leigh marginal (0.75) [Right] 0 Leigh poor (0.5) [Right] 0 Low poor (0.5) [Right] 0 Continuity of channel along thalweg Moderate Continuity of channel along thalweg Moderate Particle size of stream substrate Weak Active or relict floodplain Absent Depositional bars or benches Absent	High suboptimal (1.2) [Left]	0
cow marginal (0.75) [Left] 0 left poor (0.6) [Left] 0 left bank total 0 left bank total 0 left bank Kibal 0 left Bank Height (feet) 4 left Bank Slope 25 to 35% (14 to 20 deg) Steep left Bank Slope 15 to 35% (14 to 20 deg) Steep left Bank Slope 15 to 35% (14 to 20 deg) Steep left Bank Slope 15 to 35% (14 to 20 deg) Steep left Bank Slope 15 to 35% (14 to 20 deg) Steep left Bank Slope 15 to 35% (14 to 20 deg) Steep left Bank Slope 15 to 35% (14 to 20 deg) Steep left Bank Slope 16 to 20 deg) Steep left Bank Riparian Buffer Condition left Bank Slope 16 degree 17 to 20 deg Steep left Bank Riparian Buffer Condition left Bank Riparian Buffer	Low suboptimal (1.1) [Left]	0
High poor (0.6) [Left] 0 Low poor (0.5) [Left] 0 Right Bank Right Bank Right Bank Height (feet) 4 Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Bank Substrate Silt-Mud Right Bank Substrate Silt-Mud Right Bank Riparian Buffer Condition Doptimal (1.5) [Right] 0 Low suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (0.25) [Right] 0 Low marginal (0.25) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Right bank total 0 Right bank total 0 Right bank total 0 Right bank total 0 Right bank substrate 0 Right ban	High marginal (0.85) [Left]	0
Left bank total 0 Right Bank Right Bank Right Bank Height (feet) 4 Right Bank House 25 to 35% (14 to 20 deg) Steep Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Bank Slope 35% (14 to 20 deg) Steep Right Bank Riparian Buffer Condition Right Bank Riparian Buffer Condition Puttinal (1.5) (Right) 0 Condition (1.2) (Right) 0	Low marginal (0.75) [Left]	0
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Right Bank Right Bank Height (feet) 4 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 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Low poor (0.5) [Left]	0
Right Bank Height (feet) 25 to 35% (14 to 20 deg) Steep Right Erosion Potential High Right Bank Substrate Silt-Mud Right Bank Riparian Buffer Condition Poptinal (1.5) [Right] 0	Left bank total	0
Right Bank Height (feet) 25 to 35% (14 to 20 deg) Steep Right Erosion Potential High Right Bank Substrate Silt-Mud Right Bank Riparian Buffer Condition Poptinal (1.5) [Right] 0	Dight Dank	
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Right Bank Riparian Buffer Condition Deptimal (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 Low marginal (0.75) [Right] 0 High poor (0.6) [Right] 0 Right bank total 0 Stream Geomorphology Continuity of channel bed and bank Moderate Inchannel structure Moderate Particle size of stream substrate Weak Active or relict floodplain Absent Secent alluvial deposits Weak Recent alluvial deposits Weak Recent alluvial deposits Weak		
Right Bank Riparian Buffer Condition Deptimal (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 Particle size of stream substrate Weak Active or relict floodplain Absent Depositional bars or benches Absent Recent alluvial deposits Weak		
Deptimal (1.5) [Right] 0 I-ligh suboptimal (1.2) [Right] 0 I-ligh suboptimal (1.1) [Right] 0 I-ligh marginal (0.85) [Right] 0 I-ligh marginal (0.75) [Right] 0 I-ligh poor (0.6) [Right] 0 I-ligh poor (0.6) [Right] 0 I-ligh poor (0.5) [Right] 0 I-ligh poor (0.6) [Right] 0 I-ligh poor (0.6) [Right] 0 I-ligh marginal (0.85) [Right] 0 I-ligh partial (0.85) [Right] 0 I-ligh par	Ngit Daik Substrate	Sitt-Muu
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 Particle size of stream substrate Weak Active or relict floodplain Absent Depositional bars or benches Absent Recent alluvial deposits Weak	Right Bank Riparian Buffer Condition	
Low suboptimal (1.1) [Right] 0 Ligh marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Ligh poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 Light bank total 0 Lig	Optimal (1.5) [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 Continuity of channel bed and bank Moderate Sinuosity of channel along thalweg Moderate Particle size of stream substrate Weak Active or relict floodplain Absent Depositional bars or benches Absent Recent alluvial deposits Weak	High suboptimal (1.2) [Right]	0
Low marginal (0.75) [Right] 0 Light 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 Moderate Particle size of stream substrate Weak Active or relict floodplain Absent Depositional bars or benches Absent Recent alluvial deposits Weak	Low suboptimal (1.1) [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 Particle size of stream substrate Weak Active or relict floodplain Absent Depositional bars or benches Absent Recent alluvial deposits Weak	High marginal (0.85) [Right]	0
Low poor (0.5) [Right] 0 Stream Geomorphology Continuity of channel bed and bank Moderate Sinuosity of channel along thalweg Moderate Particle size of stream substrate Weak Active or relict floodplain Absent Depositional bars or benches Absent Recent alluvial deposits Weak	Low marginal (0.75) [Right]	0
Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits O O O O O O O O O O O O O	High poor (0.6) [Right]	0
Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg Moderate n-channel structure Moderate Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Moderate Weak Weak Weak Weak Weak Weak Weak Wea	Low poor (0.5) [Right]	0
Continuity of channel bed and bank Sinuosity of channel along thalweg Moderate n-channel structure Moderate Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Moderate Weak Weak Weak Weak Weak Weak Weak Wea	Right bank total	0
Continuity of channel bed and bank Sinuosity of channel along thalweg Moderate n-channel structure Moderate Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Moderate Weak Weak Weak Weak Weak Weak Weak Wea	Stream Geomorphology	
Moderate n-channel structure Moderate Particle size of stream substrate Weak Active or relict floodplain Depositional bars or benches Recent alluvial deposits Moderate Weak Weak Weak Weak Weak Weak	Continuity of channel bed and bank	Moderate
n-channel structure Moderate Particle size of stream substrate Weak Active or relict floodplain Absent Depositional bars or benches Absent Recent alluvial deposits Weak		
Particle size of stream substrate Active or relict floodplain Absent Depositional bars or benches Absent Recent alluvial deposits Weak	In-channel structure	
Active or relict floodplain Absent Depositional bars or benches Absent Recent alluvial deposits Weak	Particle size of stream substrate	
Depositional bars or benches Absent Recent alluvial deposits Weak	Active or relict floodplain	
Recent alluvial deposits Weak	·	
	Recent alluvial deposits	
	Headcuts	
Grade control Weak		
Natural valley Weak	Grade control	Weak

Second or greater order channel	No
Stream Geomorphology Total	9

Stream Hydrology

Presence of baseflow	Weak
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	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	Weak
Wetland plants in streambed	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

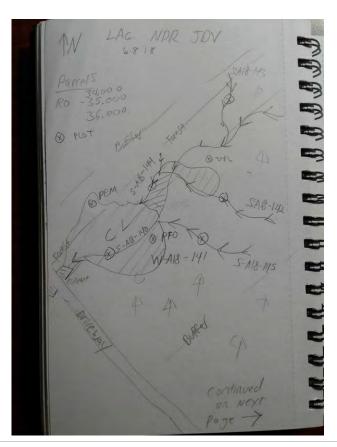
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Across stream photo direction 1

NE

Sketch of Stream



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

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Created	2018-06-08 14:15:07 EDT by Laura Giese
Updated	2018-06-11 09:58:23 EDT by Sam Edmonds
Location	36.4763267, -79.6967131
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	//
Date2	180611

A18
Jeff Vandeveer
NA
146
S-A18-146
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

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)	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	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)	1
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
Right bank total	0
Stream Geomorphology	
Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
in charmer su actul C	Weak
Particle size of stream substrate	Weak
Particle size of stream substrate	Weak
Particle size of stream substrate Active or relict floodplain	Weak Moderate
Particle size of stream substrate Active or relict floodplain Depositional bars or benches	Weak Moderate Absent
Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	Weak Moderate Absent Absent
Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	Weak Moderate Absent Absent Weak
Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Grade control	Weak Moderate Absent Absent Weak Weak

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	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Moderate
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Headwater groundwater seepage stream

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Ν



Downstream photo direction

Across Stream Photo 1

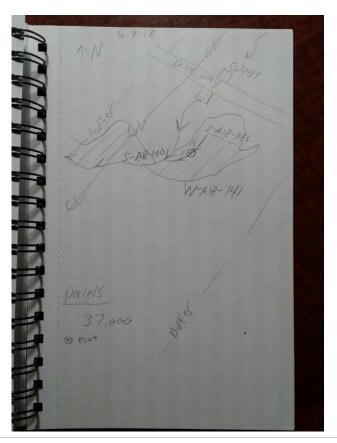
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Across stream photo direction 1

W

Sketch of Stream



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

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Created 2018-06-08 15:35:28 EDT by Nathan Renaudin Updated 2018-06-11 10:03:45 EDT by Sam Edmonds Location 36.4747763, -79.6979145 Status Finalized & Approved Client NextEra Project MVP Southgate Date 18/06/08 Date2 180608		
Location 36.4747763, -79.6979145 Status Finalized & Approved Client NextEra Project MVP Southgate Date 18/06/08	Created	2018-06-08 15:35:28 EDT by Nathan Renaudin
Status Finalized & Approved Client NextEra Project MVP Southgate Date 18/06/08	Updated	2018-06-11 10:03:45 EDT by Sam Edmonds
Client NextEra Project MVP Southgate Date 18/06/08	Location	36.4747763, -79.6979145
Project MVP Southgate Date 18/06/08	Status	Finalized & Approved
Date 18/06/08	Client	NextEra
	Project	MVP Southgate
Date2 180608	Date	18/06/08
	Date2	180608

