S-B18-20

| Created | 2018-05-15 12:46:28 EDT by James Bolduc |
|----------|---|
| Updated | 2018-05-23 08:31:50 EDT by Sam Edmonds |
| Location | 36.1466205, -79.4072891 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/15 |
| Date2 | 180515 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 20 |
| Resource ID | S-B18-20 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 27 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | Turtles |
| 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 |

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

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

Left Bank

| Left Bank Height (feet) | 2 |
|-------------------------|-------------------------------|
| Left Bank Slope | > 35% (> 20 deg) Very Steep |
| Left Erosion Potential | High |
| Left Bank Substrate | Rubble, Mud or muck, 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) | 2 |
|--------------------------|-------------------------------|
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Moderate |
| Right Bank Substrate | Rubble, Mud or muck, 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

| 1 07 | |
|------------------------------------|----------|
| 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 | Weak |
| Recent alluvial deposits | Absent |
| Headcuts | Absent |
| Grade control | Absent |
| Natural valley | Moderate |
| | |

| Second or greater order channel | No |
|---------------------------------|----|
| Stream Geomorphology Total | 13 |

Stream Hydrology

| Presence of baseflow | Weak |
|--|--------|
| Iron oxidizing bacteria | Absent |
| 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 | 6 |

Stream Biology

| Absent |
|-----------------------|
| Absent |
| Absent |
| Absent |
| Absent |
| Weak |
| Absent |
| Absent |
| OBL |
| 8 |
| Drainage from wetland |
| |
| |

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

SE



Across stream photo direction 1

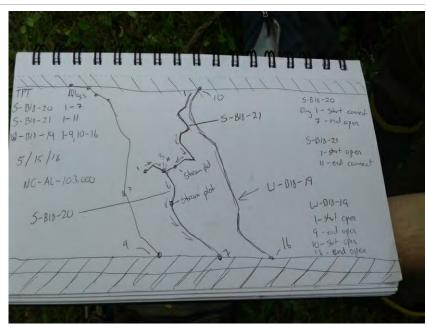
S



Across stream photo direction 2

Sketch of Stream

NE



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

S-B18-21

| Created | 2018-05-15 17:13:25 UTC by James Bolduc |
|----------|--|
| Updated | 2018-09-20 19:23:01 UTC by Susie Gifford (SBG) |
| Location | 36.1466514, -79.4072729 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/15 |
| Date2 | 180515 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 21 |
| Resource ID | S-B18-21 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - F | Resource Series Number |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 20 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | none |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Dry or Minimal | |
|---------------------|----------------|--|
| Direction of Flow | S | |
| Channel condition | Poor | |
| In stream habitat | Poor | |

Channel Alteration

| 1.5 |
|-----|
| 0 |
| 0 |
| 0 |
| 0 |
| 0 |
| 1.5 |
| |

| 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 | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | Moderate | |
| Left Bank Substrate | Sand, Mud or muck | |

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 | > 35% (> 20 deg) Very Steep | |
| Right Erosion Potential | Moderate | |
| Right Bank Substrate | Sand, Mud or muck | |

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

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Absent |
| Particle size of stream substrate | Weak |
| Active or relict floodplain | Moderate |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Absent |
| Headcuts | Absent |
| Grade control | Absent |
| Natural valley | Weak |
| | |

| Second or greater order channel | No |
|---------------------------------|-----|
| Stream Geomorphology Total | 8.5 |

Stream Hydrology

| Weak |
|--------|
| Absent |
| Weak |
| Weak |
| Absent |
| Yes |
| 5.5 |
| |

Stream Biology

| Absent | |
|---------------------------------------|--|
| Absent | |
| Other | |
| 6 | |
| Flows from wetland to stream S-B18-20 | |
| | |
| | Absent Absent Absent Absent Absent Absent Absent Other 6 |

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

S



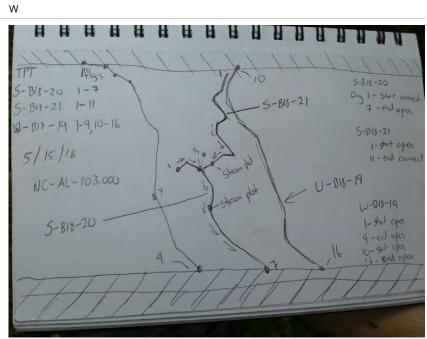
Across stream photo direction 1

SE



Across stream photo direction 2

Sketch of Stream



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

S-B18-22

| Created | 2018-05-16 10:45:31 EDT by James Bolduc | |
|----------|---|--|
| Updated | 2018-05-23 08:36:20 EDT by Sam Edmonds | |
| Location | 36.147305, -79.4210198 | |
| Status | Finalized & Approved | |
| Client | NextEra | |
| Project | MVP Southgate | |
| Date | 18/05/16 | |
| Date2 | 180516 | |
| | | |

Resource Crew Info

| Jim Bolduc, Tony Tredway |
|--------------------------|
| 5 |
| JGB |
| Tony Tredway |
| NA |
| 22 |
| S-B18-22 |
| No |
| esource Series Number |
| |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 24 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | Frogs |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | E |
| Channel condition | Poor |
| In stream habitat | Poor |

Channel Alteration

| 1.5 |
|-----|
| 0 |
| 0 |
| 0 |
| 0 |
| 0 |
| 1.5 |
| |

| OHWM Width (ft) | 3 | |
|--------------------------|---|--|
| Average Water Width (ft) | 2 | |
| Bank to Bank (ft) | 5 | |

| Bankfull Width (ft) | 5 |
|---------------------|---------------|
| Probed Stream Depth | 0 to 6 inches |

Left Bank

| Left Bank Height (feet) | 2 | |
|-------------------------|-----------------------------|--|
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | High | |
| 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) | 2 |
|--------------------------|-----------------------------|
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | Silt-Mud |

Right Bank Riparian Buffer Condition

| Optimal (1.5) [Right] | 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

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | Moderate |
| Particle size of stream substrate | Absent |
| Active or relict floodplain | Weak |
| Depositional bars or benches | Absent |
| Recent alluvial deposits | Absent |
| Headcuts | Strong |
| Grade control | Weak |
| Natural valley | Weak |
| | |

| Second or greater order channel | No |
|---------------------------------|----|
| Stream Geomorphology Total | 10 |

Stream Hydrology

| Presence of baseflow | Strong |
|--|--------|
| 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 | 7.5 |

Stream Biology

| Absent |
|----------------------------------|
| Absent |
| Weak |
| Absent |
| Other |
| 6.5 |
| Flat area with multiple channels |
| |
| |

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

Е



Across stream photo direction 1

NE

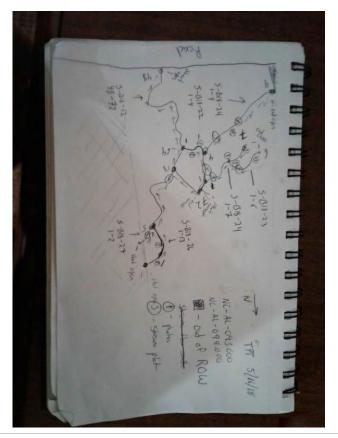


Across stream photo direction 2

Additional Stream Photos

S





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

S-B18-23

| Created | 2018-05-16 12:32:22 EDT by James Bolduc |
|----------|---|
| Updated | 2018-05-23 08:37:37 EDT by Sam Edmonds |
| Location | 36.1473987, -79.421041 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/16 |
| Date2 | 180516 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 23 |
| Resource ID | S-B18-23 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|-------------------|
| Calculated Stream Score | 15.5 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | None observed |
| Observed Use | forested drainage |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | E |
| Channel condition | Optimal |
| 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) | 4 |
|--------------------------|---|
| Average Water Width (ft) | 2 |
| Bank to Bank (ft) | 5 |

| Bankfull Width (ft) | 5 |
|---------------------|---------------|
| Probed Stream Depth | 0 to 6 inches |

Left Bank

| Left Bank Height (feet) | 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 | |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 1 | |
|--------------------------|---|--|
| Right Bank Slope | 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping | |
| Right Erosion Potential | Low | |
| Right Bank Substrate | Mud or muck | |

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

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Absent |
| In-channel structure | Absent |
| Particle size of stream substrate | Absent |
| Active or relict floodplain | Moderate |
| 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 | 4.5 |

Stream Hydrology

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

Stream Biology

| Absent |
|-----------------------|
| Absent |
| Other |
| 6 |
| Groundwater discharge |
| |
| |

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

Е



Across stream photo direction 1

S

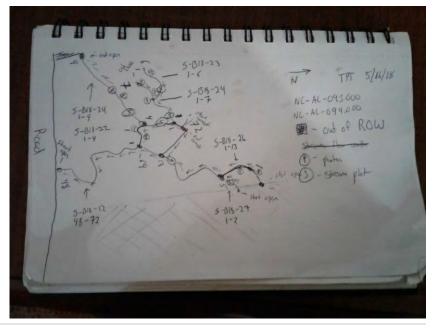


Across stream photo direction 2

Additional Stream Photos

Ν





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

S-B18-24

| Created | 2018-05-16 11:39:22 EDT by James Bolduc |
|----------|---|
| Updated | 2018-06-11 10:40:44 EDT by Sam Edmonds |
| Location | 36.1467052, -79.4207956 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/16 |
| Date2 | 180516 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 24 |
| Resource ID | S-B18-24 |
| 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 | 32.5 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Frogs |
| Observed Use | overland drainage |

Stream Conditions

| Water Flow Velocity | Slow (< 1 cfs) |
|---------------------|----------------|
| Direction of Flow | NE |
| 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) | 4 |
|--------------------------|---|
| 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 | Moderate | |
| 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 | |
| Right Bank Substrate | Sand | |

Right Bank Riparian Buffer Condition

| 0 1 | | |
|-------------------------------|-----|--|
| 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

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Strong |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Strong |
| Particle size of stream substrate | Moderate |
| Active or relict floodplain | Strong |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Weak |
| Headcuts | Absent |
| Grade control | Absent |
| Natural valley | Weak |
| | |

| Second or greater order channel | No | |
|---------------------------------|------|--|
| Stream Geomorphology Total | 15.5 | |
| Stream Hydrology | | |

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

Stream Biology

| Absent |
|---|
| |
| Absent |
| Moderate |
| Moderate |
| Absent |
| Absent |
| Moderate |
| Absent |
| Other |
| 11 |
| State Protected, Corps Jurisdictional |
| Stream flowing at the time of observation |
| |
| |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

NE



Across stream photo direction 1

Ν

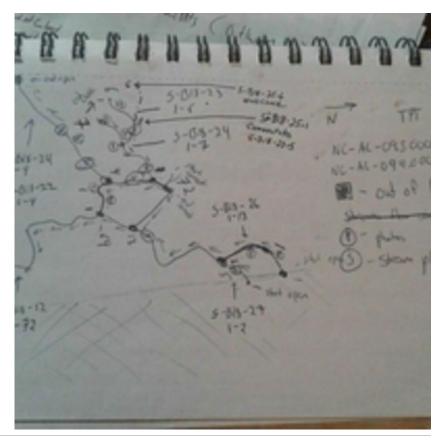


Across stream photo direction 2

SE



Sketch of Stream



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

S-JGB-26

| Created | 2018-05-16 18:03:46 UTC by James Bolduc |
|-------------------|--|
| Updated | 2018-09-20 19:23:23 UTC by Susie Gifford (SBG) |
| Location | 36.1477216, -79.4208646 |
| Status | Finalized & Approved |
| | |
| Client | NextEra |
| Client Project | NextEra MVP Southgate |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 26 |
| Resource ID | S-JGB-26 |
| 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 | 28.25 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | Frogs |
| Observed Use | Drainage through forest |

Stream Conditions

| Water Flow Velocity | Slow (< 1 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 |

| OHWM Width (ft) | 3 | |
|--------------------------|---|--|
| Average Water Width (ft) | 3 | |
| Bank to Bank (ft) | 4 | |

| Bankfull Width (ft) | 5 |
|---------------------|----------------|
| Probed Stream Depth | 6 to 12 inches |

Left Bank

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

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 | Moderate |
| Right Bank Substrate | Sand |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

| 1 05 | |
|------------------------------------|----------|
| 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 | Weak |
| Headcuts | Weak |
| Grade control | Weak |
| Natural valley | Moderate |

| Second or greater order channel | No |
|---------------------------------|------|
| Stream Geomorphology Total | 15.5 |

Stream Hydrology

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

Stream Biology

| Weak |
|----------------|
| Absent |
| Moderate |
| Absent |
| FACW |
| 6.75 |
| Stream flowing |
| |
| |

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

SE



Across stream photo direction 1

W

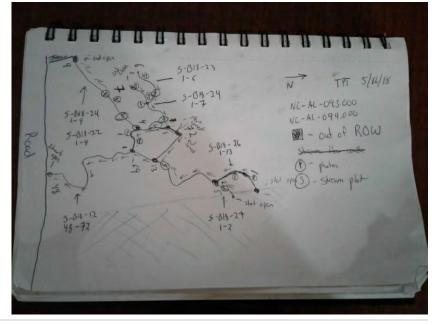


Across stream photo direction 2

Additional Stream Photos

Е





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

S-B18-27

| Created | 2018-05-16 14:25:22 EDT by James Bolduc |
|----------|---|
| Updated | 2018-05-23 09:12:36 EDT by Sam Edmonds |
| Location | 36.1477694, -79.4207182 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/16 |
| Date2 | 180516 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 27 |
| Resource ID | S-B18-27 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|-------------------------|
| Calculated Stream Score | 17 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | None observed |
| Observed Use | Drainage through forest |

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) | 3 | |

| Bankfull Width (ft) | 3 |
|---------------------|---------------|
| Probed Stream Depth | 0 to 6 inches |