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin	
Lead Scientist's Initials	A18	
GPS Surveyor	Jeff Vandeveer	
Resource Series Number	147	
Resource ID	S-A18-147	
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	36.25
Calculated Stream Type	Perennial
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 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	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	

OHWM Width (ft)	15
Average Water Width (ft)	10
Bank to Bank (ft)	4
Bankfull Width (ft)	4

Probed Stream Depth	12 to 24 inches
Left Bank	
Left Bark 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 Right Bank Substrate	Moderate Silt-Mud
Right Erosion Potential	Moderate Silt-Mud
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition	Moderate Silt-Mud
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right]	Moderate Silt-Mud 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right]	Moderate Silt-Mud 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	Moderate Silt-Mud 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	Moderate Silt-Mud 0 0 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	Moderate Silt-Mud 0 0 0 0 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	Moderate Silt-Mud 0 0 0 0 0 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	Moderate Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	Moderate Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	Moderate Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Stream Geomorphology Continuity of channel bed and bank	Moderate Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 0 0 Strong
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	Moderate Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 0 0 Strong Strong
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	Moderate Silt-Mud 0 0 0 0 0 0 0 0 0 0 Strong Strong Moderate
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	Moderate Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 Strong Strong Moderate Moderate
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	Moderate Silt-Mud 0 0 0 0 0 0 0 0 0 0 0 Strong Strong Moderate Moderate Moderate Moderate Moderate
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	Moderate Silt-Mud n 0 0 0 0 0 0 0 0 0 0 0 0 0 Strong Strong Moderate Moderate Moderate Moderate Weak
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	Moderate Silt-Mud n 0 0 0 0 0 0 0 0 0 0 0 0 0 Strong Strong Moderate Moderate Moderate Weak Moderate Weak Moderate
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	Moderate Silt-Mud n 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Strong Strong Moderate Moderate Moderate Weak Moderate Weak Moderate Absent

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

Stream Biology

Moderate
Strong
Strong
Weak
Moderate
Strong
Moderate
Moderate
FACW
10.25
State Protected, Corps Jurisdictional

Upstream Stream Photo



Upstream photo direction

NW

Downstream Stream Photo



Downstream photo direction

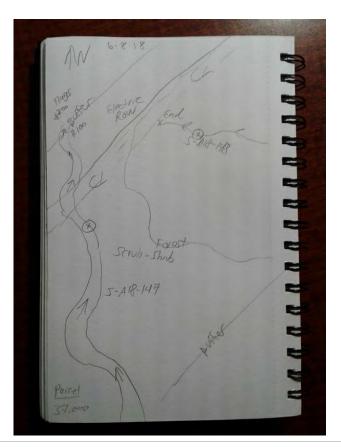
Across Stream Photo 1

SE



Across stream photo direction 1

S



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

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Created	2018-06-08 16:20:36 EDT by Laura Giese
Updated	2018-06-25 10:55:23 EDT by Sam Edmonds
Location	36.4756012, -79.6971135
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	//
Date2	180611

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin	
Lead Scientist's Initials	A18	
GPS Surveyor	Jeff Vandeveer	
GPS ID	NA	
Resource Series Number	148	
Resource ID	S-A18-148	
Do you need to override the resource id?	No	
Passuurca ID = Passuurca Tyna - Scientist Initials - Passuurca Sarias Number		

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

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	15.5
Calculated Stream Type	Ephemeral

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)	2	
Average Water Width (ft)	2	
Bank to Bank (ft)	6	
Bankfull Width (ft)	6	
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 Conditio	on
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	Vegetated
Right Bank Riparian Buffer Conditi	ion
RIGHT DAUK KIDAHAN BUHER CONOIN	
<u> </u>	
Optimal (1.5) [Right]	0
Optimal (1.5) [Right] High suboptimal (1.2) [Right]	0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 0 0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	0 0 0 0 0 0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0 0 0 0 0 0 0 0 0 0 0 0 0 Strong Weak
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	0 0 0 0 0 0 0 0 0 0 0 0 0 Strong Weak Weak
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 0 0 0 0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 0 0 0 0 0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Weak Absent
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent Absent
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent Absent Absent
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent Absent Absent Absent Absent
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Grade control	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent Absent Absent Absent Absent Absent

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?	No
Stream Hydrology Total	2

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
Notes	Broad wash area in upper reach
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

Ν

Additional Stream Photos



Broad wash area in upper reach-Additional of original survey



Downstream

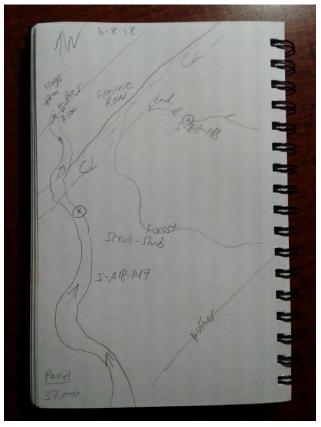


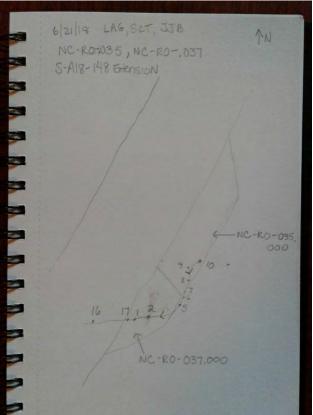
Upstream



Across

Sketch of Stream





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

S-	Δ	1	۵.	.1	5	n
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Created	2018-06-11 12:28:57 EDT by Laura Giese
Updated	2018-06-12 11:42:00 EDT by Sam Edmonds
Location	36.4713621, -79.7010792
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/11
Date2	180611

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	150
Resource ID	S-A18-150
Do you need to override the resource id?	No
Pasourca ID - Pasourca Typa - Scientist Initials	- Pasaurca Sarias Number

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	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)	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	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	Moderate
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	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	9

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?	No
Stream Hydrology Total	2

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
Notes	Channel vegetated through ROW

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Ε

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

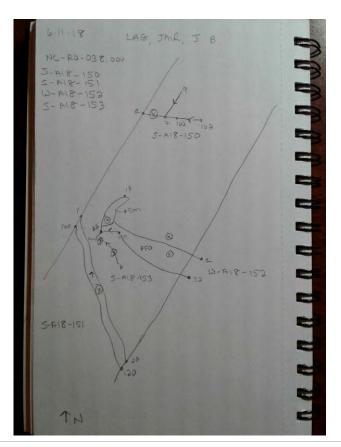
W



Across stream photo direction 1

S

Sketch of Stream



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

S-A	1 Ձ_1	151
J-7	10-	

Created	2018-06-11 15:20:34 EDT by Laura Giese
Updated	2018-06-18 15:54:54 EDT by Sam Edmonds
Location	36.4693929, -79.7027499
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/11
Date2	180611

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	151
Resource ID	S-A18-151
Do you need to override the resource id?	No
Pasource ID = Pasource Type - Scientist Initials	- Pasaurca Sarias Number

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	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)	30
Average Water Width (ft)	15
Bank to Bank (ft)	40
Bankfull Width (ft)	40
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	8
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)	6
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
Night bank total	•
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	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Moderate
Natural valley	Moderate
rvaturar vancy	
Second or greater order channel	Yes

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	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

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

Ν



Across stream photo direction 1

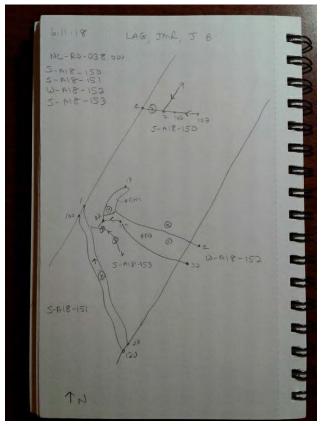
W

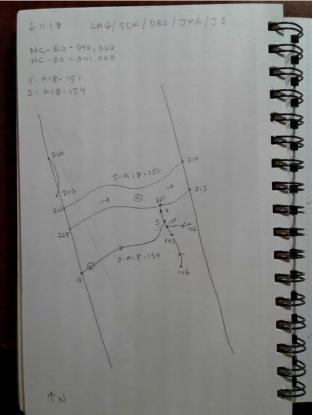
Additional Stream Photos





Sketch of Stream





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

S-	Δ	1	R.	.1	53
	_		O-		

Created	2018-06-11 19:08:01 UTC by Laura Giese
Updated	2018-09-20 19:05:32 UTC by Susie Gifford (SBG)
Location	36.4697694, -79.7025599
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/11
Date2	180611

Resource Crew Info

.18
ake Brillo
JA
53
-A18-153
No
5

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 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	Vegetated
Left Bank Riparian Buffer Condition	١
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
Diaht Doul	
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	Vegetated
Right Bank Riparian Buffer Conditio	on
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
	0
Right bank total	
Right bank total Stream Geomorphology	0
Right bank total Stream Geomorphology Continuity of channel bed and bank	0 Strong
Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0
Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	0 Strong Moderate
Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 Strong Moderate Weak
Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	O Strong Moderate Weak Weak
Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	Strong Moderate Weak Weak Absent
Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	Strong Moderate Weak Weak Absent Absent
Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	Strong Moderate Weak Weak Absent Absent Absent Moderate
Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Grade control	Strong Moderate Weak Weak Absent Absent Absent Moderate Weak
Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Grade control Natural valley Second or greater order channel	Strong Moderate Weak Weak Absent Absent Absent Moderate

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	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	Corps Jurisdictional
Notes	Flags 4 to 6 are ephemeral
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

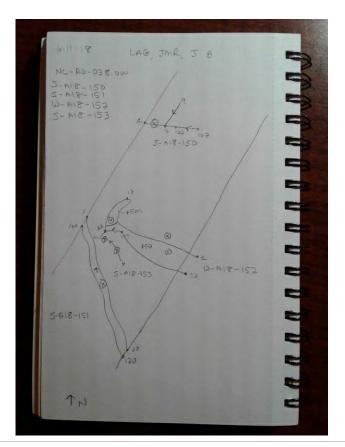
NW



Across stream photo direction 1

SW

Sketch of Stream



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

S-	Δ	1	R-	.1	54
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Created	2018-06-12 09:56:18 EDT by Laura Giese
Updated	2018-06-18 15:24:43 EDT by Sam Edmonds
Location	36.4648749, -79.7030882
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/12
Date2	180612

Resource Crew Info

Field Crew	Laura Giese, Simon King, Doreen Donovan
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	154
Resource ID	S-A18-154
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasaurca Sarias Number

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	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)	2	
Bank to Bank (ft)	4	
Bankfull Width (ft)	4	
Probed Stream Depth	0 to 6 inches	

Left Bank

Left Bank Height (feet)	5
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]	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
Pight Rank	
Right Bank Right Bank Height (feet)	5
Right Bank Height (reet) Right Bank Slope	
	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate Cit M. I. Washington I.
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	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	Yes
Stream Geomorphology Total	11.5

Presence of baseflow	Absent
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	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
Notes	Main series appears altered, Additional photo 1 is 100 series, Additional photo 2 is 200 series, both upstream

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Page: 3 of 6

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

NE



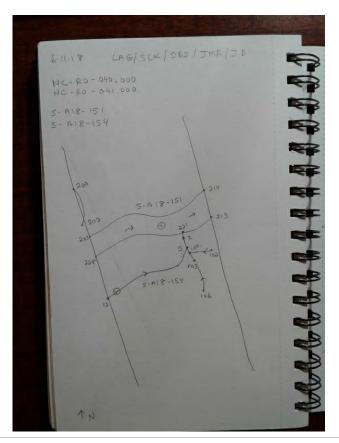
Across stream photo direction 1

Ν





Sketch of Stream



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

S-	Δ	1	۵.	.1	5	6
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Created	2018-06-12 17:12:30 EDT by Laura Giese
Updated	2018-06-13 11:31:14 EDT by Sam Edmonds
Location	36.5247731, -79.6479571
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/12
Date2	180612

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	156
Resource ID	S-A18-156
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasourca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	15
Calculated Stream Type	Ephemeral

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)	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	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	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
·	

Presence of baseflow	Absent
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?	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
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Channel appears straightened
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction NW



Downstream photo direction

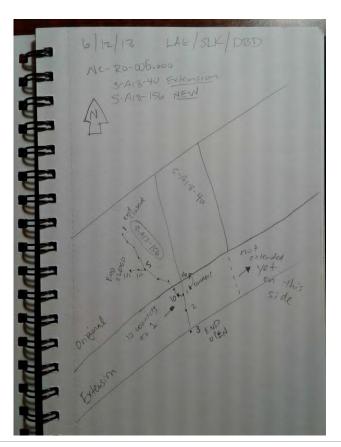
Across Stream Photo 1

SE



Across stream photo direction 1

SW



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

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Created	2018-06-13 12:27:03 EDT by Laura Giese
Updated	2018-06-14 13:47:57 EDT by Sam Edmonds
Location	36.5282902, -79.6443542
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/13
Date2	180613

Resource Crew Info

Field Crew	Laura Giese, Simon King, Doreen Donovan
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	157
Resource ID	S-A18-157
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
Calculated Stream Type	Ephemeral

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)	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)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
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	Moderate
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	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	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Absent
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	8
Stream decinor photogy Total	

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	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

Ε



Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

S



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

S-	Δ	1	Q _	1	55	2
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Created	2018-06-13 13:08:32 EDT by Laura Giese
Updated	2018-06-14 13:48:45 EDT by Sam Edmonds
Location	36.5286065, -79.6439707
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/13
Date2	180613

Resource Crew Info

Field Crew	Laura Giese, Simon King, Doreen Donovan
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	158
Resource ID	S-A18-158
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	26
Calculated Stream Type	Intermittent

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)	2	
Bankfull Width (ft)	2	
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	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	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated
Dight Dank Dinarian Duffer Condition	
Right Bank Riparian Buffer Condition	0
Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Ligh marginal (0.95) [Right]	
High marginal (0.85) [Right]	0
Ligh page (0.0.75) [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
	Moderate
Headcuts	
Headcuts Grade control	Weak
	Weak Weak
Grade control	

Stream Hydrology

Presence of baseflow	Strong
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	8.5

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	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

Ν



Downstream photo direction

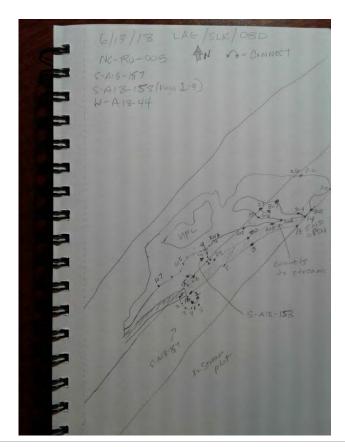
Across Stream Photo 1

S



Across stream photo direction 1

W



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

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Created	2018-06-13 19:41:29 UTC by Laura Giese
Updated	2018-09-20 19:05:53 UTC by Susie Gifford (SBG)
Location	36.5092692, -79.6637306
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/13
Date2	180613

Resource Crew Info

Field Crew	Laura Giese, Simon King, Doreen Donovan
Lead Scientist's Initials	A18
GPS Surveyor	Laura Giese
GPS ID	NA
Resource Series Number	159
Resource ID	S-A18-159
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	18
Calculated Stream Type	Ephemeral

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)	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)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated, Leaves
Left bank Substrate	vegetateu, 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
Dight Pank	
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]	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	Strong
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	11
Stream decimorphiciogy rotal	

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	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
Ctura and Outside in Demant Plants	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Ν



Downstream photo direction

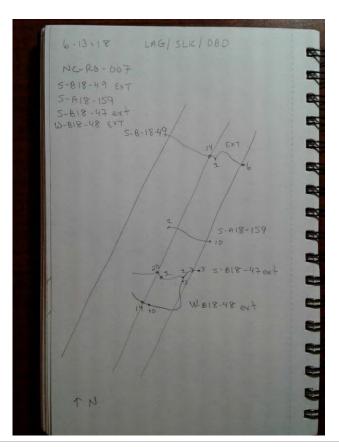
Across Stream Photo 1

c



Across stream photo direction 1

W



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

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Created	2018-06-14 12:58:29 EDT by Laura Giese			
Updated	2018-06-15 09:24:51 EDT by Sam Edmonds			
Location	36.5053897, -79.6677131			
Status	Finalized & Approved			
Client	NextEra			
Project	MVP Southgate			
Date	18/06/14			
Date2	180614			

Resource Crew Info

Joe Roy, Laura Giese, Simon King, Susan Thebert	
A18	
Simon King	
NA	
160	
S-A18-160	
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	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)	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	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]	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, 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	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	10
. 53	

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Strong
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
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
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Channel doesn't continue downslope.
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

Е



Downstream photo direction

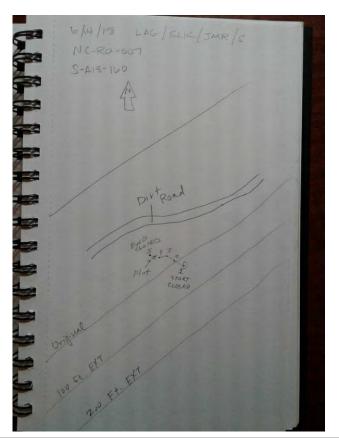
Across Stream Photo 1

SW



Across stream photo direction 1

S



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

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Created	2018-06-18 10:06:59 EDT by Laura Giese
Updated	2018-06-19 12:03:56 EDT by Sam Edmonds
Location	36.1610423, -79.4575485
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/18
Date2	180618

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	161
Resource ID	S-A18-161
Do you need to override the resource id?	No
Pasourca ID = Pasourca Typa - Scientist Initials - Pasourca Sarias Number	

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	18
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)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Long Book House (Co. 1)	
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
Pight Pank	
Right Bank	1
Right Bank Height (feet)	8 to 15% (5 to 9 deg) Moderately Sloping
Right Bank Slope	
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	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	7.5
St. cam deamarphology rotal	

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	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
Notes	Short headwater low channel leads into offsite pond
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

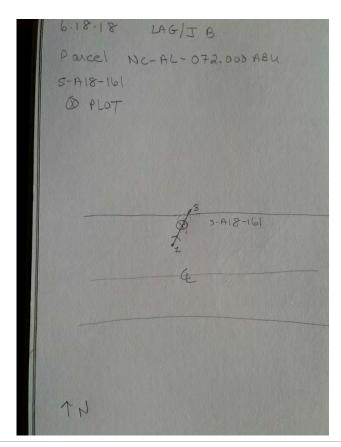
Across Stream Photo 1

N



Across stream photo direction 1

W



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

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Created	2018-06-18 11:23:31 EDT by Laura Giese
Updated	2018-06-19 12:04:57 EDT by Sam Edmonds
Location	36.2083465, -79.5112005
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/18
Date2	180618

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	162
Resource ID	S-A18-162
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials -	- Resource Series Number

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 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)	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	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Sand, Vegetated
Dicht Bank Binanian Buffon Condition	
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	Absent
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	8
1 6	

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Strong
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	8.5

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
Notes	Headwater groundwater seepage stream

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

NW



Across stream photo direction 1

Ν



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

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Created	2018-06-18 17:05:58 UTC by Laura Giese
Updated	2018-09-20 19:16:27 UTC by Susie Gifford (SBG)
Location	36.2063637, -79.507989
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/18
Date2	180618