Left Bank

| Left Bank Height (feet) | 0.2 |
|-------------------------|---|
| Left Bank Slope | 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping |
| 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 | |
| | | |

Right Bank

| Right Bank Height (feet) | 0.2 |
|--------------------------|---|
| Right Bank Slope | 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping |
| Right Erosion Potential | Low |
| Right Bank Substrate | Sand |

Right Bank Riparian Buffer Condition

| 1.5 |
|-----|
| 0 |
| |
| 0 |
| 0 |
| 0 |
| 0 |
| 0 |
| 1.5 |
| |

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Absent |
| In-channel structure | Absent |
| Particle size of stream substrate | Strong |
| Active or relict floodplain | Absent |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Weak |
| Headcuts | Absent |
| Grade control | Absent |
| Natural valley | Absent |
| | |

| Second or greater order channel | No |
|---------------------------------|----|
| Stream Geomorphology Total | 7 |
| | |

Stream Hydrology

| Presence of baseflow | Absent |
|--|--------|
| Iron oxidizing bacteria | Absent |
| Leaf litter | Weak |
| Sediment on plants or debris | 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 | |
| Stream Overview Report Photos | | |
| | | |

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

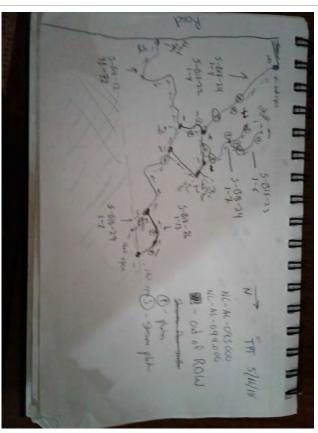
W



Across stream photo direction 2

Sketch of Stream

Е



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

S-B18-29

| Created | 2018-05-17 12:17:28 EDT by James Bolduc |
|----------|---|
| Updated | 2018-05-23 09:07:58 EDT by Sam Edmonds |
| Location | 36.1474191, -79.4202173 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/17 |
| Date2 | 180517 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 29 |
| Resource ID | S-B18-29 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|-------------------|
| Calculated Stream Score | 14 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | none |
| Observed Use | forested drainage |

Stream Conditions

| Water Flow Velocity | Dry or Minimal | |
|---------------------|----------------|--|
| Direction of Flow | SW | |
| Channel condition | Optimal | |
| 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) | 3 | |

| Bankfull Width (ft) | 3 |
|---------------------|---------------|
| Probed Stream Depth | 0 to 6 inches |

Left Bank

| Left Bank Height (feet) | 0.1 | |
|-------------------------|---|--|
| 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] | 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) | 0.1 |
|--------------------------|---|
| 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] | 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 | |
| | | |

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | Weak |
| Particle size of stream substrate | Absent |
| Active or relict floodplain | Absent |
| Depositional bars or benches | Absent |
| Recent alluvial deposits | Absent |
| Headcuts | Absent |
| Grade control | Weak |
| Natural valley | Absent |
| | |

| Second or greater order channel | No |
|---------------------------------|-----|
| Stream Geomorphology Total | 4.5 |

Stream Hydrology

| ,, | |
|--|----------|
| Presence of baseflow | Moderate |
| 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 | 5.5 |
| | |

Stream Biology

| Absent |
|---------------------|
| Moderate |
| Absent |
| Other |
| 4 |
| NJD Forest drainage |
| |
| |

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

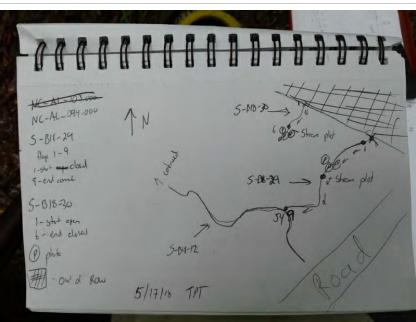
Ν





Sketch of Stream

S



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

S-B18-33

| Created | 2018-05-17 15:31:20 EDT by James Bolduc |
|-----------------|---|
| Updated | 2018-05-23 09:13:43 EDT by Sam Edmonds |
| Location | 36.1478545, -79.4235907 |
| Status | Finalized & Approved |
| Client | NextEra |
| | |
| Project | MVP Southgate |
| Project Date | MVP Southgate 18/05/17 |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 33 |
| Resource ID | S-B18-33 |
| 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 | 15.25 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | None observed |
| Observed Use | forested drainage |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | 5 |
| Channel condition | Optimal |
| 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) | 2 |
|---------------------|---------------|
| Probed Stream Depth | 0 to 6 inches |

Left Bank

| Left Bank Height (feet) | 0.1 | |
|-------------------------|---|--|
| 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] | 1.2 | |
| Low suboptimal (1.1) [Left] | 0 | |
| High marginal (0.85) [Left] | 0 | |
| Low marginal (0.75) [Left] | 0 | |
| High poor (0.6) [Left] | 0 | |
| Low poor (0.5) [Left] | 0 | |
| Left bank total | 1.2 | |
| | | |

Right Bank

| Right Bank Height (feet) | 0.1 | |
|--------------------------|---|--|
| 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] | 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 | Weak |
|------------------------------------|----------|
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Absent |
| Particle size of stream substrate | Absent |
| 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 | 4 |

Stream Hydrology

| eak |
|---------|
| |
| osent |
| oderate |
| osent |
| osent |
| 25 |
| 5 |
| |

Stream Biology

| Fibrous roots in streambed | Absent | |
|-----------------------------------|--------|--|
| Rooted upland plants in streambed | Absent | |
| Macrobenthos | Absent | |
| Aquatic mullusks | Absent | |
| Fish | Absent | |
| Crayfish | Absent | |
| Amphibians | Absent | |
| Algae | Absent | |
| Wetland plants in streambed | FACW | |
| Stream Biology Total | 6.75 | |
| Stream Overview Report Photos | | |
| | | |

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

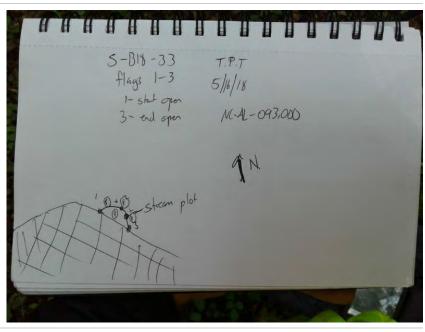
Е



Across stream photo direction 2

Sketch of Stream

W



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

S-B18-38

| Created | 2018-05-21 12:46:53 EDT by James Bolduc |
|----------|---|
| Updated | 2018-06-07 10:05:22 EDT by Sam Edmonds |
| Location | 36.4952994, -79.6783592 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/21 |
| Date2 | 180521 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 38 |
| Resource ID | S-B18-38 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|---------------|
| Calculated Stream Score | 16.25 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | None observed |
| Observed Use | Irrigation |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | E |
| Channel condition | Severe |
| In stream habitat | Poor |

Channel Alteration

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

Stream Measurements

| OHWM Width (ft) | 3 |
|--------------------------|---|
| Average Water Width (ft) | 2 |
| Bank to Bank (ft) | 6 |

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

Left Bank

| Left Bank Height (feet) | 3 | |
|-------------------------|-----------------------------|--|
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | High | |
| Left Bank Substrate | Silt-Mud | |

Left Bank Riparian Buffer Condition

| Optimal (1.5) [Left] | 0 | |
|------------------------------|------|--|
| High suboptimal (1.2) [Left] | 0 | |
| Low suboptimal (1.1) [Left] | 0 | |
| High marginal (0.85) [Left] | 0.85 | |
| 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 | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | 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 | |

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

| Second or greater order channel | No |
|---------------------------------|----|
| Stream Geomorphology Total | 6 |
| | |

Stream Hydrology

| Presence of baseflow | 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

| Weak Absent |
|---------------------------------------|
| Absent |
| |
| Absent |
| FACW |
| 5.75 |
| State Protected, Corps Jurisdictional |
| Old irrigation ditch |
| |
| |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1



Across stream photo direction 1

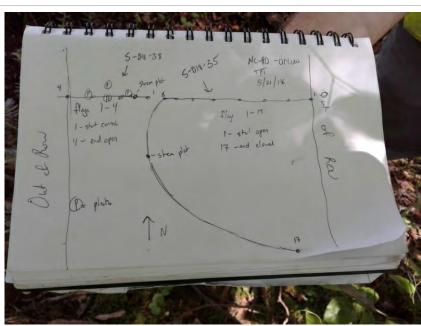
Ν



Across stream photo direction 2

Sketch of Stream

S



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

S-B18-41

| Created | 2018-05-22 11:39:12 EDT by James Bolduc |
|----------|---|
| Updated | 2018-06-14 14:08:48 EDT by Sam Edmonds |
| Location | 36.369576, -79.620653 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/22 |
| Date2 | 180522 |
| | |

Resource Crew Info

| Field Crew | Jeremy Hummel and Jake Brillo |
|---|-------------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 41 |
| Resource ID | S-B18-41 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-41 |
| Resource ID = Resource Type - Scientist Initials - Resource Series Number | |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|---------------|
| Calculated Stream Score | 34.25 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | None observed |
| Observed Use | Drainage |

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 |

Stream Measurements

| OHWM Width (ft) | 5 |
|--------------------------|---|
| Average Water Width (ft) | 2 |

| Bank to Bank (ft) | 8 |
|---------------------|---------------|
| Bankfull Width (ft) | 8 |
| 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 | High |
| Left Bank Substrate | Sand, Silt-Mud |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 3 |
|--------------------------|--------------------------------|
| Right Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | 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 | |
| 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 | Strong |
| In-channel structure | Moderate |
| Particle size of stream substrate | Weak |
| Active or relict floodplain | Moderate |
| Depositional bars or benches | Strong |
| Recent alluvial deposits | Moderate |
| Headcuts | Absent |
| Grade control | Weak |
| | |

| Natural valley | Moderate |
|--|---|
| Second or greater order channel | No |
| Stream Geomorphology Total | 17.5 |
| Stream Hydrology | |
| Presence of baseflow | Strong |
| Iron oxidizing bacteria | Absent |
| 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 | 9 |
| Stream Biology | |
| Fibrous roots in streambed | Absent |
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Moderate |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 7.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Stream flowing clear. Feature extended by Team C18 on 6/14, conditions same |
| Stream Overview Report Photos | |
| | |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

Е



Across stream photo direction 1

S



Across stream photo direction 2

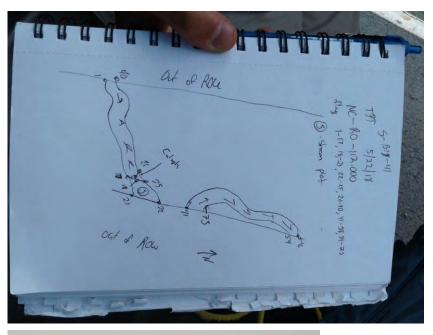
Additional Stream Photos

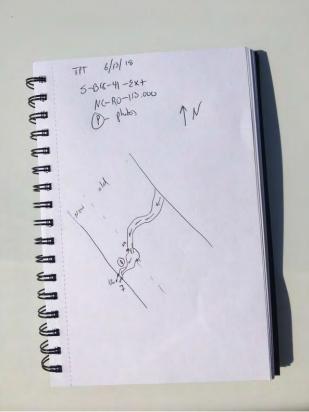
Ν











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

S-B18-42

| Created | 2018-05-22 11:10:15 EDT by James Bolduc |
|-------------------|---|
| Updated | 2018-06-08 09:52:47 EDT by Sam Edmonds |
| Location | 36.3696007, -79.6197758 |
| Status | Finalized & Approved |
| | |
| Client | NextEra |
| Client Project | NextEra MVP Southgate |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 42 |
| Resource ID | S-B18-42 |
| 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 | 23 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | none |
| Observed Use | stream flowing through cattle farm |

Stream Conditions

| Water Flow Velocity | Moderate (1 - 5 cfs) |
|---------------------|----------------------|
| Direction of Flow | NW |
| Channel condition | Poor |
| 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) | 4 | |
|--------------------------|---|--|
| 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) | 3 | |
|-------------------------|-----------------------------|--|
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | High | |
| Left Bank Substrate | Mud or muck | |

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 | > 35% (> 20 deg) Very Steep | |
| Right Erosion Potential | High | |
| Right Bank Substrate | Mud or muck | |

Right Bank Riparian Buffer Condition

| 0 1 | | |
|-------------------------------|------|--|
| 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 | |
| | | |

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

| Second or greater order channel | No |
|---------------------------------|-----|
| Stream Geomorphology Total | 9.5 |
| | |

Stream Hydrology

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

Stream Biology

| Absent Weak |
|---------------------------------------|
| |
| |
| Absent |
| Other |
| 5 |
| State Protected, Corps Jurisdictional |
| Trampled by cattle |
| |
| |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

NW



Across stream photo direction 1

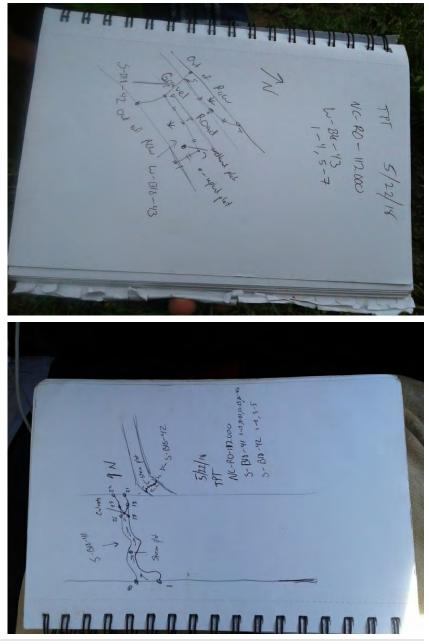
NE

Across Stream Photo 2



Across stream photo direction 2

S



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

S-B18-44

| Created | 2018-05-22 13:09:12 EDT by James Bolduc |
|-------------------|---|
| Updated | 2018-06-21 07:56:38 EDT by Sam Edmonds |
| Location | 36.3714115, -79.6206739 |
| Status | Finalized & Approved |
| | |
| Client | NextEra |
| Client Project | NextEra MVP Southgate |
| | |