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	164
Resource ID	WB-A18-164
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-164
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	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

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	
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, Corps Jurisdictional

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction SE



Downstream photo direction

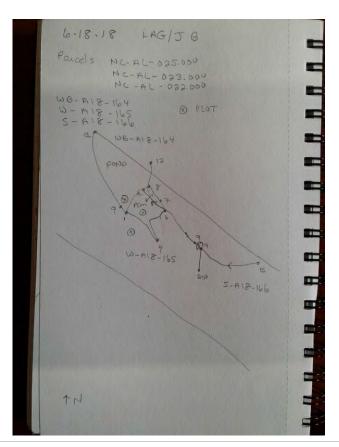
Across Stream Photo 1

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Across stream photo direction 1

NE



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

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Created	2018-06-18 14:46:59 EDT by Laura Giese
Updated	2018-06-19 12:08:47 EDT by Sam Edmonds
Location	36.2056615, -79.5074077
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/18
Date2	180618

Field Crew	Joe Roy, Laura Giese, Jake Brillo	
Lead Scientist's Initials	A18	
GPS Surveyor	Jake Brillo	
GPS ID	NA	
Resource Series Number	166	
Resource ID	S-A18-166	
Do you need to override the resource id?	No	
Pasourca ID = Pasourca Typa - Scientist Initials - Pasourca Series Number		

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	28.5
Calculated Stream Type	Intermittent

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)	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	Moderate
Left Bank Substrate	Vegetated
Left Bank Riparian Buffer Condition	on
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	Vegetated
Right Bank Riparian Buffer Condit	ion
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	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Moderate
Natural valley	Moderate
Natural valley Second or greater order channel	Moderate No

Stream Hydrology

Presence of baseflow	Moderate
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	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Strong
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Ciara Cara in Bara in Blanca	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

SE



Downstream photo direction

Across Stream Photo 1

NW



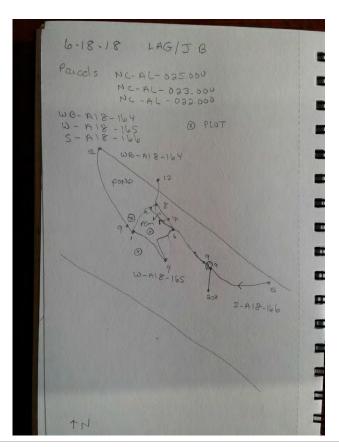
Across stream photo direction 1

NE





Sketch of Stream



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

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Created	2018-06-19 09:01:47 EDT by Jake Brillo
Updated	2018-06-20 11:16:07 EDT by Sam Edmonds
Location	36.2010675576, -79.5016798564
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/19
Date2	180619

Field Crew	Laura Giese, Jacob Brillo, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Jacob Brillo
GPS ID	NA
Resource Series Number	168
Resource ID	S-A18-168
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	18.75
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SE
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)	1
Average Water Width (ft)	0
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

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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	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]	1	
Low marginal (0.75) [Left]	0	
High poor (0.6) [Left]	0	
Low poor (0.5) [Left]	0	
Left bank total	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	Mud or muck

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	Absent
In-channel structure	Absent
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Moderate
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	4.5

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Weak
Leaf litter	Moderate
Sediment on plants or debris	Moderate
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	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	6.75
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Connects to W A18 167
Stream Overview Report Photos	

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

SE





Sketch of Stream



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

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Created	2018-06-19 12:46:39 EDT by Laura Giese
Updated	2018-06-20 08:48:45 EDT by Sam Edmonds
Location	36.3567511, -79.6149021
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/19
Date2	180619

Laura Giese, Jake Brillo, Susan Thebert
A18
Jake Brillo
NA
169
S-A18-169
No

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	18
Calculated Stream Type	Ephemeral

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)	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)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated
Left bank Substrate	vegetateu
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
2.1.2	
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	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	Absent
Headcuts	Moderate
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	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
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

Ε



Downstream photo direction

Across Stream Photo 1

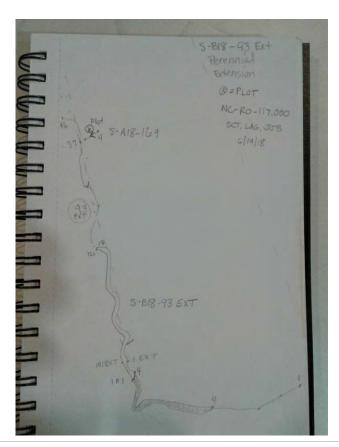
W



Across stream photo direction 1

S

Sketch of Stream



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

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Created	2018-06-19 14:39:06 EDT by Laura Giese
Updated	2018-06-20 09:44:52 EDT by Sam Edmonds
Location	36.3605609, -79.6169587
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/19
Date2	180619

Field Crew	Laura Giese, Jake Brillo, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	170
Resource ID	S-A18-170
Do you need to override the resource id?	No
Passaures ID = Passaures Type Scientist Initials	

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	15.5
Calculated Stream Type	Ephemeral

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)	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)	3
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
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	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
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	Moderate
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	8.5
	

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
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
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

NE



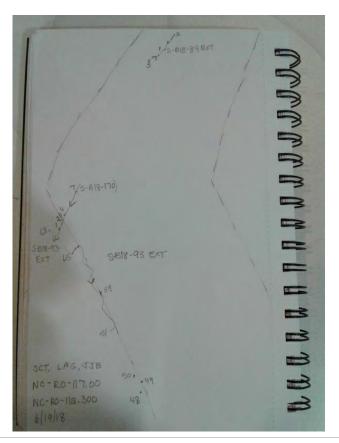
Downstream photo direction

Across Stream Photo 1

SW



Sketch of Stream



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

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Created	2018-06-20 11:21:32 EDT by Laura Giese
Updated	2018-06-21 07:58:44 EDT by Sam Edmonds
Location	36.3776486, -79.6247556
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/20
Date2	180620

Field Crew	Laura Giese, Jake Brillo, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	171
Resource ID	S-A18-171
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	20.5
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)	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	1
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 Conditio	on
Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
	0
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	
Low suboptimal (1.1) [Right]	0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 0 0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	0 0 0 0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0 0 0 0 0 0 0 0 0 Strong Weak
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	0 0 0 0 0 0 0 0 0 Strong Weak Weak
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 0 0 0 0 0 0 0 Strong Weak Weak Weak
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Weak Absent Absent
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent Absent Absent
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent Absent Absent Weak
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Grade control	0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent Absent Absent Weak Absent
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Absent Absent Absent Weak

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
Wetland plants in streambed	OBL
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Vegetated stream bottom R4SB7. Additional photo on downstream end.

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

NE



Downstream photo direction

Across Stream Photo 1

SW



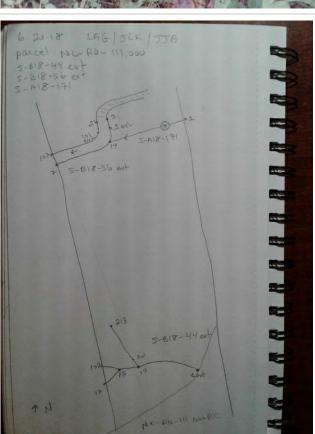
Across stream photo direction 1

Ν

Additional Stream Photos



Sketch of Stream



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

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Created	2018-06-20 14:26:54 EDT by Laura Giese
Updated	2018-06-21 07:59:35 EDT by Sam Edmonds
Location	36.4001176, -79.6431828
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/20
Date2	180620

Field Crew	Laura Giese, Jake Brillo, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	172
Resource ID	S-A18-172
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	41
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 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)	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	25 to 35% (14 to 20 deg) Steep
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
Ecit Balik total	
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]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
	0
Ligh page (0.6) [Right]	
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	Moderate
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Strong
Natural valley	Strong
Second or greater order channel	Yes

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	Strong
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	11
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

S



Downstream photo direction

Across Stream Photo 1

Ν



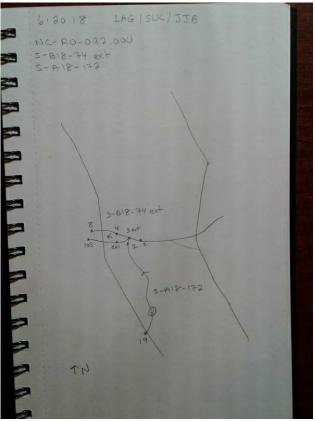
Across stream photo direction 1

NE

Additional Stream Photos



Sketch of Stream



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

WB-A18-17	3
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Created	2018-06-21 15:21:20 UTC by Laura Giese
Updated	2018-09-20 19:16:57 UTC by Susie Gifford (SBG)
Location	36.4331328, -79.6703645
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/21
Date2	180621

Field Crew	Laura Giese, Jake Brillo, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	173
Resource ID	WB-A18-173
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-173
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

|--|

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)	210
Probed Stream Depth	> 36 inches

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

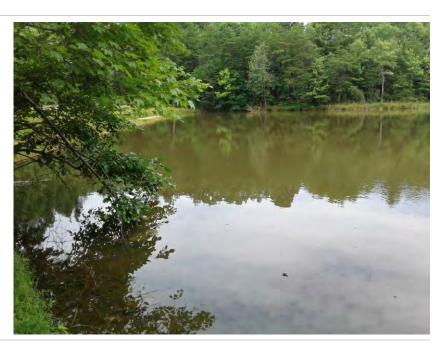
Stream Hydrology Total 0

Stream Biology

Stream Biology Total 0

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

NW



Downstream photo direction

Across Stream Photo 1

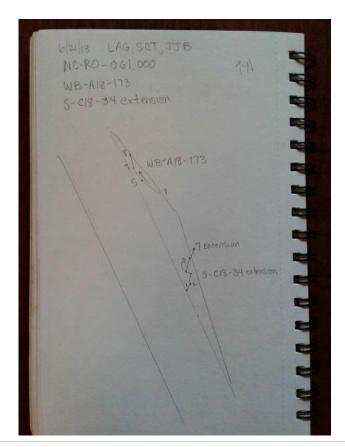
SE



Across stream photo direction 1

NE

Sketch of Stream



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

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Created	2018-06-21 12:56:22 EDT by Laura Giese
Updated	2018-06-26 15:06:48 EDT by Sam Edmonds
Location	36.4281763, -79.6608989
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/21
Date2	180621

A18
Jake Brillo
NA
174
S-A18-174
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	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)	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	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated
Left Bank Substrate	Site-Wood, 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
2.1.2	
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, 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	Absent
Headcuts	Moderate
Grade control	Weak
Natural valley	Strong
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	Moderate
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	Torsional headwater stream

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

SW

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

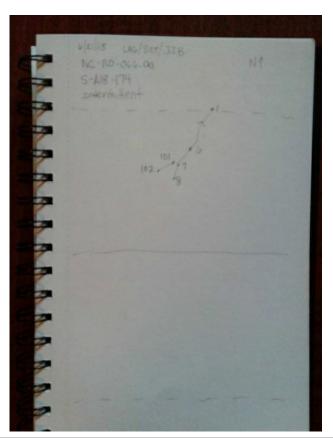
NE



Across stream photo direction 1

Ν

Sketch of Stream



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

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Created	2018-06-22 19:39:12 UTC by Jeremy Hummel [Sabal]
Updated	2018-09-13 15:12:55 UTC by Phil Jacques
Location	36.3516037, -79.6120529
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/22
Date2	180622

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	LAG
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	176
Resource ID	S-A18-176
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-176
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

_	
Stream / Waterbody Type	Perennial
Calculated Stream Score	40.75
Calculated Stream Type	Perennial
Wildlife Observed	Fish
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 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	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)	14
Average Water Width (ft)	8

Bank to Bank (ft)	18
Bankfull Width (ft)	18
Probed Stream Depth	6 to 12 inches
L. G. D l.	
Left Bank	
Left Bank Height (feet)	8
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Sand, Silt-Mud, Organic, 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]	0.85
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.85
B: 1 - B - 1	
Right Bank	
Right Bank Height (feet)	6
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Sand, Silt-Mud, Organic, Vegetated
Right Bank Riparian Buffer Condition	n
Optimal (1.5) [Right]	
	0
High suboptimal (1.2) [Right]	
High suboptimal (1.2) [Right]	0
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	0 0 0
High suboptimal (1.2) [Right]	0
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	0 0 0 0.85
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	0 0 0 0.85
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0.85 0
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	0 0 0 0.85 0 0
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 0 0 0.85 0 0 0 0
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	0 0 0 0.85 0 0 0 0 0.85 Strong
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0 0 0 0.85 0 0 0 0.85 Strong Weak
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	0 0 0 0.85 0 0 0 0 0 Strong Weak Weak
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 0 0 0.85 0 0 0 0 0 0 0 Strong Weak Weak Weak
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 0 0 0.85 0 0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Weak Moderate
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 0 0 0.85 0 0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Weak Moderate Moderate
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 0 0 0.85 0 0 0 0 0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Moderate Moderate Moderate Moderate
High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 0 0 0.85 0 0 0 0 0 0 0 0 0 0 Strong Weak Weak Weak Weak Moderate Moderate

Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	18

Stream Hydrology

Presence of baseflow	Moderate
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	10

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Moderate
Fish	Moderate
Crayfish	Moderate
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	12.75
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction	SW
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Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

NE



Across stream photo direction 1

Ε

Across Stream Photo 2



Across stream photo direction 2
Additional Stream Photos

W



Downstream NE ext



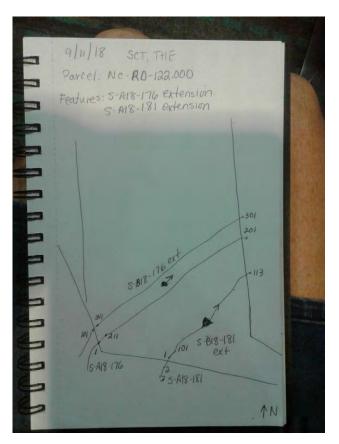
Upstream SE ext



Across N ext

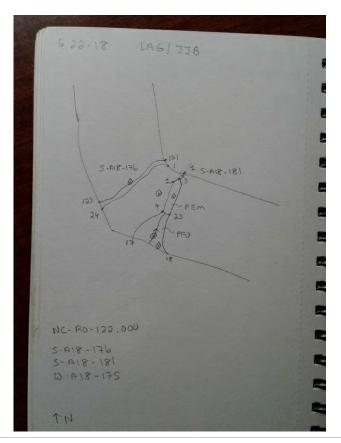


Across S ext



sketch of stream extension

Sketch of Stream



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

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Created	2018-06-22 10:14:03 EDT by Laura Giese
Updated	2018-06-26 15:05:56 EDT by Sam Edmonds
Location	36.1222358, -79.3724343
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/22
Date2	180622

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	177
Resource ID	S-A18-177
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	32
Calculated Stream Type	Perennial

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)	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)	2
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	1
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	Sand, Vegetated
Dight Dank Dinarian Duffer Conditio	
Right Bank Riparian Buffer Conditio	
Optimal (1.5) [Right]	0
11:-bbtim1 (4 3) [D:-b-1]	
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 0 0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	0 0 0 0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0 0 0 0 0 0 0 0 0 Strong Moderate
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	0 0 0 0 0 0 0 0 0 Strong Moderate Moderate
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 0 0 0 0 0 0 0 0 Strong Moderate Moderate Strong
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 0 0 0 0 0 0 0 0 0 Strong Moderate Moderate Strong Absent
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 0 0 0 0 0 0 0 Strong Moderate Moderate Strong Absent Weak
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 0 0 0 0 0 0 0 0 0 Strong Moderate Moderate Strong Absent Weak Absent
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	0 0 0 0 0 0 0 0 0 Strong Moderate Moderate Strong Absent Weak Absent Absent
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Grade control	0 0 0 0 0 0 0 0 Strong Moderate Moderate Strong Absent Weak Absent Weak Absent Weak

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
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	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Absent
Stream Biology Total	9
Stream Overview Report Photos	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction NW

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

NE

Additional Stream Photos

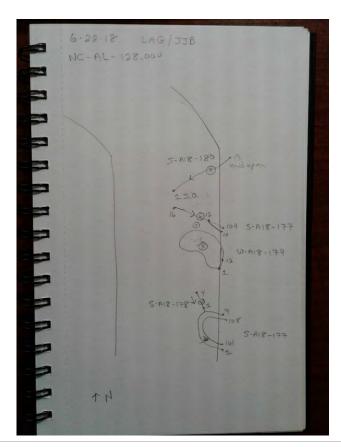


Downstream portion facing downstream



Downstream portion facing upstream

Sketch of Stream



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

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Created	2018-06-22 10:21:06 EDT by Laura Giese
Updated	2018-06-27 09:18:57 EDT by Sam Edmonds
Location	36.1223781, -79.3725885
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/22
Date2	180622

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	178
Resource ID	S-A18-178
Do you need to override the resource id?	No
Description ID - Description Colembiat Initials	Pagaurga Cariag Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	17.5
Calculated Stream Type	Ephemeral

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	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)	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 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

Absent	
Absent	
6	
	Absent Absent Absent Absent Absent Absent Absent Absent Absent

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

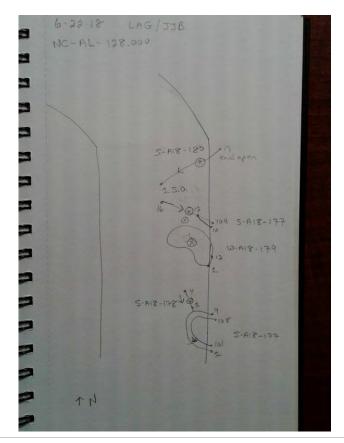
S



Across stream photo direction 1

SW

Sketch of Stream



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

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Created	2018-06-22 12:21:12 EDT by Laura Giese
Updated	2018-06-26 15:07:09 EDT by Sam Edmonds
Location	36.1241504, -79.3721689
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/22
Date2	180622

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	180
Resource ID	S-A18-180
Do you need to override the resource id?	No
Pasource ID = Pasource Type - Scientist Initials - Pasource Series Number	

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	24.5
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)	4	
Bankfull Width (ft)	4	
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	Sand, Vegetated
Left Bank Riparian Buffer Conditio	on
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	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated
Right Bank Riparian Buffer Conditi	ion
Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	
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	Absent
	Absent
Depositional bars or benches	
Recent alluvial deposits	Absent
· · · · · · · · · · · · · · · · · · ·	Absent Weak
Recent alluvial deposits	
Recent alluvial deposits Headcuts	Weak
Recent alluvial deposits Headcuts Grade control	Weak Moderate

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	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Absent
Algae	Absent
Stream Biology Total	6.5
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction NE

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

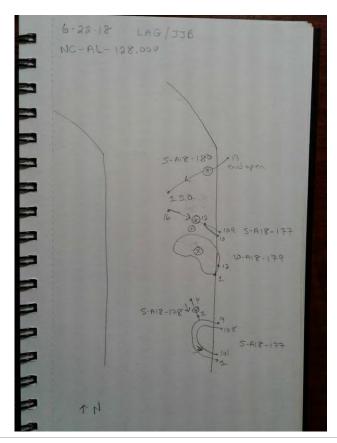
SW



Across stream photo direction 1

S

Sketch of Stream



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

S-A1	18-1	I 2 1
J-M	1 O-	

Created	2018-06-22 20:14:51 UTC by Laura Giese
Updated	2018-09-20 19:06:20 UTC by Susie Gifford (SBG)
Location	36.3510614, -79.6112717
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/22
Date2	180622