Resource Crew Info

| Field Crew | Jeremy Hummel and Jake Brillo |
|--|-------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 44 |
| Resource ID | S-B18-44 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|---|
| Calculated Stream Score | 26.25 |
| Calculated Stream Type | Intermittent |
| Observed Use | stream draining through forested canopy |

Stream Conditions

| Water Flow Velocity | Slow (< 1 cfs) |
|---------------------|----------------|
| Direction of Flow | E |
| Channel condition | Severe |
| In stream habitat | Marginal |

Channel Alteration

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

Stream Measurements

| OHWM Width (ft) | 3 | |
|--------------------------|---|--|
| Average Water Width (ft) | 2 | |
| Bank to Bank (ft) | 8 | |
| Bankfull Width (ft) | 8 | |

| 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 | Bedrock, Cobble-Gravel, Sand | |

Left Bank Riparian Buffer Condition

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

Right Bank

| 0 | |
|--------------------------|------------------------------|
| Right Bank Height (feet) | 6 |
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | Bedrock, Cobble-Gravel, Sand |

Right Bank Riparian Buffer Condition

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

| 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 | Weak |
| Recent alluvial deposits | Absent |
| Headcuts | Moderate |
| Grade control | Moderate |
| Natural valley | Strong |
| Second or greater order channel | No |
| | |

| Stream Geomorphology Total |
|----------------------------|
|----------------------------|

Stream Hydrology

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

13.5

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|--|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Weak |
| 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 | Additional stream photos for extension P1 up, P2 dn, P3 across, P4 across and P5 fork at upper end |
| | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

Е



Across stream photo direction 1

S



Across stream photo direction 2

Additional Stream Photos

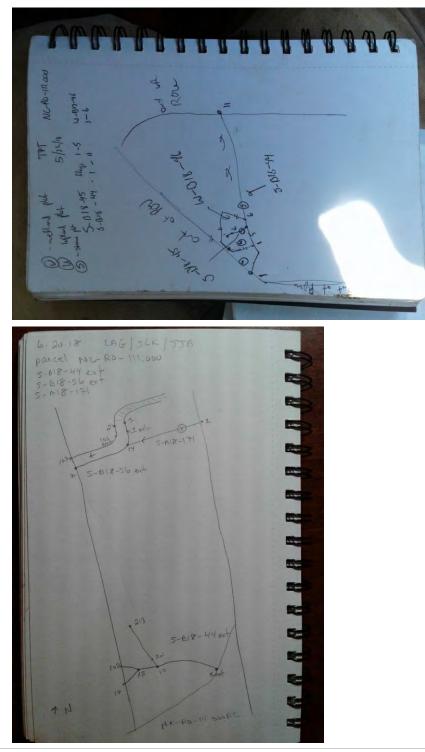
Ν







Sketch of Stream



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

S-B18-45

| Created2018-05-22 13:36:45 EDT by James BolducUpdated2018-06-08 09:51:33 EDT by Sam EdmondsLocation36.371453, -79.6206095StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/05/22Date2180522 | | |
|---|----------|---|
| Location36.371453, -79.6206095StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/05/22 | Created | 2018-05-22 13:36:45 EDT by James Bolduc |
| StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/05/22 | Updated | 2018-06-08 09:51:33 EDT by Sam Edmonds |
| Client NextEra Project MVP Southgate Date 18/05/22 | Location | 36.371453, -79.6206095 |
| ProjectMVP SouthgateDate18/05/22 | Status | Finalized & Approved |
| Date 18/05/22 | Client | NextEra |
| | Project | MVP Southgate |
| Date2 180522 | Date | 18/05/22 |
| | Date2 | 180522 |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 45 |
| Resource ID | S-B18-45 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|---|
| Calculated Stream Score | 14 |
| Calculated Stream Type | Ephemeral |
| Observed Use | ephemeral seep into intermittent stream |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | S |
| Channel condition | Optimal |
| 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) | 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] | 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

| | 0.5 | Right Bank Height (feet) |
|--|-----|--------------------------|
|--|-----|--------------------------|

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 | Absent |
| In-channel structure | Absent |
| Particle size of stream substrate | Weak |
| Active or relict floodplain | Weak |
| Depositional bars or benches | Absent |
| Recent alluvial deposits | Absent |
| Headcuts | Absent |
| Grade control | Weak |
| Natural valley | Weak |
| Second or greater order channel | No |
| Stream Geomorphology Total | 5 |

Stream Hydrology

| 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

| Fibrous roots in streambed | Strong |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Weak |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | OBL |
| Stream Biology Total | 4.5 |
| 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

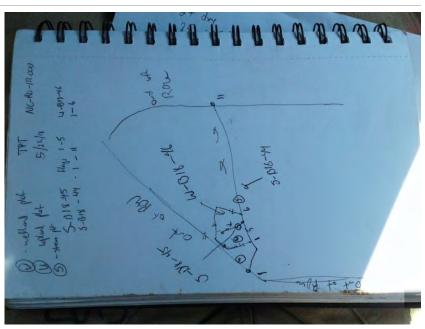
Е



Across stream photo direction 2

Sketch of Stream

Е



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

S-B18-47

| Created2018-05-23 14:05:03 UTC by James BolducUpdated2018-09-20 19:26:23 UTC by Susie Gifford (SBG)Location36.5083667, -79.6653658StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/05/23Date2180523 | | |
|--|----------|--|
| Location36.5083667, -79.6653658StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/05/23 | Created | 2018-05-23 14:05:03 UTC by James Bolduc |
| StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/05/23 | Updated | 2018-09-20 19:26:23 UTC by Susie Gifford (SBG) |
| Client NextEra Project MVP Southgate Date 18/05/23 | Location | 36.5083667, -79.6653658 |
| ProjectMVP SouthgateDate18/05/23 | Status | Finalized & Approved |
| Date 18/05/23 | Client | NextEra |
| | Project | MVP Southgate |
| Date2 180523 | Date | 18/05/23 |
| | Date2 | 180523 |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway, Heather Patti |
|--|---|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 47 |
| Resource ID | S-B18-47 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-47 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Ephemeral | |
|-------------------------|-----------|--|
| Calculated Stream Score | 14 | |
| Calculated Stream Type | Ephemeral | |
| Wildlife Observed | Turtles | |
| Observed Use | Drainage | |

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

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 |

Left Bank

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

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 1 |
|--------------------------|--|
| Right Bank Slope | 8 to 15% (5 to 9 deg) Moderately Sloping |
| Right Erosion Potential | 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 | Weak |
|------------------------------------|--------|
| Sinuosity of channel along thalweg | Absent |
| In-channel structure | Absent |
| Particle size of stream substrate | Absent |
| Active or relict floodplain | Weak |
| 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 | 3.5 |

Stream Hydrology

| , ., | |
|--|--------|
| 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? | Yes |
| Stream Hydrology Total | 3 |

Stream Biology

| Fibrous roots in streambed | Absent |
|-----------------------------------|---|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | OBL |
| Stream Biology Total | 7.5 |
| 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





Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

Е



Across stream photo direction 2

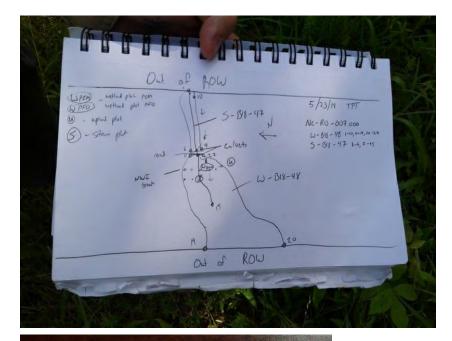
Additional Stream Photos

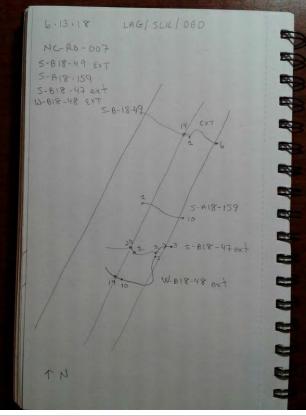
W





Sketch of Stream







S-B18-49

| Created2018-05-23 15:05:27 UTC by James BolducUpdated2018-09-20 19:26:36 UTC by Susie Gifford (SBG)Location36.5115508, -79.6622522StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/05/23Date2180523 | | |
|--|----------|--|
| Location36.5115508, -79.6622522StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/05/23 | Created | 2018-05-23 15:05:27 UTC by James Bolduc |
| StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/05/23 | Updated | 2018-09-20 19:26:36 UTC by Susie Gifford (SBG) |
| Client NextEra Project MVP Southgate Date 18/05/23 | Location | 36.5115508, -79.6622522 |
| ProjectMVP SouthgateDate18/05/23 | Status | Finalized & Approved |
| Date 18/05/23 | Client | NextEra |
| | Project | MVP Southgate |
| Date2 180523 | Date | 18/05/23 |
| | Date2 | 180523 |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway, Heather Patti |
|--|---|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 49 |
| Resource ID | S-B18-49 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-49 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|-----------|
| Calculated Stream Score | 32 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Fish |
| Observed Use | Drainage |

Stream Conditions

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

Channel Alteration

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

Stream Measurements

| OHWM Width (ft) | 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 | 15 to 25% (9 to 14 deg) Steeply Sloping | |
| Left Erosion Potential | Moderate | |
| Left Bank Substrate | Sand, Silt-Mud | |

Left Bank Riparian Buffer Condition

| 0 | |
|-----|---|
| 1.2 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 1.2 | |
| | 1.2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |

Right Bank

| Right Bank Height (feet) | 3 |
|--------------------------|-----------------------------|
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | Sand, Silt-Mud |

Right Bank Riparian Buffer Condition

| 0 1 | |
|-------------------------------|-----|
| 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

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

| Natural valley | Strong |
|---------------------------------|--------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 13 |

Stream Hydrology

| Presence of baseflow | Strong |
|--|----------|
| Iron oxidizing bacteria | Absent |
| 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 | Absent |
| Macrobenthos | Moderate |
| Aquatic mullusks | Absent |
| Fish | Moderate |
| Crayfish | Moderate |
| Amphibians | Moderate |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 11 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Nice small perennial stream. Additional stream photos for extension, P1 up, P2 dn, P3 across. Flags 1-6 |

Stream Overview Report Photos

Upstream Stream Photo



Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

SW



Across stream photo direction 2

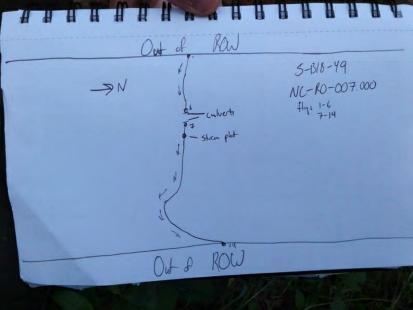
Additional Stream Photos

NE









Sketch of Stream

LAGI SLICI DOD 6.13.18 --5-818-49 EXT 5-618-159 5-618-159 5-618-47 ext W-618-48 EXT 5-6-18-49 AA A -RAARRABB A18-159 B18-47 ext W-B18-48 ext TN

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

S-B18-50

| Created | 2018-05-23 14:25:28 EDT by James Bolduc |
|-------------------|---|
| Updated | 2018-06-07 10:15:56 EDT by Sam Edmonds |
| Location | 36.5062322, -79.6682191 |
| Status | Finalized & Approved |
| | |
| Client | NextEra |
| Client Project | NextEra MVP Southgate |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway, Heather Patti |
|--|---|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 50 |
| Resource ID | S-B18-50 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-50 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |

Stream Inventory

| Stream / Waterbody Type | Ephemeral | |
|-------------------------|----------------|--|
| Calculated Stream Score | 12.5 | |
| Calculated Stream Type | Ephemeral | |
| Wildlife Observed | None observed | |
| Observed Use | Drainage | |
| Stream Conditions | | |
| Water Flow Velocity | Dry or Minimal | |
| | | |

| Direction of Flow | SW |
|-------------------|------|
| 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 |

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 | 25 to 35% (14 to 20 deg) Steep |
| Left Erosion Potential | High |
| Left Bank Substrate | Silt-Mud |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 1 |
|--------------------------|--------------------------------|
| Right Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | Silt-Mud |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

| Continuity of channel bed and bank | Weak |
|------------------------------------|--------|
| 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 | Strong |
|---------------------------------|--------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 3.5 |

Stream Hydrology

| Presence of baseflow | Absent |
|--|--------|
| Iron oxidizing bacteria | Absent |
| Leaf litter | Absent |
| Sediment on plants or debris | Absent |
| Organic debris lines or piles | Absent |
| Soil-based evidence of high water table? | 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 | OBL |
| Stream Biology Total | 7.5 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |

Upstream Stream Photo

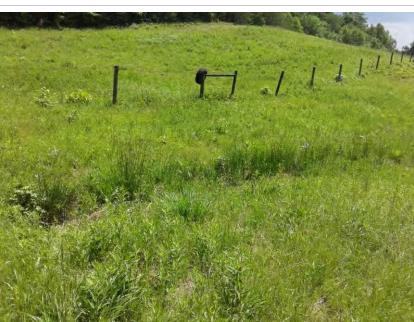




Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

S



Across stream photo direction 2

Sketch of Stream

NW



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

S-B18-51

| Created | 2018-05-24 09:11:25 EDT by James Bolduc |
|----------|---|
| Updated | 2018-06-07 10:16:56 EDT by Sam Edmonds |
| Location | 36.3840467, -79.6309219 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/24 |
| Date2 | 180524 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway, Heather Patti |
|--|---|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 51 |
| Resource ID | S-B18-51 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-51 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|--|----------------|
| Calculated Stream Score | 34 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Frogs |
| Observed Use | Drainage |
| Stream Conditions | |
| Water Flow Velocity | Slow (< 1 cfs) |
| Direction of Flow | 5 |
| 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) | 4 |
| Average Water Width (ft) | 2 |
| | |

| Bank to Bank (ft) | 10 |
|---------------------|---------------|
| Bankfull Width (ft) | 20 |
| Probed Stream Depth | 0 to 6 inches |