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	181
Resource ID	S-A18-181
Do you need to override the resource id?	No
Pasource ID = Pasource Type - Scientist Initials - Pasource Series Number	

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

Stream Inventory

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

Stream Conditions

Water Flow Velocity	Slow (< 1 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)	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]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
	0
High marginal (0.85) [Left]	
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
Disht Dank Disasian Duffer Condition	
Right Bank Riparian Buffer Condition	0
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	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	10.5
Sa cam deomorphology rotal	10.5

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Weak
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	Weak
Amphibians	Weak
Algae	Absent
Stream Biology Total	7
Notes	Groundwater seepage stream
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction SW

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

NE



Across stream photo direction 1

NW

Additional Stream Photos



Upstream SW ext



Downstream NE ext

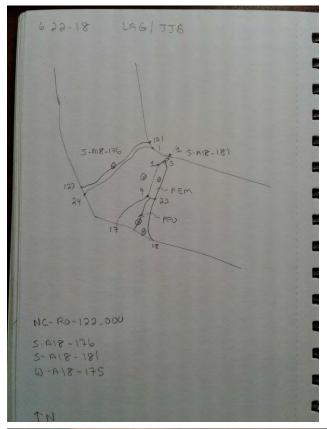


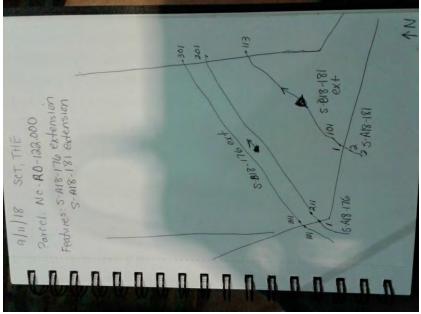
Across S ext



Across N ext

Sketch of Stream





sketch of stream extension

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

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Created	2018-06-23 08:46:21 EDT by Laura Giese
Updated	2018-06-26 15:07:21 EDT by Sam Edmonds
Location	36.2746887, -79.5584437
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/23
Date2	180623

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	182
Resource ID	S-A18-182
Do you need to override the resource id?	No
Pasource ID = Pasource Type - Scientist Initials - Pasource Series Number	

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	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)	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)	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	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated
Dicht Bank Binanian Buffon Condition	
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	Strong
Second or greater order channel	No
Stream Geomorphology Total	7.5
1 00	

Stream Hydrology

Presence of baseflow	Moderate
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	8

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	OBL
Stream Biology Total	7.5
Notes	Narrow fringe of hydrophytic vegetation on banks
Character Character District	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Ν



Downstream photo direction

Across Stream Photo 1

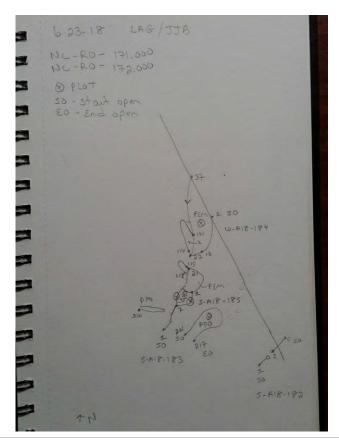
SW



Across stream photo direction 1

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Sketch of Stream



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Created	2018-06-23 11:01:30 EDT by Laura Giese		
Updated	2018-06-26 15:07:52 EDT by Sam Edmonds		
Location	36.2747995, -79.5590965		
Status	Finalized & Approved		
Client	NextEra		
Project	MVP Southgate		
Date	18/06/23		
Date2	180623		

Laura Giese, Jake Brillo
A18
Jake Brillo
NA
183
S-A18-183
No

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

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	35.5
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)	4	
Average Water Width (ft)	4	
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	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
Disht Dank Disasian Duffey Canditia	
Right Bank Riparian Buffer Condition	
Optimal (1.5) [Right]	0
11:-bbti	
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	0 0 0 0 0 0 0
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0 0 0 0 0 0 0 0 Strong Strong
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	0 0 0 0 0 0 0 0 0 Strong Strong Moderate
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 0 0 0 0 0 0 0 0 Strong Strong Moderate Strong
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 0 0 0 0 0 0 0 0 0 Strong Strong Strong Weak
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 0 0 0 0 0 0 0 0 Strong Strong Moderate Strong Weak Weak
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	0 0 0 0 0 0 0 0 Strong Strong Strong Weak Weak Absent
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	0 0 0 0 0 0 0 0 0 Strong Strong Moderate Strong Weak Weak Absent Absent
Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts Grade control	0 0 0 0 0 0 0 0 Strong Strong Woderate Strong Weak Weak Absent Absent Weak

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	Absent
Crayfish	Moderate
Amphibians	Weak
Algae	Absent
Stream Biology Total	9.5
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

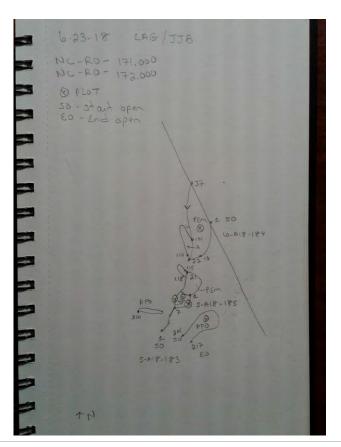
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Across stream photo direction 1

SE

Sketch of Stream



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Created	2018-06-23 12:10:16 EDT by Jake Brillo
Updated	2018-06-26 10:31:37 EDT by Sam Edmonds
Location	36.2695266232, -79.5359998007
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/23
Date2	180623

Field Crew	Laura Giese, Jacob Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jacob Brillo
GPS ID	NA
Resource Series Number	185
Resource ID	S-A18-185
Do you need to override the resource id?	No
Description ID - Description Time Colembiat Initials	Dogovingo Coving Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent	
Calculated Stream Score	19	
Calculated Stream Type	Intermittent	
Wildlife Observed	Frogs	

Stream Conditions

Water Flow Velocity	Dry or Minimal	
Direction of Flow	SW	
Channel condition	Poor	
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)	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)	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]	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)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud
Distribution of the Distribution of the Country	• • • •
Right Bank Riparian Buffer Condit 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	Weak
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	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Moderate
Natural valley	Absent
C	
Second or greater order channel	No

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Moderate
Leaf litter	Moderate
Sediment on plants or debris	Moderate
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	Moderate
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Moderate
Amphibians	Weak
Algae	Moderate
Wetland plants in streambed	OBL
Stream Biology Total	8
Stream Overview Report Photos	

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

SW



Across Stream Photo 2



Across stream photo direction 2

Ε

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Created	2018-05-10 13:10:31 UTC by James Bolduc	
Updated	2018-09-20 19:30:05 UTC by Susie Gifford (SBG)	
Location	36.0981663, -79.382632	
Status	Finalized & Approved	
Client	NextEra	
Project	MVP Southgate	
Date	18/05/10	
Date2	180510	

Field Crew	Jim Bolduc, Tony Tredway	
Lead Scientist's Initials	B18	
GPS Surveyor	Tony Tredway	
GPS ID	NA	
Resource Series Number	1	
Resource ID	WB-B18-1	
Do you need to override the resource id?	Yes	
Resource ID Override	WB-B18-1	
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
Observed Use	Swimming, Fishing, Irrigation

Stream Conditions

Direction of Flow	SW
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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
Notes	Manmade irrigation pond for tobacco fields

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

Ε



Across stream photo direction 1

NE

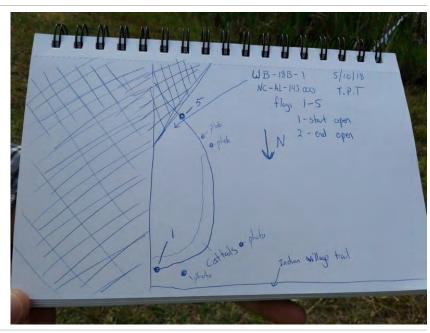
Across Stream Photo 2



Across stream photo direction 2

Ν

Sketch of Stream



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Created	2018-05-10 14:37:03 UTC by James Bolduc	
Updated	2018-09-13 15:10:44 UTC by Phil Jacques	
Location	36.1001062, -79.3893178	
Status	Finalized & Approved	
Client	NextEra	
Project	MVP Southgate	
Date	18/05/10	
Date2	180510	

Field Crew	Jim Bolduc, Tony Tredway	
Lead Scientist's Initials	B18	
GPS Surveyor	Tony Tredway	
GPS ID	NA	
Resource Series Number	2	
Resource ID	S-B18-2	
Do you need to override the resource id?	Yes	
Resource ID Override	S-B18-2	
Resource ID = Resource Type - Scientist Initials	- Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	15
Calculated Stream Type	Ephemeral
Wildlife Observed	none
Observed Use	irrigation pond overflow

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	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)	0	

Bank to Bank (ft)	3
Bankfull Width (ft)	1
Probed Stream Depth	0 to 6 inches
Left Dank	
Left Bank	
Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential Left Bank Substrate	Low Cobble-Gravel
Left Balik Substrate	CODDIe-Graver
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
Diabt Dank	
Right Bank	1-
Right Bank Height (feet)	1.5
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	Modern de
Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Strong
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	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	Weak
Organic debris lines or piles	Absent
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	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	5
Regulatory Status	State Protected
Notes	Regulated - on USGS topographic map

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Ε



Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

SE

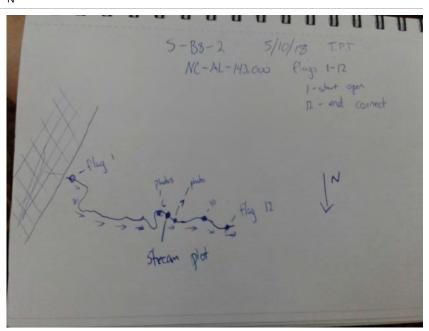
Across Stream Photo 2



Across stream photo direction 2

Sketch of Stream

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Created	2018-05-10 15:30:49 UTC by James Bolduc
Updated	2018-09-13 15:11:07 UTC by Phil Jacques
Location	36.1001062, -79.3893178
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/10
Date2	180510