Left Bank

| Left Bank Height (feet) | 15 | |
|-------------------------|--|--|
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | High | |
| Left Bank Substrate | Bedrock, Cobble-Gravel, Sand, 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) | 20 |
|--------------------------|--|
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | Bedrock, 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 | |
| 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

| 1 00 | |
|------------------------------------|----------|
| 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 | Strong |
| Recent alluvial deposits | Moderate |
| Headcuts | Moderate |
| Grade control | Moderate |
| | |

| Natural valley | Moderate |
|---------------------------------|----------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 20 |

Stream Hydrology

| Presence of baseflow | Moderate |
|--|----------|
| 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 | 7 |

Stream Biology

| Absent |
|---------------------------------------|
| Absent |
| Moderate |
| Absent |
| Other |
| 7 |
| State Protected, Corps Jurisdictional |
| Stream in deep ravine |
| |
| |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1



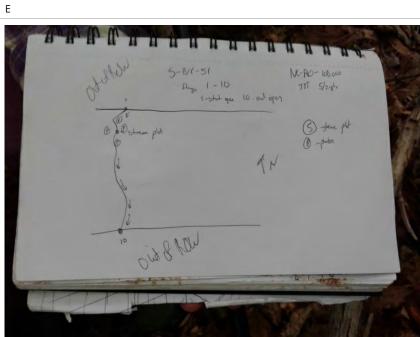
Across stream photo direction 1

W



Across stream photo direction 2

Sketch of Stream



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

S-B18-52

| Created | 2018-05-24 17:27:04 UTC by James Bolduc |
|----------|---|
| Updated | 2018-08-28 23:54:09 UTC by Simon King |
| Location | 36.383199, -79.628158 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/24 |
| Date2 | 180524 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway, Heather Patti |
|--|---|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 52 |
| Resource ID | S-B18-52 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-52 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| 3 | |
|-------------------------|-------------|
| Stream / Waterbody Type | Perennial |
| Calculated Stream Score | 37.5 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Salamanders |
| Observed Use | Drainage |
| | |

Stream Conditions

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

Channel Alteration

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

Stream Measurements

| OHWM Width (ft) | 4 |
|--------------------------|---|
| Average Water Width (ft) | 3 |

| Bank to Bank (ft) | 5 |
|---------------------|---------------|
| Bankfull Width (ft) | 5 |
| Probed Stream Depth | 0 to 6 inches |

| Left Bank Height (feet) | 3 | |
|-------------------------|--------------------------------|--|
| Left Bank Slope | 25 to 35% (14 to 20 deg) Steep | |
| Left Erosion Potential | Moderate | |
| Left Bank Substrate | Cobble-Gravel, Sand | |

Left Bank Riparian Buffer Condition

| Optimal (1.5) [Left] | 1.5 | |
|------------------------------|-----|--|
| 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 | High |
| Right Bank Substrate | Cobble-Gravel, Sand |

Right Bank Riparian Buffer Condition

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

| 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 | Absent |
| Headcuts | Absent |
| Grade control | Moderate |
| | |

| Natural valley | Moderate |
|---------------------------------|----------|
| Second or greater order channel | Yes |
| Stream Geomorphology Total | 18 |

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

Stream Biology

| 0 | | |
|-----------------------------------|--|--|
| Fibrous roots in streambed | Weak | |
| Rooted upland plants in streambed | Weak | |
| Macrobenthos | Strong | |
| Aquatic mullusks | Absent | |
| Fish | Strong | |
| Crayfish | Moderate | |
| Amphibians | Strong | |
| Algae | Absent | |
| Wetland plants in streambed | Other | |
| Stream Biology Total | 11 | |
| Regulatory Status | State Protected, Corps Jurisdictional | |
| Notes | Drainage through forest. One flag for extension. | |
| | | |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

SE



Across stream photo direction 1

Е



Across stream photo direction 2

Additional Stream Photos

W





Upstream

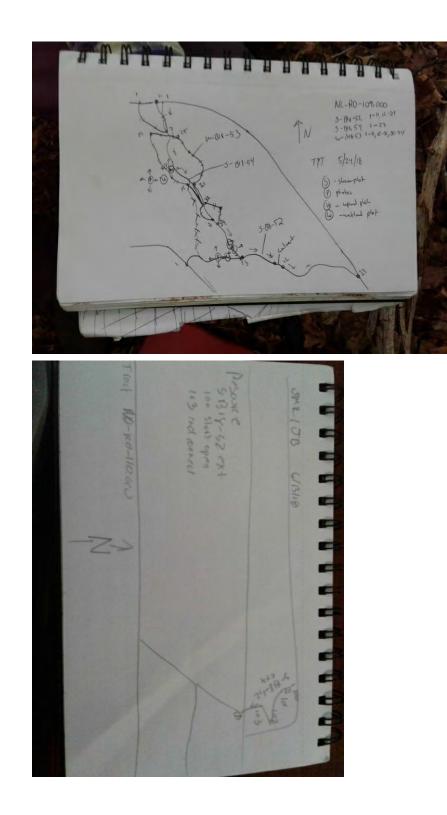


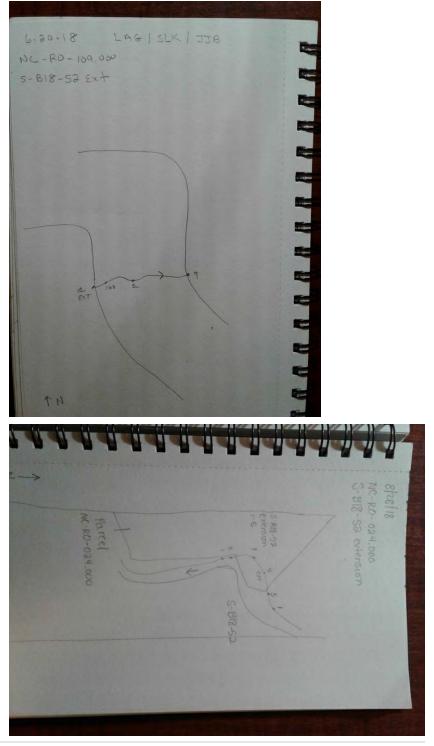
Downstream



Across

Sketch of Stream





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

S-B18-54

| 2018-05-24 13:43:03 EDT by James Bolduc 2018-06-07 10:20:09 EDT by Sam Edmonds 36.3826955, -79.6280999 |
|--|
| |
| 26 2826055 70 6280000 |
| 30.3620933, -73.0280999 |
| Finalized & Approved |
| NextEra |
| |
| MVP Southgate |
| MVP Southgate 18/05/24 |
| |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway, Heather Patti |
|--|---|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 54 |
| Resource ID | S-B18-54 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-54 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| , | |
|--|----------------|
| Stream / Waterbody Type | Intermittent |
| Calculated Stream Score | 31 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Salamanders |
| Observed Use | Drainage |
| Stream Conditions | |
| Water Flow Velocity | Slow (< 1 cfs) |
| Direction of Flow | 5 |
| 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 | 0.7 |
| Severe (0.5) Channel Alteration | 0 |
| Channel Alteration Total | 0.7 |
| Stream Measurements | |
| OHWM Width (ft) | 3 |
| Average Water Width (ft) | 2 |
| | |

| Bank to Bank (ft) | 2 |
|---------------------|---------------|
| Bankfull Width (ft) | 2 |
| 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 | Cobble-Gravel, Vegetated |

Left Bank Riparian Buffer Condition

| Optimal (1.5) [Left] | 0.45 | |
|------------------------------|-------|--|
| High suboptimal (1.2) [Left] | 0 | |
| Low suboptimal (1.1) [Left] | 0 | |
| High marginal (0.85) [Left] | 0 | |
| Low marginal (0.75) [Left] | 0.525 | |
| High poor (0.6) [Left] | 0 | |
| Low poor (0.5) [Left] | 0 | |
| Left bank total | 0.975 | |
| | | |

Right Bank

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

Right Bank Riparian Buffer Condition

| Optimal (1.5) [Right] | 0.45 | |
|-------------------------------|-------|--|
| High suboptimal (1.2) [Right] | 0 | |
| Low suboptimal (1.1) [Right] | 0 | |
| High marginal (0.85) [Right] | 0 | |
| Low marginal (0.75) [Right] | 0.525 | |
| High poor (0.6) [Right] | 0 | |
| Low poor (0.5) [Right] | 0 | |
| Right bank total | 0.975 | |
| | | |

| Moderate |
|----------|
| Strong |
| Moderate |
| Moderate |
| Absent |
| Weak |
| Weak |
| Strong |
| Moderate |
| |

| Natural valley | Weak |
|---------------------------------|------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 15.5 |

| Moderate |
|----------|
| Moderate |
| Weak |
| Moderate |
| Weak |
| Yes |
| 9.5 |
| |

Stream Biology

| 2.1.2.1.1.2.2.0.0) | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Weak |
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Weak |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Moderate |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 6 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |

Stream Overview Report Photos

Upstream Stream Photo



Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

NE



Across stream photo direction 1

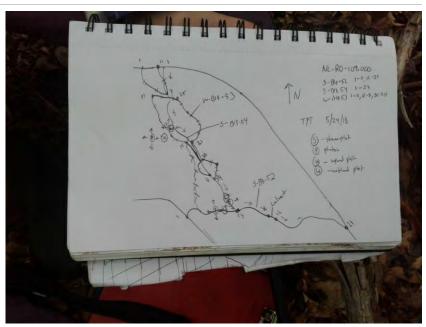
SE



Across stream photo direction 2

Sketch of Stream

NW



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

S-B18-56

| Created2018-05-25 09:50:44 EDT by James BolducUpdated2018-06-21 07:55:49 EDT by Sam EdmondsLocation36.3773942, -79.6252066StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/05/25 | | |
|---|-------|---|
| Location36.3773942, -79.6252066StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/05/25 | ated | 2018-05-25 09:50:44 EDT by James Bolduc |
| StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/05/25 | lated | 2018-06-21 07:55:49 EDT by Sam Edmonds |
| Client NextEra Project MVP Southgate Date 18/05/25 | ation | 36.3773942, -79.6252066 |
| ProjectMVP SouthgateDate18/05/25 | us | Finalized & Approved |
| Date 18/05/25 | nt | NextEra |
| | ject | MVP Southgate |
| 400525 | e | 18/05/25 |
| Date2 180525 | e2 | 180525 |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 56 |
| Resource ID | S-B18-56 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-56 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|-------------------|
| Calculated Stream Score | 46 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Fish |
| Observed Use | forested drainage |
| | |

Stream Conditions

| Water Flow Velocity | Moderate (1 - 5 cfs) |
|---------------------|----------------------|
| Direction of Flow | Ν |
| Channel condition | Marginal |
| 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) | 15 |
|--------------------------|----|
| Average Water Width (ft) | 8 |

| Bank to Bank (ft) | 25 |
|---------------------|---------------|
| Bankfull Width (ft) | 25 |
| Probed Stream Depth | 0 to 6 inches |

| Left Bank Height (feet) | 10 | |
|-------------------------|--------------------------------|--|
| Left Bank Slope | 25 to 35% (14 to 20 deg) Steep | |
| Left Erosion Potential | High | |
| Left Bank Substrate | Sand, Vegetated | |

Left Bank Riparian Buffer Condition

| Optimal (1.5) [Left] | 0.75 | |
|------------------------------|------|--|
| High suboptimal (1.2) [Left] | 0 | |
| Low suboptimal (1.1) [Left] | 0.55 | |
| 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 | 1.3 | |
| | | |

Right Bank

| Right Bank Height (feet) | 10 |
|--------------------------|--------------------------------|
| Right Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | Sand, Vegetated |

Right Bank Riparian Buffer Condition

| Optimal (1.5) [Right] | 0.75 | |
|-------------------------------|------|--|
| High suboptimal (1.2) [Right] | 0 | |
| Low suboptimal (1.1) [Right] | 0.55 | |
| 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 | 1.3 | |

| Strong |
|----------|
| Strong |
| Moderate |
| Strong |
| Strong |
| Strong |
| Moderate |
| Absent |
| Weak |
| |

| Natural valley | Moderate |
|---------------------------------|----------|
| Second or greater order channel | Yes |
| Stream Geomorphology Total | 23.5 |

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

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|--|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Strong |
| Aquatic mullusks | Absent |
| Fish | Strong |
| Crayfish | Strong |
| Amphibians | Moderate |
| Algae | Absent |
| Wetland plants in streambed | OBL |
| Stream Biology Total | 13.5 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Additional stream photos for extension P1 up, P2 dn, P3 across |
| | |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

Ν



Across stream photo direction 1

NE



Across stream photo direction 2

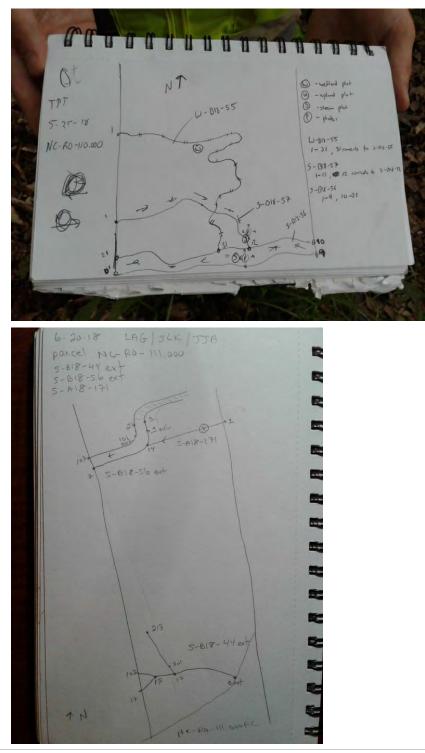
Additional Stream Photos

SW





Sketch of Stream



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

S-B18-57

| Created | 2018-05-25 13:25:04 UTC by James Bolduc |
|-------------------|--|
| cicated | 2010 03 23 13.23.04 01C by junics bolduc |
| Updated | 2018-09-20 19:26:56 UTC by Susie Gifford (SBG) |
| Location | 36.377501, -79.6254709 |
| Status | Finalized & Approved |
| | |
| Client | NextEra |
| Client Project | NextEra MVP Southgate |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 57 |
| Resource ID | S-B18-57 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-57 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 30.5 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Frogs |

Stream Conditions

| Water Flow Velocity | Slow (< 1 cfs) | |
|---------------------|----------------|--|
| Direction of Flow | E | |
| Channel condition | Optimal | |
| 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) | 1 |
| Bank to Bank (ft) | 3 |

| Bankfull Width (ft) | 3 |
|---------------------|---------------|
| Probed Stream Depth | 0 to 6 inches |

| Left Bank Height (feet) | 0.1 | |
|-------------------------|---|--|
| 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, Vegetated | |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 0.1 |
|--------------------------|---|
| Right Bank Slope | 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping |
| Right Erosion Potential | Low |
| Right Bank Substrate | Mud or muck, 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 | Weak |
|------------------------------------|--------|
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | Absent |
| Particle size of stream substrate | Weak |
| Active or relict floodplain | Strong |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Weak |
| Headcuts | Weak |
| Grade control | Absent |
| Natural valley | Absent |
| | |

| Second or greater order channel | No |
|---------------------------------|----|
| Stream Geomorphology Total | 9 |

| Moderate |
|----------|
| Moderate |
| Absent |
| Moderate |
| Weak |
| Yes |
| 10 |
| |

Stream Biology

| tional |
|--------|
| |
| |

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

NE



Across stream photo direction 1

Е

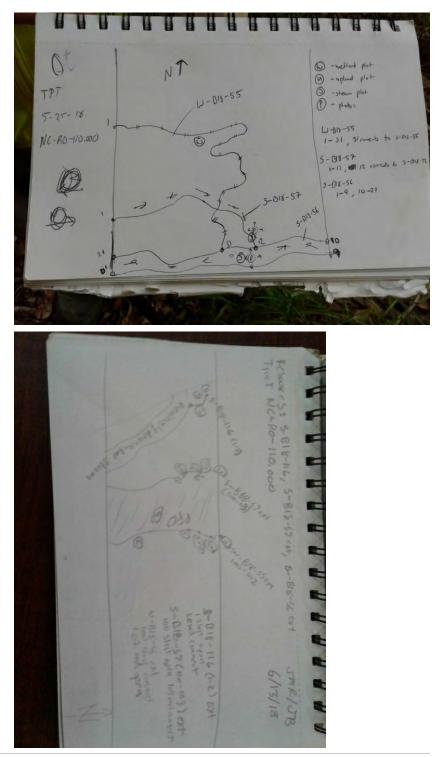


Across stream photo direction 2

W



Sketch of Stream



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

S-B18-58

| Created | 2018-05-26 15:46:29 UTC by James Bolduc |
|----------|--|
| Updated | 2018-09-20 19:27:15 UTC by Susie Gifford (SBG) |
| Location | 36.0636979, -79.3617107 |
| Status | Finalized & Approved |
| Client | NextEra |
| | Nexteria |
| Project | MVP Southgate |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Tony Tredway |
|--|--------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 58 |
| Resource ID | S-B18-58 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-58 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|--------------------------|
| Calculated Stream Score | 48 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Turtles |
| Observed Use | did not observe anything |

Stream Conditions

| Water Flow Velocity | Moderate (1 - 5 cfs) |
|---------------------|----------------------|
| Direction of Flow | SW |
| Channel condition | Marginal |
| 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) | 100 |
|--------------------------|-----|
| Average Water Width (ft) | 90 |

| Bank to Bank (ft) | 130 |
|---------------------|-------------|
| Bankfull Width (ft) | 130 |
| Probed Stream Depth | > 36 inches |

| Left Bank Height (feet) | 12 |
|-------------------------|-----------------------------|
| 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] | 0 | |
|------------------------------|-----|--|
| | v | |
| 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) | 12 | |
|--------------------------|-----------------------------|--|
| Right Bank Slope | > 35% (> 20 deg) Very Steep | |
| Right Erosion Potential | High | |
| Right Bank Substrate | Sand | |

Right Bank Riparian Buffer Condition

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

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

| Natural valley | Weak |
|---------------------------------|------|
| Second or greater order channel | Yes |
| Stream Geomorphology Total | 21.5 |

| 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

| Absent |
|---------------------------------------|
| Absent |
| Strong |
| Absent |
| Other |
| 16.5 |
| State Protected, Corps Jurisdictional |
| Haw River |
| |
| |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

S

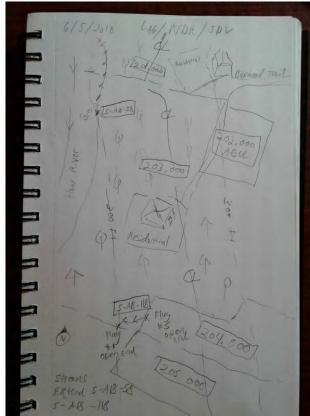


Across stream photo direction 1

W



Sketch of Stream





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

S-B18-59

| Created | 2018-05-30 09:41:30 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-13 12:46:16 EDT by Sam Edmonds |
| Location | 36.2088178, -79.5159789 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/30 |
| Date2 | 180530 |
| | |

Resource Crew Info

| Field Crew | Will Buetow |
|--|--------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 59 |
| Resource ID | S-B18-59 |
| 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 | 34.25 |
| Calculated Stream Type | Perennial |
| Observed Use | Drainage |

Stream Conditions

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

Channel Alteration

Probed Stream Depth

| 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) | 3 | | |
| Bankfull Width (ft) | 3 | | |
| | | | |

0 to 6 inches

| Left Bank Height (feet) | 1 | |
|-------------------------|---|--|
| Left Bank Slope | 15 to 25% (9 to 14 deg) Steeply Sloping | |
| Left Erosion Potential | Moderate | |
| Left Bank Substrate | clay | |

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 | clay |

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 | |
| | | |

| 1 05 | |
|------------------------------------|----------|
| 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 | Weak |
| Headcuts | Absent |
| Grade control | Weak |
| Natural valley | Moderate |
| Second or greater order channel | No |
| Stream Geomorphology Total | 15.5 |
| | |

| , , , | |
|--|----------|
| Presence of baseflow | Moderate |
| 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 | 9 |

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Moderate |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Weak |
| Amphibians | Strong |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 9.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

SE



Across Stream Photo 1

NW



Across stream photo direction 1

Ν



Across stream photo direction 2

Additional Stream Photos

S



stream braided 100 series flagging



Sketch of Stream

W B 18 60 B 18 59 (12) Flay 1 Stuff 101 11 12 162 endipe H H undergun plst_ 103 start ales Ð 104 17 13 X plat 0 doje 5-C14-65 1-13 5-B18-59-2×1 1-21 W-C14-69 -1-11 6/12/18 TPT TN B18-51-EXT

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

S-B18-62

| Created | 2018-05-30 16:26:19 UTC by Will Buetow |
|----------|--|
| Updated | 2018-09-20 19:27:32 UTC by Susie Gifford (SBG) |
| Location | 36.2073212, -79.5119161 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/30 |
| Date2 | 180530 |

Resource Crew Info

| Field Crew | Will Buetow |
|---|----------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 62 |
| Resource ID | S-B18-62 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - Re | source Series Number |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|-----------|
| Calculated Stream Score | 8 |
| Calculated Stream Type | Ephemeral |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | Ν |

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) | 6 |
| 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 | Low |
| Left Bank Substrate | clay |

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 | clay |

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 | Moderate |
|------------------------------------|----------|
| Sinuosity of channel along thalweg | Absent |
| 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 | Moderate |
| Grade control | Absent |
| Natural valley | Absent |
| Second or greater order channel | No |
| Stream Geomorphology Total | 4 |
| | |

Stream Hydrology

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

Stream Biology

| Fibrous roots in streambed | Moderate |
|--|---|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 3 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Two channels of one feature, ephemeral scour in uplamd |
| Notes Stream Overview Report Photos | I wo channels of one feature, ephemeral scour in uplamd |

Upstream Stream Photo





Across Stream Photo 1

Е



Across stream photo direction 1

S



Additional Stream Photos

10 5618 62 sturt core Stu (du 4 clused Corrido Transmission flags 105 The to flag 4 101-105

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

S-B18-63

| Created | 2018-05-30 14:24:36 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-12 11:38:21 EDT by Sam Edmonds |
| Location | 36.2014314, -79.5053529 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/30 |
| Date2 | 180530 |

Resource Crew Info

| Field Crew | Will Buetow |
|--|------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 63 |
| Resource ID | S-B18-63 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - F | Resource Series Number |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 17.25 |
| Calculated Stream Type | Ephemeral |

Stream Conditions

| 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) | 1 | |
|---|------|--|
| Left Bank Slope 0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping | | |
| Left Erosion Potential | Low | |
| Left Bank Substrate | clay | |

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 | clay | |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

| Continuity of channel bed and bank | Weak |
|------------------------------------|--------|
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | Absent |
| Particle size of stream substrate | Weak |
| Active or relict floodplain | Absent |
| Depositional bars or benches | Absent |
| Recent alluvial deposits | Weak |
| Headcuts | Absent |
| Grade control | Absent |
| Natural valley | Absent |
| Second or greater order channel | No |
| Stream Geomorphology Total | 4 |

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 | Absent | |
|-----------------------------------|--|--|
| Rooted upland plants in streambed | Absent | |
| Macrobenthos | Weak | |
| Aquatic mullusks | Absent | |
| Fish | Absent | |
| Crayfish | Absent | |
| Amphibians | Absent | |
| Algae | Absent | |
| Wetland plants in streambed | FACW | |
| Stream Biology Total | 7.75 | |
| Regulatory Status | State Protected, Corps Jurisdictional | |
| Notes | Weak broad intermittent channel. No vegetation in the channel. Feature drains outside of survey area | |
| | | |

Stream Overview Report Photos

Upstream Stream Photo





Across Stream Photo 1



Across stream photo direction 1

Е



Across stream photo direction 2

Sketch of Stream

W



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

S-B18-65

| Created | 2018-05-30 20:05:53 UTC by Will Buetow |
|----------|--|
| Updated | 2018-09-20 19:27:47 UTC by Susie Gifford (SBG) |
| Location | 36.2005342, -79.5013905 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/30 |
| Date2 | 180530 |

Resource Crew Info

| Field Crew | Will Buetow |
|--|--------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 65 |
| Resource ID | S-B18-65 |
| 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 | 17.75 |
| Calculated Stream Type | Ephemeral |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Slow (< 1 cfs) |
|---------------------|----------------|
| Direction of Flow | 5 |

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 | | |
| | 2 | |

OHWM Width (ft) 2 Average Water Width (ft) 2 Bank to Bank (ft) 5 Bankfull Width (ft) 2 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 | High |
| Left Bank Substrate | clay |

Left Bank Riparian Buffer Condition

| 0 | |
|---|---------------------------------|
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| | 0 0 0 0 0 0 0 |

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 | clay |

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 | Moderate |
|------------------------------------|----------|
| 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 | Weak |
| Headcuts | Moderate |
| Grade control | Weak |
| Natural valley | Absent |
| Second or greater order channel | No |
| Stream Geomorphology Total | 7.5 |
| | |

Stream Hydrology

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

Stream Biology

| Sti cam Biology | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Weak |
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Moderate |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Weak |
| Amphibians | Strong |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 9.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Goes through 36in culvert |
| Stream Overview Report Photos | |
| | |

Upstream Stream Photo





Across Stream Photo 1

SE



Across stream photo direction 1

S

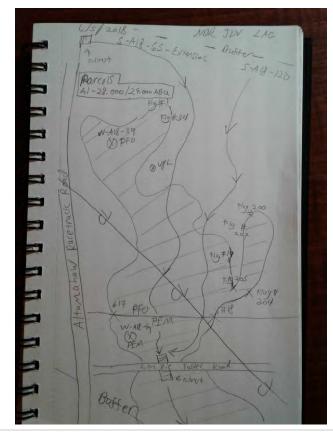


Across stream photo direction 2

Sketch of Stream

Ν





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

S-B18-66

| Created | 2018-05-31 09:46:57 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-11 10:44:47 EDT by Sam Edmonds |
| Location | 36.3340271, -79.6022555 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/31 |
| Date2 | 180531 |

Resource Crew Info

| Field Crew | Will Buetow |
|--|------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 66 |
| Resource ID | S-B18-66 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - F | Resource Series Number |

Stream Inventory

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

ام:

| 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) | 2 |
| | |

Left Bank

| Left Bank Height (feet) | 6 | |
|-------------------------|---|--|
| Left Bank Slope | 15 to 25% (9 to 14 deg) Steeply Sloping | |
| Left Erosion Potential | High | |
| Left Bank Substrate | clay | |

Left Bank Riparian Buffer Condition

| 0 | |
|---|---------------------------------|
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| | 0 0 0 0 0 0 0 |