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	3
Resource ID	S-B18-3
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-3
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Stream / Waterbody Type	mermiten
Calculated Stream Score	20
Calculated Stream Type	Intermittent
Wildlife Observed	none
Observed Use	continuation of irrigation pond overflow

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW
Channel condition	Poor
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)	0

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	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	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)	1
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
	Cand
Right Bank Substrate	Sand
	Salid
Right Bank Riparian Buffer Condition	
Right Bank Riparian Buffer Condition Optimal (1.5) [Right]	1.5
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right]	1.5 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	1.5 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	1.5 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	1.5 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	1.5 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	1.5 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	1.5 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	1.5 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	1.5 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	1.5 0 0 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	1.5 0 0 0 0 0 0 0 0 0 1.5
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	1.5 0 0 0 0 0 0 0 1.5 Moderate Weak
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	1.5 0 0 0 0 0 0 0 0 1.5 Moderate Weak Weak
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	1.5 0 0 0 0 0 0 0 1.5 Moderate Weak Weak Weak
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	1.5 0 0 0 0 0 0 0 0 1.5 Moderate Weak Weak Weak Weak
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	1.5 0 0 0 0 0 0 0 1.5 Moderate Weak Weak Weak Weak Weak Moderate

Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	9.5

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Absent
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	Other
Stream Biology Total	5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Transitions back to ephemeral off ROW
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

Ε



Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

NE

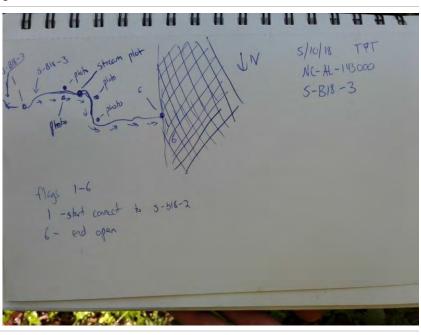
Across Stream Photo 2



Across stream photo direction 2

Sketch of Stream

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Created	2018-05-10 16:14:03 UTC by James Bolduc
Updated	2018-09-20 19:25:58 UTC by Susie Gifford (SBG)
Location	36.088668, -79.4079651
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/10
Date2	180510

Jim Bolduc, Tony Tredway
B18
Tony Tredway
NA
4
S-B18-4
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	
Wildlife Observed	Frogs	
Observed Use	Drainage	

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W
Channel condition	Suboptimal
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)	2
Average Water Width (ft)	1
Bank to Bank (ft)	2

Bankfull Width (ft)	1
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	Low
Left Bank Substrate	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
Dicht Book	
Right Bank	1
Right Bank Height (feet)	
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	Low
Pight Pank Substrato	Sand
Right Bank Substrate	Sand
Right Bank Riparian Buffer Condition	Sand
-	Sand 1.5
Right Bank Riparian Buffer Condition	
Right Bank Riparian Buffer Condition Optimal (1.5) [Right]	1.5
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right]	1.5 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	1.5 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	1.5 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	1.5 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	1.5 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	1.5 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	1.5 0 0 0 0 0
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	1.5 0 0 0 0 0 0 0 1.5
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	1.5 0 0 0 0 0 0 0 1.5
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	1.5 0 0 0 0 0 0 0 0 0 1.5
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	1.5 0 0 0 0 0 0 0 0 1.5 Moderate Weak Weak
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	1.5 0 0 0 0 0 0 0 1.5 Moderate Weak Weak Weak
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	1.5 0 0 0 0 0 0 0 0 1.5 Moderate Weak Weak Weak Absent
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	1.5 0 0 0 0 0 0 0 1.5 Moderate Weak Weak Weak Absent Absent
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits	1.5 0 0 0 0 0 0 0 0 1.5 Moderate Weak Weak Weak Weak Absent Absent Absent
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	1.5 0 0 0 0 0 0 0 1.5 Moderate Weak Weak Weak Absent Absent
Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches Recent alluvial deposits Headcuts	1.5 0 0 0 0 0 0 0 0 1.5 Moderate Weak Weak Weak Weak Absent Absent Absent Weak

Second or greater order channel	No
Stream Geomorphology Total	7

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?	Yes
Stream Hydrology Total	5

Stream Biology

0)	
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	Other
Stream Biology Total	6.5
Notes	Not regulated

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

NW



Across stream photo direction 1

Ε

Across Stream Photo 2

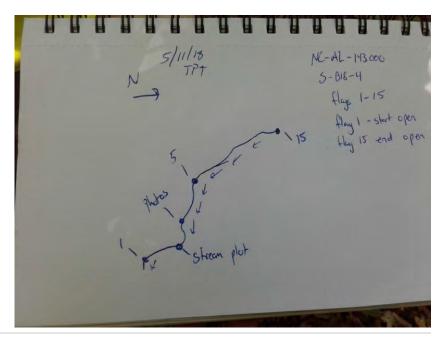


Across stream photo direction 2
Additional Stream Photos

W



Sketch of Stream



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Created	2018-05-10 18:12:02 UTC by James Bolduc
Updated	2018-09-13 15:11:34 UTC by Phil Jacques
Location	36.1001062, -79.3893178
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/10
Date2	180510

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	6
Resource ID	S-B18-6
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-6
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
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW
Channel condition	Suboptimal
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)	3
Average Water Width (ft)	1

Bank to Bank (ft)	2
Bankfull Width (ft)	3
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	Low
Left Bank Substrate	Silt-Mud
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	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud
-	
Right Bank Riparian Buffer Condition	
Optimal (1.5) [Right]	1.5
Optimal (1.5) [Right] High suboptimal (1.2) [Right]	1.5 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	
Optimal (1.5) [Right] High suboptimal (1.2) [Right]	0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	0 0 0 0 0 0 0
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	0 0 0 0 0 0 1.5 Moderate
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	0 0 0 0 0 0 0 1.5 Moderate Weak
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	0 0 0 0 0 0 1.5 Moderate Weak Absent
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	0 0 0 0 0 0 1.5 Moderate Weak Absent Weak
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	0 0 0 0 0 0 1.5 Moderate Weak Absent Weak Absent
Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	0 0 0 0 0 0 1.5 Moderate Weak Absent Weak Absent Absent

Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	6.5

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	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Notes	Natural ephemeral stream draining down from slope into wetland
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

NE



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

Ν

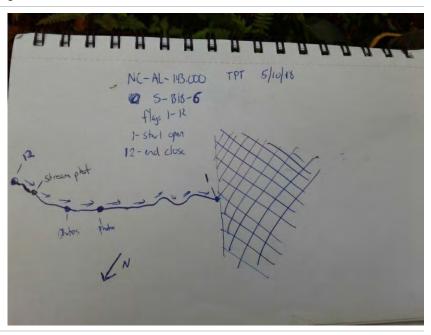
Across Stream Photo 2



Across stream photo direction 2

Sketch of Stream

S



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

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5-	В	اح کا	/

Created	2018-05-11 14:15:47 UTC by James Bolduc
Updated	2018-09-13 15:11:47 UTC by Phil Jacques
Location	36.1001062, -79.3893178
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/11
Date2	180511

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	7
Resource ID	S-B18-7
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-7
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	32.5
Calculated Stream Type	Perennial
Wildlife Observed	fish,frogs,tadpoles,salamanders
Observed Use	unknown

Stream Conditions

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

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)	7
Average Water Width (ft)	5

Bank to Bank (ft)	10
Bankfull Width (ft)	6
Probed Stream Depth	6 to 12 inches
Left Bank	
Left Bank Height (feet)	4
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Bedrock, Rubble, Cobble-Gravel
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)	3.5
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Bank Slope Right Erosion Potential	> 35% (> 20 deg) Very Steep Moderate
Right Bank Slope Right Erosion Potential Right Bank Substrate	
Right Erosion Potential Right Bank Substrate	Moderate
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition	Moderate Bedrock, Rubble, Cobble-Gravel
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right]	Moderate Bedrock, Rubble, Cobble-Gravel 1.5
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right]	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right]	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right]	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right]	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0 0 0 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right]	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right]	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0 0 0 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0 0 0 0 0 0
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0 0 0 0 1.5 1.5
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0 0 0 0 1.5 Strong
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0 0 0 0 0 1.5 Strong Moderate
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0 0 0 0 0 1.5 Strong Moderate Strong
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] High poor (0.5) [Right] Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0 0 0 0 0 1.5 Strong Moderate Strong Moderate
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0 0 0 0 0 1.5 Strong Moderate Strong Moderate Absent
Right Erosion Potential Right Bank Substrate Right Bank Riparian Buffer Condition Optimal (1.5) [Right] High suboptimal (1.2) [Right] Low suboptimal (1.1) [Right] High marginal (0.85) [Right] Low marginal (0.75) [Right] High poor (0.6) [Right] Low poor (0.5) [Right] Right bank total Stream Geomorphology Continuity of channel bed and bank Sinuosity of channel along thalweg In-channel structure Particle size of stream substrate Active or relict floodplain Depositional bars or benches	Moderate Bedrock, Rubble, Cobble-Gravel 1.5 0 0 0 0 0 0 0 1.5 Strong Moderate Strong Moderate Absent Weak

Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	15

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	Weak
Rooted upland plants in streambed	Weak
Macrobenthos	Strong
Aquatic mullusks	Moderate
Fish	Weak
Crayfish	Weak
Amphibians	Strong
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	11.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Undisturbed stream. Water clear
Stream Overview Report Photos	