Right Bank

| Right Bank Height (feet) | 6 |
|--------------------------|---|
| Right Bank Slope | 15 to 25% (9 to 14 deg) Steeply Sloping |
| Right Erosion Potential | High |
| Right Bank Substrate | clay |

Right Bank Riparian Buffer Condition

| 0 |
|---|
| 0 |
| 0 |
| 0 |
| 0 |
| 0 |
| 0 |
| 0 |
| |

Stream Geomorphology

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

Stream Hydrology

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

Stream Biology

| 0 | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Moderate |
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Weak |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 4.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

SE



Across Stream Photo 1

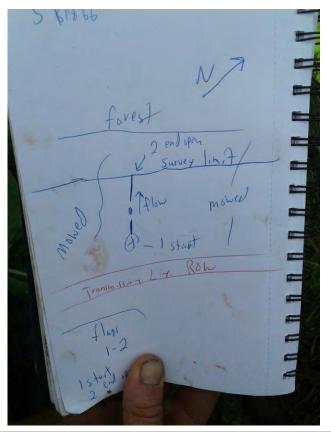
NW



Across stream photo direction 1

Ν

Sketch of Stream



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

S-B18-68

| Created | 2018-06-01 12:18:47 UTC by Will Buetow |
|----------|--|
| Updated | 2018-08-23 18:34:06 UTC by Will Buetow |
| Location | 36.3202096, -79.5939072 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/01 |
| Date2 | 180601 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Simon King, Will Buetow |
|--|-------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 68 |
| Resource ID | S-B18-68 |
| 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 | 36.5 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | fish, tadpole crawfish |
| Observed Use | water for cattle |

Stream Conditions

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

Channel Alteration

| charmer / accration | | | |
|--|---|--|--|
| 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) | 6 |
| Bankfull Width (ft) | 6 |
| 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 | clay |

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 | clay | |

Right Bank Riparian Buffer Condition

| 0 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

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

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

| Sti cam Biology | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Absent |
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Moderate |
| Aquatic mullusks | Absent |
| Fish | Moderate |
| Crayfish | Weak |
| Amphibians | Moderate |
| Algae | Absent |
| Wetland plants in streambed | OBL |
| Stream Biology Total | 12 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | NHD mapped stream |
| Stream Overview Report Photos | |
| | |

Upstream Stream Photo





Across Stream Photo 1

NE



Across stream photo direction 1

NW



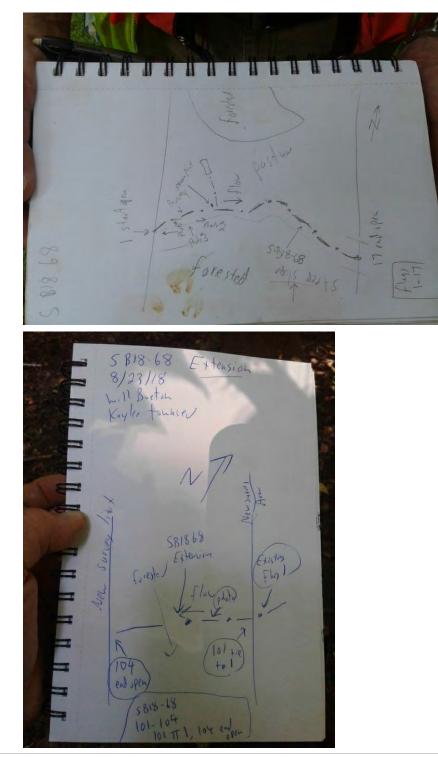
Across stream photo direction 2

Additional Stream Photos

NE



Sketch of Stream



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

S-B18-69

| Created | 2018-06-01 13:02:55 UTC by Will Buetow |
|----------|--|
| Updated | 2018-09-20 19:28:00 UTC by Susie Gifford (SBG) |
| Location | 36.3203805, -79.5941427 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/01 |
| Date2 | 180601 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Simon King, Will Buetow |
|--|-------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 69 |
| Resource ID | S-B18-69 |
| 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 | 35.75 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | invertebrate, tadpoles crawfish |
| Observed Use | water for cattle |

Stream Conditions

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

Channel Alteration

| charmer, accration | | | |
|--|---|--|--|
| 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) | 6 | |
| Bankfull Width (ft) | 6 | |
| Probed Stream Depth | 0 to 6 inches | |

Left Bank

| Left Bank Height (feet) | 4 |
|-------------------------|---|
| Left Bank Slope | 15 to 25% (9 to 14 deg) Steeply Sloping |
| Left Erosion Potential | Moderate |
| Left Bank Substrate | clay |

Left Bank Riparian Buffer Condition

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

Right Bank

| • | | |
|--------------------------|---|--|
| Right Bank Height (feet) | 4 | |
| Right Bank Slope | 15 to 25% (9 to 14 deg) Steeply Sloping | |
| Right Erosion Potential | Moderate | |
| Right Bank Substrate | clay | |
| | | |

Right Bank Riparian Buffer Condition

| <u> </u> | | |
|-------------------------------|---|--|
| Optimal (1.5) [Right] | 0 | |
| High suboptimal (1.2) [Right] | 0 | |
| Low suboptimal (1.1) [Right] | 0 | |
| High marginal (0.85) [Right] | 0 | |
| Low marginal (0.75) [Right] | 0 | |
| High poor (0.6) [Right] | 0 | |
| Low poor (0.5) [Right] | 0 | |
| Right bank total | 0 | |
| | | |

Stream Geomorphology

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

Stream Hydrology

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

Stream Biology

| Ser cann Bronogy | |
|-----------------------------------|--|
| 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 | FACW |
| Stream Biology Total | 10.25 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Strong sediment sorting, well defined bed bank |
| Stream Overview Report Photos | |
| | |

Upstream Stream Photo





Across Stream Photo 1

Across stream photo direction 1

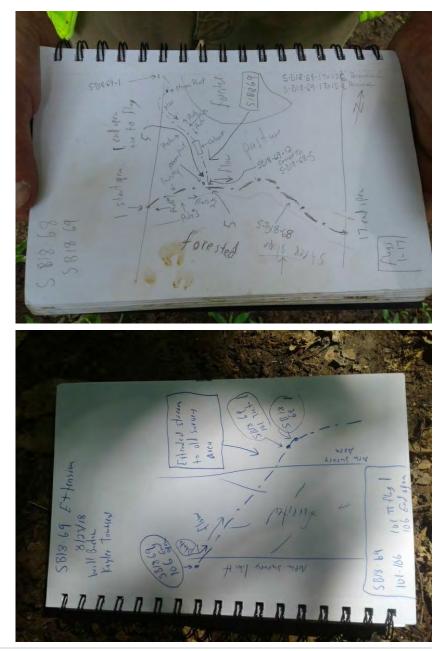
S



Across stream photo direction 2

Ν





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

S-B18-70

| Created | 2018-06-01 09:41:43 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-11 10:46:15 EDT by Sam Edmonds |
| Location | 36.322711, -79.5964685 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/01 |
| Date2 | 180601 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Simon King, Will Buetow |
|--|-------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 70 |
| Resource ID | S-B18-70 |
| 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 | 20 |
| Calculated Stream Type | Intermittent |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|--|----------------|
| Direction of Flow | Ν |
| 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 | clay | |

Left Bank Riparian Buffer Condition

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

Right Bank

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

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

| 1 05 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | Weak |
| Particle size of stream substrate | Moderate |
| Active or relict floodplain | Absent |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Weak |
| Headcuts | 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 | Moderate |
| Sediment on plants or debris | Absent |
| Organic debris lines or piles | Strong |
| 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 | Well developed ephemeral stream. |
| Straam Overview Pepert Photos | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

S



Downstream photo direction

Across Stream Photo 1

Ν



Across stream photo direction 1

W



Across stream photo direction 2

Sketch of Stream

Е



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

S-B18-71

| Created | 2018-06-01 13:57:28 UTC by Will Buetow |
|----------|--|
| Updated | 2018-08-23 18:34:49 UTC by Will Buetow |
| Location | 36.3229528, -79.596341 |
| Status | Field Crew Collected |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/01 |
| Date2 | 180601 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Simon King, Will Buetow |
|--|-------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 71 |
| Resource ID | S-B18-71 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|---|
| Calculated Stream Score | 43 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | fish, frogs, crawfish, tadpoles, macroinvertebrates |

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) | 12 |
|--------------------------|---------------|
| Average Water Width (ft) | 4 |
| Bank to Bank (ft) | 14 |
| Bankfull Width (ft) | 14 |
| Probed Stream Depth | 0 to 6 inches |

Left Bank

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

Left Bank Riparian Buffer Condition

| 0 | | |
|---|---------------------------------|--|
| 0 | | |
| 0 | | |
| 0 | | |
| 0 | | |
| 0 | | |
| 0 | | |
| 0 | | |
| | 0 0 0 0 0 0 0 | |

Right Bank

| Right Bank Height (feet) | 6 |
|--------------------------|--------------------------------|
| Right Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | clay |

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 | Moderate |
| In-channel structure | Strong |
| Particle size of stream substrate | Strong |
| Active or relict floodplain | Moderate |
| Depositional bars or benches | Moderate |
| Recent alluvial deposits | Strong |
| Headcuts | Weak |
| Grade control | Moderate |
| Natural valley | Strong |
| Second or greater order channel | No |
| Stream Geomorphology Total | 21.5 |
| | |

Stream Hydrology

| Strong |
|----------|
| Absent |
| Weak |
| Absent |
| Moderate |
| Yes |
| 8 |
| - |

Stream Biology

| Fibrous roots in streambed | Absent |
|-----------------------------------|---|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Strong |
| Aquatic mullusks | Absent |
| Fish | Strong |
| Crayfish | Strong |
| Amphibians | Strong |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 13.5 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Very well developed stream, coarse substrate, abundant wildlife |
| Stream Overview Report Photos | |
| | |

Upstream Stream Photo



Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

Е



Across stream photo direction 1

Ν



Across stream photo direction 2

Additional Stream Photos

S





Downstream



EXT UP

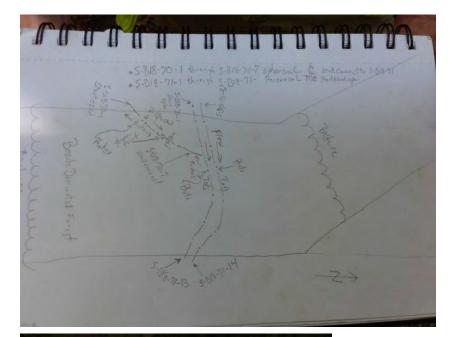


EXT DN



EXT Across

Sketch of Stream







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

S-B18-72

| Created | 2018-06-01 13:20:25 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-11 10:47:28 EDT by Sam Edmonds |
| Location | 36.4022481, -79.6443483 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/01 |
| | |
| Date2 | 180601 |

Resource Crew Info

| Field Crew | Jim Bolduc, Simon King, Will Buetow |
|--|-------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 72 |
| Resource ID | S-B18-72 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - | - Resource Series Number |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|-----------|
| Calculated Stream Score | 17.5 |
| 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) | 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 | clay |

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 | clay |

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

| 1 05 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | Moderate |
| Particle size of stream substrate | Weak |
| Active or relict floodplain | Absent |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Weak |
| Headcuts | Moderate |
| Grade control | Strong |
| Natural valley | Strong |
| Second or greater order channel | No |
| Stream Geomorphology Total | 13 |

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? | Νο |
| Stream Hydrology Total | 1.5 |

Stream Biology

| 0 | |
|-----------------------------------|--|
| Fibrous roots in streambed | Moderate |
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 3 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Ephemeral stream, well defined, few scour holes (4') deep. |
| | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Е



Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

Ν



Across stream photo direction 2

Sketch of Stream

S



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

S-B18-73

| Created | 2018-06-01 14:21:27 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-11 10:48:00 EDT by Sam Edmonds |
| Location | 36.4013448, -79.6432616 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/01 |
| Date2 | 180601 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Simon King, Will Buetow |
|---|-------------------------------------|
| | |
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 73 |
| Resource ID | S-B18-73 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - Resource Series Number | |

Stream Inventory

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

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | 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 | 15 to 25% (9 to 14 deg) Steeply Sloping |
| Left Erosion Potential | Moderate |
| Left Bank Substrate | clay |

Left Bank Riparian Buffer Condition

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

Right Bank

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

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

| Continuity of channel bed and bank | Weak |
|------------------------------------|----------|
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | Moderate |
| Particle size of stream substrate | Weak |
| Active or relict floodplain | Absent |
| Depositional bars or benches | Absent |
| Recent alluvial deposits | Absent |
| Headcuts | Moderate |
| Grade control | Moderate |
| Natural valley | Moderate |
| Second or greater order channel | No |
| Stream Geomorphology Total | 9 |

Stream Hydrology

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

Stream Biology

| 0 | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Moderate |
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 3 |
| 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

Е



Across stream photo direction 2

Sketch of Stream

W



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

S-B18-74

| Created | 2018-06-01 18:46:12 UTC by Will Buetow |
|----------|--|
| Updated | 2018-09-20 19:28:26 UTC by Susie Gifford (SBG) |
| Location | 36.4006748, -79.6427513 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/01 |
| Date2 | 180601 |

Resource Crew Info

| Field Crew | Jim Bolduc, Simon King, Will Buetow |
|--|-------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 74 |
| Resource ID | S-B18-74 |
| 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 | 41.75 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | frogs, crawfish, macroinvertebrates |

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) | 4 |
| 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 | > 35% (> 20 deg) Very Steep |
| Left Erosion Potential | High |
| Left Bank Substrate | clay |

Left Bank Riparian Buffer Condition

| 0 | |
|---|---------------------------------|
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| | 0 0 0 0 0 0 0 |

Right Bank

| Right Bank Height (feet) | 4 | |
|--------------------------|-----------------------------|--|
| Right Bank Slope | > 35% (> 20 deg) Very Steep | |
| Right Erosion Potential | High | |
| Right Bank Substrate | clay | |

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

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Strong |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Moderate |
| Particle size of stream substrate | Strong |
| Active or relict floodplain | Moderate |
| Depositional bars or benches | Moderate |
| Recent alluvial deposits | Moderate |
| Headcuts | Weak |
| Grade control | Moderate |
| Natural valley | Strong |
| Second or greater order channel | No |
| Stream Geomorphology Total | 19.5 |
| | |

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

| Sti cum Biology | | |
|-----------------------------------|--|--|
| Fibrous roots in streambed | Absent | |
| Rooted upland plants in streambed | Absent | |
| Macrobenthos | Strong | |
| Aquatic mullusks | Absent | |
| Fish | Strong | |
| Crayfish | Strong | |
| Amphibians | Strong | |
| Algae | Absent | |
| Wetland plants in streambed | FACW | |
| Stream Biology Total | 14.25 | |
| Regulatory Status | State Protected, Corps Jurisdictional | |
| Notes | Stream flows from pond outlet. Extension continues downstream of confluence. Flags 1-8 and 101-105 | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

NW



Across stream photo direction 1

SW



Across stream photo direction 2

Additional Stream Photos

NE





Upstream



Downstream



Across Stream



Sketch of Stream

4 107 END 281 -813-74 OF WET 100 (R) Fro UP X Por PEM 7 -7 7 = = 188 1 1 Continuo -S14/458/JCB 095.000 / S-BR-74 & W-BY8-78 6/2/18 NC-RO-N-Br8-78 5-B18-74 aut r r r r r r r FOREST Connect 14-73-44 5-74-119

6.20.18 LAGISLK/JJB NC-RO-092.000 S-B18-74 ext S-A18-172 5-018-74 ext Ka seit 800 to 101 -418-172 TN

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

S-B18-75

| Created | 2018-06-01 15:16:17 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-11 10:48:59 EDT by Sam Edmonds |
| Location | 36.4008457, -79.6422968 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/01 |
| Date2 | 180601 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Simon King, Will Buetow |
|---|-------------------------------------|
| Lead Scientist's Initials | B18 |
| | Simon King |
| GPS Surveyor | |
| GPS ID | NA |
| Resource Series Number | 75 |
| Resource ID | S-B18-75 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - Re | esource Series Number |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|-----------|
| Calculated Stream Score | 10.5 |
| 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) | 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 | 25 to 35% (14 to 20 deg) Steep |
| Left Erosion Potential | High |
| Left Bank Substrate | clay |

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 | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | clay |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

| Continuity of channel bed and bank | Weak |
|------------------------------------|----------|
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | Moderate |
| Particle size of stream substrate | Absent |
| 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 | 8 |

Stream Hydrology

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

Stream Biology

| Strong Moderate Absent Absent Absent Absent |
|--|
| Absent Absent Absent Absent |
| Absent Absent Absent |
| Absent Absent |
| Absent |
| |
| Abcont |
| Absent |
| Absent |
| Other |
| 1 |
| State Protected, Corps Jurisdictional |
| Ephemeral stream starts in transmission line right of way, trains into s-b18-74. |
| |

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

Ν



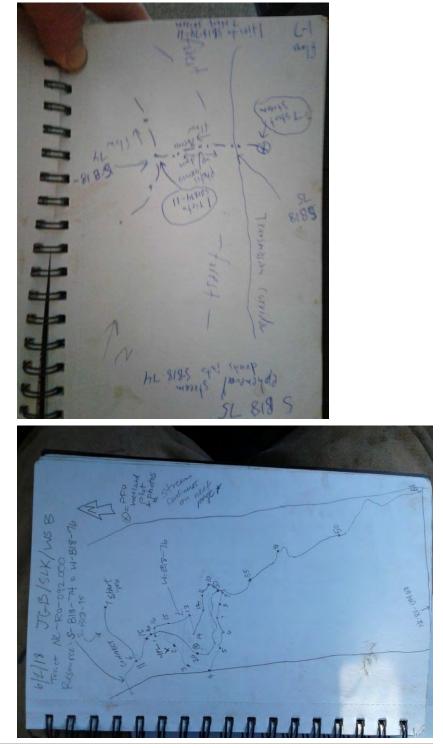
Across stream photo direction 2

Additional Stream Photos

S



Sketch of Stream



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

WB-B18-77

| Created | 2018-06-02 10:18:59 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-07 10:52:23 EDT by Sam Edmonds |
| Location | 36.3976306, -79.6403065 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/02 |
| Date2 | 180602 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Simon King, Will Buetow | |
|--|-------------------------------------|--|
| Lead Scientist's Initials | B18 | |
| GPS Surveyor | Simon King | |
| GPS ID | NA | |
| Resource Series Number | 77 | |
| Resource ID | WB-B18-77 | |
| Do you need to override the resource id? | Yes | |
| esource ID Override WB-B18-77 | | |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number | |

Stream Inventory

| Stream inventory | | |
|--|----------------|--|
| Stream / Waterbody Type | Pond | |
| Calculated Stream Score | 0 | |
| Calculated Stream Type | Undetermined | |
| Wildlife Observed | Frogs | |
| Stream Conditions | | |
| Water Flow Velocity | Slow (< 1 cfs) | |
| Direction of Flow | Ν | |
| 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) | 75 | |
| Average Water Width (ft) | 60 | |

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

| | NL. | |
|---------------------------------|--|--|
| Second or greater order channel | No | |
| Stream Geomorphology Total | 0 | |
| Stream Hydrology | | |
| Stream Hydrology Total | 0 | |
| Stream Biology | | |
| Stream Biology Total | 0 | |
| Regulatory Status | State Protected, Corps Jurisdictional | |
| Notes | Old pond, overgrown with Lily pads. Approximately 60' x 75' in size, not completel survey area. S-B18-74 flows through this waterbody. | |
| Stream Overview Report Photos | | |



Upstream photo direction

Downstream Stream Photo

SE



Downstream photo direction

NE



Across stream photo direction 1

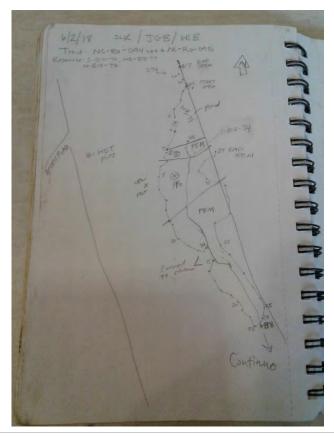
Across Stream Photo 2

Е



Across stream photo direction 2

S



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

S-B18-79

| Created | 2018-06-02 14:13:14 EDT by Will Buetow |
|-----------------|--|
| | 2010-00-02 14.15.14 EDT by Will Buckow |
| Updated | 2018-06-11 10:49:37 EDT by Sam Edmonds |
| Location | 36.3942017, -79.6381826 |
| Status | Finalized & Approved |
| Client | NextEra |
| | |
| Project | MVP Southgate |
| Project Date | MVP Southgate 18/06/02 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Simon King, Will Buetow | |
|--|-------------------------------------|--|
| | jin bolade, sinon king, win baccow | |
| Lead Scientist's Initials | B18 | |
| GPS Surveyor | Simon King | |
| GPS ID | NA | |
| Resource Series Number | 79 | |
| Resource ID | S-B18-79 | |
| Do you need to override the resource id? | No | |
| Resource ID = Resource Type - Scientist Initials - Res | ource Series Number | |

Stream Inventory

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

Stream Conditions

| Stream Conditions | |
|--|----------------|
| Water Flow Velocity | Slow (< 1 cfs) |
| Direction of Flow | Ν |
| 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 |
| | |

Left Bank

| Left Bank Height (feet) | 3 | |
|-------------------------|--------------------------------|--|
| Left Bank Slope | 25 to 35% (14 to 20 deg) Steep | |
| Left Erosion Potential | High | |
| Left Bank Substrate | clay | |

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 | clay |

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

| Moderate |
|----------|
| Absent |
| Weak |
| Strong |
| Absent |
| Weak |
| Weak |
| Strong |
| Absent |
| Weak |
| No |
| 11.5 |
| |

Stream Hydrology

| Presence of baseflow | Strong |
|--|--------|
| Iron oxidizing bacteria | Weak |
| Leaf litter | Weak |
| Sediment on plants or debris | Absent |
| Organic debris lines or piles | 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 | Small intermittent channel, starts with large head cut at flag 3, where water seeps from the ground. Drains into SB18-74. |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

Ν



Across stream photo direction 1

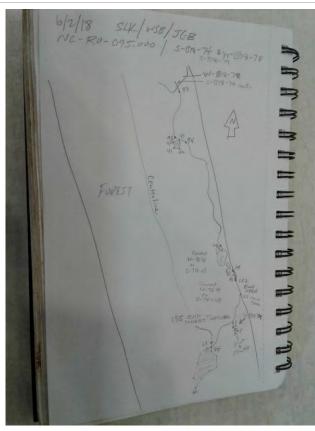
Е



Across stream photo direction 2

Sketch of Stream

W



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

S-B18-80

| Created | 2018-06-04 10:25:05 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-11 10:50:10 EDT by Sam Edmonds |
| Location | 36.122658, -79.373294 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/04 |
| Date2 | 180604 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Simon King, Will Buetow |
|--|-------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 80 |
| Resource ID | S-B18-80 |
| 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 | 32 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Frogs |

Stream Conditions

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

Channel Alteration

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

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

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 | clay |

Left Bank Riparian Buffer Condition

| 0 | |
|---|---------------------------------|
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| | 0 0 0 0 0 0 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 | clay |

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 | Moderate |
|------------------------------------|----------|
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | Moderate |
| Particle size of stream substrate | Moderate |
| Active or relict floodplain | Weak |
| Depositional bars or benches | Moderate |
| Recent alluvial deposits | Strong |
| Headcuts | Moderate |
| Grade control | Moderate |
| Natural valley | Moderate |
| Second or greater order channel | No |
| Stream Geomorphology Total | 17 |
| | |

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 | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Weak |
| Amphibians | Moderate |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 6.5 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

W



Downstream photo direction

Across Stream Photo 1

Е



Across stream photo direction 1

S

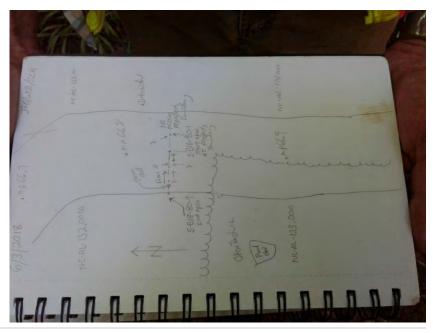


Across stream photo direction 2

Additional Stream Photos

Ν





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

S-B18-88

| Created | 2018-06-05 14:50:27 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-11 10:56:44 EDT by Sam Edmonds |
| Location | 36.0936591, -79.3690225 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/05 |
| Date2 | 180605 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Will Burrow, Jake Brillo |
|--|--------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Jake Brillo |
| GPS ID | NA |
| Resource Series Number | 88 |
| Resource ID | S-B18-88 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|-----------|
| Calculated Stream Score | 14 |
| Calculated Stream Type | Ephemeral |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|--|----------------|
| Direction of Flow | 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) | 1 | |
|-------------------------|--|--|
| Left Bank Slope | 8 to 15% (5 to 9 deg) Moderately Sloping | |
| Left Erosion Potential | Low | |
| Left Bank Substrate | clay | |

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 | clay | |

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

| 1 00 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Absent |
| In-channel structure | Weak |
| Particle size of stream substrate | Absent |
| Active or relict floodplain | Absent |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Absent |
| Headcuts | Weak |
| 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 | 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 | Weak | |
|-----------------------------------|---|--|
| Rooted upland plants in streambed | Moderate | |
| Macrobenthos | Absent | |
| Aquatic mullusks | Absent | |
| Fish | Weak | |
| Crayfish | Absent | |
| Amphibians | Absent | |
| Algae | Absent | |
| Wetland plants in streambed | Other | |
| Stream Biology Total | 3.5 | |
| Regulatory Status | State Protected, Corps Jurisdictional | |
| Notes | Small ephemeral channel drains to the Haw River, which is offsite. Stream originates from a headset at the edge of a field. | |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

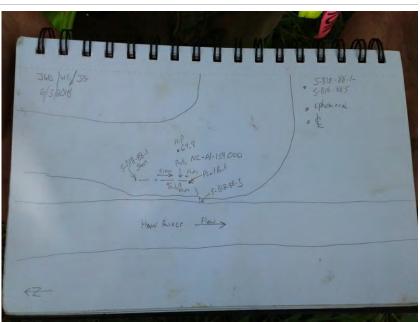
Е



Across stream photo direction 2

Sketch of Stream

W



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

S-B18-89

| Created | 2018-06-06 13:13:47 UTC by Will Buetow | |
|----------|--|--|
| | 2018-00-00 15.15.47 OTC by Will Buelow | |
| Updated | 2018-09-06 15:31:04 UTC by Joseph Roy | |
| Location | 36.3651551, -79.6149117 | |
| Status | Finalized & Approved | |
| Client | NextEra | |
| | INEXLLIA | |
| Project | MVP Southgate | |
| | | |
| Project | MVP Southgate | |

Resource Crew Info

| Field Crew | Jim Bolduc, Will Burrow, Jake Brillo | |
|--|--------------------------------------|--|
| Lead Scientist's Initials | B18 | |
| GPS Surveyor | Jake Brillo | |
| GPS ID | NA | |
| Resource Series Number | 89 | |
| Resource ID | S-B18-89 | |
| Do you need to override the resource id? | No | |
| Resource ID = Resource Type - Scientist Initials - R | esource 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 | Ν | |
| 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) | 2 | |
|-------------------------|--------------------------------|--|
| Left Bank Slope | 25 to 35% (14 to 20 deg) Steep | |
| Left Erosion Potential | High | |
| Left Bank Substrate | clay | |