Upstream Stream Photo



Upstream photo direction

NE



Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

NW

Across Stream Photo 2



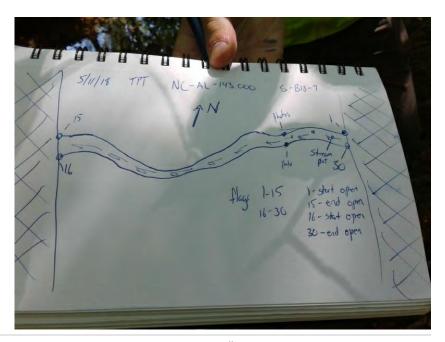
Across stream photo direction 2

SW





Sketch of Stream



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

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Created	2018-05-11 17:27:37 UTC by James Bolduc
Updated	2018-09-20 19:28:47 UTC by Susie Gifford (SBG)
Location	36.0921442, -79.3678512
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/11
Date2	180511

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	8
Resource ID	S-B18-8
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-8
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	21
Calculated Stream Type	Intermittent
Wildlife Observed	None observed
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W
Channel condition	Severe
Chamic Condition	Severe

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)	12
Bankfull Width (ft)	12
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	Sand, Silt-Mud
Left Bank Riparian Buffer Conditio	on .
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)	6
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	High
Right Bank Substrate	Sand, Silt-Mud
Right Bank Riparian Buffer Conditi	ion
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	Ctrong
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 Grade control	Absent Weak

Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	11

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?	Yes
Stream Hydrology Total	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
Notes	Unknown regulatory status. Deep cut
Stream Overview Report Photos	

Stream Overview Report Filo

Upstream Stream Photo



Upstream photo direction	N
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Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

S

Across Stream Photo 2



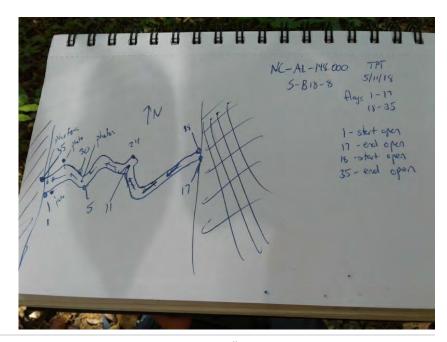
Across stream photo direction 2

Ν





Sketch of Stream



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

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Created	2018-05-11 18:29:48 UTC by James Bolduc
Updated	2018-09-20 19:29:26 UTC by Susie Gifford (SBG)
Location	36.0957238, -79.359052
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/11
Date2	180511

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	9
Resource ID	S-B18-9
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-9
Resource ID = Resource Type - Scientist Initials	- Resource Series Number

Stream Inventory

-	
Stream / Waterbody Type	Ephemeral
Calculated Stream Score	7.5
Calculated Stream Type	Ephemeral
Wildlife Observed	none
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S
Channel condition	Suboptimal
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)	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	Organic
Left Bank Substrate	Organic
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	Organic
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	Absent
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	4

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

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	3
Notes	Not regulated
Stream Overview Report Photos	

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

NE



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

Е

Across Stream Photo 2

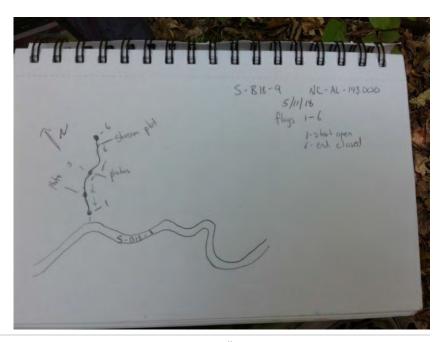


Across stream photo direction 2
Additional Stream Photos

W



Sketch of Stream



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

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Created	2018-05-11 16:02:41 EDT by James Bolduc
Updated	2018-05-23 08:13:48 EDT by Sam Edmonds
Location	36.0921867, -79.3608119
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/11
Date2	180511

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	10
Resource ID	S-B18-10
Do you need to override the resource id?	No
Pasourca ID - Pasourca Typa - Scientist Initials	- Pasaurca Sarias Number

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

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	18
Calculated Stream Type	Ephemeral
Wildlife Observed	None observed
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S
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)	2
Average Water Width (ft)	1
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	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	High
Left Bank Substrate	Cobble-Gravel, Silt-Mud
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	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	High
Right Bank Substrate	Cobble-Gravel, Silt-Mud
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	Absent
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	Weak
Grade control	Weak
Natural valley	Absent

Second or greater order channel	No
Stream Geomorphology Total	7.5

Presence of baseflow	Weak
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?	Yes
Stream Hydrology Total	4.5

Stream Biology

Absent
Absent
Other
6
State Protected, Corps Jurisdictional
Some water within channel

Upstream Stream Photo



|--|



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

SE

Across Stream Photo 2

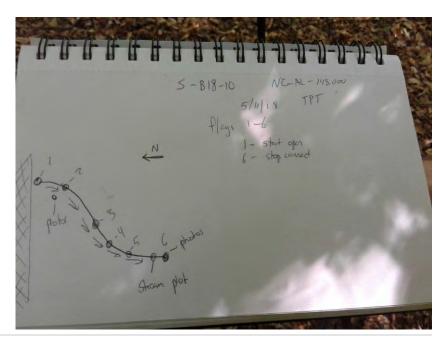


Across stream photo direction 2
Additional Stream Photos

NW



Sketch of Stream



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

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Created	2018-05-12 09:16:10 EDT by James Bolduc
Updated	2018-05-23 08:14:00 EDT by Sam Edmonds
Location	36.0960034, -79.3691353
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/12
Date2	180512

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	11
Resource ID	S-B18-11
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	21.5
Calculated Stream Type	Intermittent
Wildlife Observed	none
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S
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)	3
Average Water Width (ft)	1
Bank to Bank (ft)	8

Probed Stream Depth 0 to 6 inches	Bankfull Width (ft)	8
Left Bank Height (feet) 6 Left Bank Height (feet) 6 Left Bank Slope > 35% (> 20 deg) Very Steep Left Eracison Potential High Left Bank Slope 15% 1		
Left Bank Height (feet) 6 Left Bank Slope > 35% (> 20 deg) Very Steep Left Erosion Potential High Left Bank Substrate Cobble-Gravel, Sand, Sit-Mud Left Bank Riparian Buffer Condition I.S Openial (1.5) [Left] 1.5 High suboptimal (1.2) [Left] 0 Low suboptimal (1.2) [Left] 0 Low marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.6) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 1.5 Right Bank 1.5 Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Bank Substrate Cobble-Gravel, Sand, Silt-Mud Right Bank Riparian Buffer Condition Coble-Gravel, Sand, Silt-Mud Right Bank Riparian Buffer Condition 1.5 Right Bank Riparian Buffer Condition 1.5 Optimal (1.5) (Right) 0 Optimal (1.5) (Right) 0 Low suboptimal (1.1) (Right) 0 Low you por (0.6) (Right)		
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Optimal (1.5) [Left] 1.5 Low suboptimal (1.1) [Left] 0 Low suboptimal (1.2) [Left] 0 Low marginal (0.85) [Left] 0 Low marginal (0.75) [Left] 0 Liby poor (0.5) [Left] 0 Left bank total 1.5 Right Bank S Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Bank Substrate Cobbie-Gravel, Sand, Silt-Mud Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 1.5 High suboptimal (1.2) [Right] 0 Low suboptimal (1.2) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 0 Right bank total 1.5 Stream Geomorphology Continuity of channel along thalweg Moderate In-channel structure Moderate Particle size of stream substrate Moderate In-channel s	Left Bank Riparian Buffer Condition	
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High marginal (0.75) [Left] 0 Low marginal (0.75) [Left] 0 Low poor (0.5) [Left] 0 Low poor (0.5) [Left] 0 Left bank total 1.5 Right Bank S Right Bank Height (feet) 5 Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Bank Substrate Cobble-Gravel, Sand, Silt-Mud Right Bank Riparian Buffer Condition 1.5 Optimal (1.5) [Right] 0 Low suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Low marginal (0.85) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.6) [Right] 0 Low poor (0.6) [Right] 0 Continuity of channel bed and bank Strong Sinuosity of channel bed and bank Strong	High suboptimal (1.2) [Left]	0
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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 Cobble-Gravel, Sand, Silt-Mud Right Bank Riparian Buffer Condition Optimal (1.5) (Right) 1.5 High suboptimal (1.2) (Right) 0 Low suboptimal (1.1) (Right) 0 Low suboptimal (0.75) (Right) 0 Low marginal (0.85) (Right) 0 Low marginal (0.85) (Right) 0 Low more (0.6) (Right) 0 Low poor (0.6) (Right) 1 Low poor (0.6) (Right) 1 Stream Geomorphology Continuity of channel adong thalweg Moderate In-channel Structure Moderate Particle size of stream substrate Moderate Active or relict floodplain Absent Depositional bars or benches Weak Recent alluvial deposits Absent Headcuts Moderate Grade control Moderate	Low poor (0.5) [Left]	0
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Right Bank Height (feet) 5 Right Bank Slope 25 to 35% (14 to 20 deg) Steep Right Erosion Potential High Right Bank Riparian Buffer Condition Optimal (1.5) [Right] 1.5 High suboptimal (1.2) [Right] 0 Low suboptimal (1.1) [Right] 0 Low suboptimal (0.25) [Right] 0 Low marginal (0.25) [Right] 0 Low marginal (0.75) [Right] 0 Low marginal (0.75) [Right] 0 Low poor (0.5) [Right] 1 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 Particle size of stream substrate Moderate Particle size of stream substrate Moderate Active or relict floodplain Absent Depositional bars or benches Weak Recent alluvial deposits Absent Headcuts Arbor Moderate Grade control Moderate Grade control	Diabt David	
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Second or greater order channel	No
Stream Geomorphology Total	12

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?	Yes
Stream Hydrology Total	3.5

Stream Biology

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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
Notes	Non-jurisdictional

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction N



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

W