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 | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | clay |

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

| Moderate |
|----------|
| Weak |
| Moderate |
| Absent |
| Absent |
| Weak |
| Absent |
| Moderate |
| Moderate |
| Strong |
| No |
| 10.5 |
| |

Stream Hydrology

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

Stream Biology

| Fibrous roots in streambed | Moderate | |
|-----------------------------------|--|--|
| Rooted upland plants in streambed | Weak | |
| Macrobenthos | Absent | |
| Aquatic mullusks | Absent | |
| Fish | Absent | |
| Crayfish | Absent | |
| Amphibians | Absent | |
| Algae | Absent | |
| Wetland plants in streambed | Other | |
| Stream Biology Total | 3 | |
| Regulatory Status | State Protected, Corps Jurisdictional | |
| Notes | Near the start of an ephemeral stream that continues on a red parcel. This is only smal part of stream. Start point is 70 to 80 feet to south. Additional stream photos for extension P1 up, P2 dn, P3 across: flags 1-3 end | |
| | | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

Ν



Across stream photo direction 1

W



Across stream photo direction 2

Additional Stream Photos

Е







EXT 100s UP



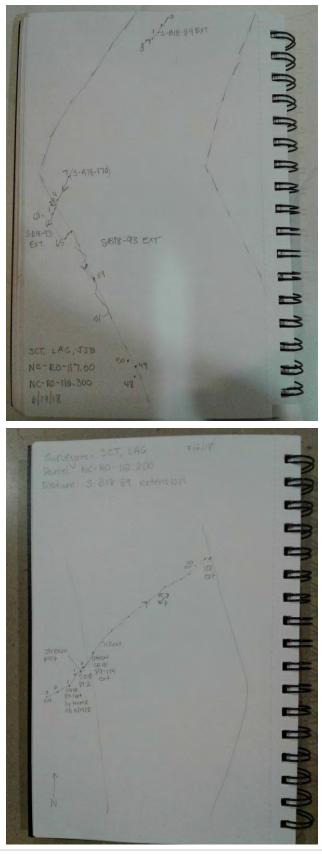
EXT 100s across NW



EXT 100s DN



Sketch of Stream



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

S-B18-90a

| Created | 2018-06-06 14:39:30 UTC by Will Buetow |
|----------|---|
| Updated | 2018-09-13 15:58:05 UTC by Phil Jacques |
| Location | 36.3607902, -79.6134581 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/06 |
| Date2 | 180606 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Will Burrow, Jake Brillo |
|--|--------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Jake Brillo |
| GPS ID | NA |
| Resource Series Number | 90 |
| Resource ID | S-B18-90a |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-90a |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 34 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Frogs |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | SE |

Channel Alteration

| charmer / accration | | | |
|--|---|--|--|
| 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) | 1 |
|-------------------------|--|
| Left Bank Slope | 8 to 15% (5 to 9 deg) Moderately Sloping |
| Left Erosion Potential | Moderate |
| Left Bank Substrate | clay |

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 | clay | |
| | | |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

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

Stream Hydrology

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

Stream Biology

| Sti cum 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 | Intermittent stream located below an ephemeral part of the same stream. Strong bed and bank. |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

SE



Across stream photo direction 1

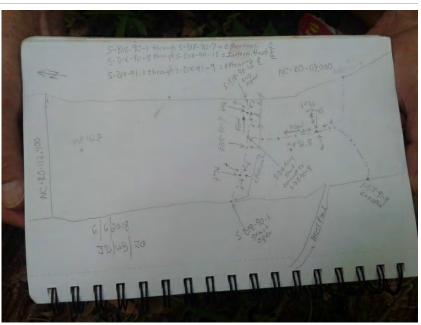
NE



Across stream photo direction 2

Sketch of Stream

SW



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

S-B18-90b

| Created | 2018-06-06 14:20:57 UTC by Will Buetow |
|----------|---|
| Updated | 2018-09-13 15:58:55 UTC by Phil Jacques |
| Location | 36.3611337, -79.6140512 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/06 |
| Date2 | 180606 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Will Burrow, Jake Brillo |
|--|--------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Jake Brillo |
| GPS ID | NA |
| Resource Series Number | 90 |
| Resource ID | S-B18-90b |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-90b |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|--------------|
| Calculated Stream Score | 19 |
| 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 | | | |
| | 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 | clay |

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 | clay | |

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

Stream Hydrology

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

Stream Biology

| Fibrous roots in streambed | Strong |
|-----------------------------------|---|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 2 |
| Notes | Headwater ephemeral stream, near the start of the stream. |

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

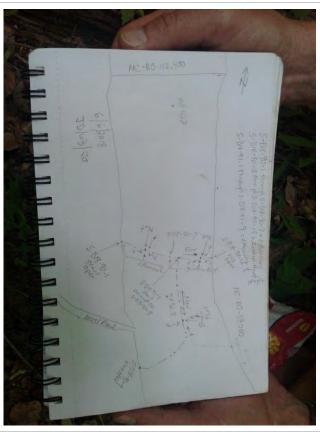
Е



Across stream photo direction 2

Sketch of Stream

W



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

S-B18-91

| Created | 2018-06-06 10:54:37 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-11 10:58:17 EDT by Sam Edmonds |
| Location | 36.3605719, -79.6139901 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/06 |
| Date2 | 180606 |
| | |

Resource Crew Info

| Jim Bolduc, Will Burrow, Jake Brillo |
|--------------------------------------|
| B18 |
| Jake Brillo |
| NA |
| 91 |
| S-B18-91 |
| No |
| 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 | Ν |
| 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) | 2 |
| 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 | clay | |

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 | clay |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

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

Stream Hydrology

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

Stream Biology

| Fibrous roots in streambed | Moderate |
|-----------------------------------|--|
| Rooted upland plants in streambed | Moderate |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 2 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Headwater, ephemeral stream. Bed, bank and sediment sorting. |
| | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

S



Downstream photo direction

Across Stream Photo 1

Ν



Across stream photo direction 1

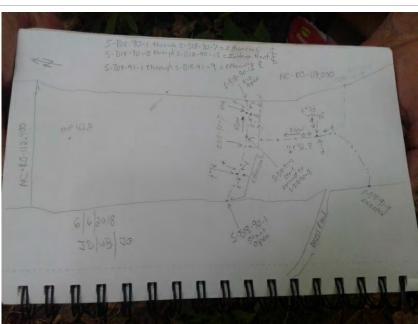
W



Across stream photo direction 2

Sketch of Stream

Е



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

S-B18-92

| Created | 2018-06-06 17:14:16 UTC by Will Buetow |
|----------|--|
| Updated | 2018-09-11 15:54:58 UTC by Maggie Molnar |
| Location | 36.3548702, -79.6137181 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/06 |
| Date2 | 180606 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Will Burrow, Jake Brillo |
|--|--------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Jake Brillo |
| GPS ID | NA |
| Resource Series Number | 92 |
| Resource ID | S-B18-92 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - R | esource Series Number |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|-----------|
| Calculated Stream Score | 44.5 |
| Wildlife Observed | Fish |

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) | 5 |
| Average Water Width (ft) | 5 |
| Bank to Bank (ft) | 6 |
| Bankfull Width (ft) | 6 |
| Probed Stream Depth | 6 to 12 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 | clay |

Left Bank Riparian Buffer Condition

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

Right Bank

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

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

| 1 05 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Strong |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Strong |
| Particle size of stream substrate | Strong |
| Active or relict floodplain | Moderate |
| Depositional bars or benches | Strong |
| Recent alluvial deposits | Strong |
| Headcuts | Moderate |
| Grade control | Moderate |
| Natural valley | Moderate |
| Second or greater order channel | Yes |
| Stream Geomorphology Total | 26 |

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 | Strong |
| Crayfish | Strong |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 10 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Nice perennial stream, lots of fish and crawfish. Very well defined. Narrow channel in the power line right of way and gets wider in the woods. |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

Е



Across stream photo direction 1

Ν



Across stream photo direction 2

Additional Stream Photos

S



east ext.



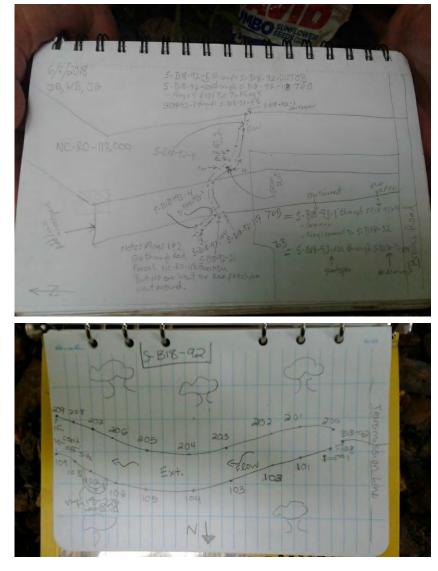
west ext.



north ext.



south ext.



extension sketch

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

S-B18-93

| Created | 2018-06-06 13:53:28 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-20 09:46:07 EDT by Sam Edmonds |
| Location | 36.354768, -79.6140542 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/06 |
| Date2 | 180606 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Will Burrow, Jake Brillo |
|--|--------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Jake Brillo |
| GPS ID | NA |
| Resource Series Number | 93 |
| Resource ID | S-B18-93 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - F | Resource Series Number |

Stream Inventory

| Stream / Waterbody Type | Perennial | |
|-------------------------|-----------|--|
| Calculated Stream Score | 41 | |
| 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) | 5 |
| Average Water Width (ft) | 5 |
| Bank to Bank (ft) | 6 |
| Bankfull Width (ft) | 6 |

0 to 6 inches

Left Bank

Probed Stream Depth

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

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 | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | clay |

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 | Strong |
| Particle size of stream substrate | Strong |
| Active or relict floodplain | Moderate |
| Depositional bars or benches | Strong |
| Recent alluvial deposits | Strong |
| Headcuts | Weak |
| Grade control | Moderate |
| Natural valley | Strong |
| Second or greater order channel | Yes |
| Stream Geomorphology Total | 24.5 |
| | |

Stream Hydrology

| Presence of baseflow | Strong |
|--|----------|
| 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 | 8 |

Stream Biology

| Fibrous roots in streambed | Absent | |
|-----------------------------------|---|--|
| Rooted upland plants in streambed | Absent | |
| Macrobenthos | Weak | |
| Aquatic mullusks | Absent | |
| Fish | Moderate | |
| Crayfish | Weak | |
| Amphibians | Absent | |
| Algae | Absent | |
| Wetland plants in streambed | Other | |
| Stream Biology Total | 8.5 | |
| Regulatory Status | State Protected, Corps Jurisdictional | |
| Notes | Nice perennial stream, flows into s-b18-92. Well defined bed and bank. Additional stream photos for extension P1 up, P2 dn, P3 across. Upper stream flags 51-54 additional photos P4 up, P5 dn, P6 Across | |
| | | |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

Е



Across stream photo direction 2

Additional Stream Photos

W



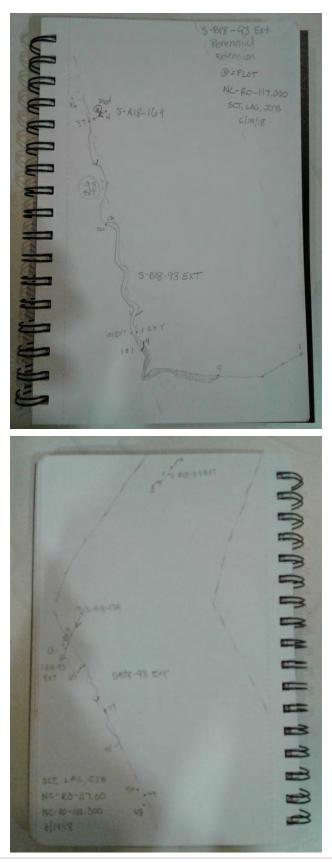






Scholls Sch

Sketch of Stream



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

S-B18-94

| Created | 2018-06-07 09:04:28 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-11 11:00:00 EDT by Sam Edmonds |
| Location | 36.2416368, -79.5315985 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/07 |
| Date2 | 180607 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Will Burrow, Jake Brillo |
|--|--------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Jake Brillo |
| GPS ID | NA |
| Resource Series Number | 94 |
| Resource ID | S-B18-94 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|-----------|
| Calculated Stream Score | 35 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Frogs |

Stream Conditions

| Water Flow Velocity | Slow (< 1 cfs) |
|---------------------|----------------|
| Direction of Flow | W |

Channel Alteration

| Negligible (1.5) Channel Alteration | 0 |
|--|---------------|
| Low Minor (1.3) Channel Alteration | 0 |
| High Minor (1.1) Channel Alteration | 0 |
| Low Moderate (0.9) Channel Alteration | 0 |
| High Moderate (0.7) Channel Alteration | 0 |
| Severe (0.5) Channel Alteration | 0 |
| Channel Alteration Total | 0 |
| Stream Measurements | |
| OHWM Width (ft) | 4 |
| Average Water Width (ft) | 3 |
| Bank to Bank (ft) | 4 |
| Bankfull Width (ft) | 4 |
| Probed Stream Depth | 0 to 6 inches |

Left Bank

| Left Bank Height (feet) | 3 |
|-------------------------|-----------------------------|
| Left Bank Slope | > 35% (> 20 deg) Very 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) | 3 |
|--------------------------|-----------------------------|
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| 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 | Weak |
| 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 | Weak |
| Grade control | Moderate |
| Natural valley | Moderate |
| Second or greater order channel | Yes |
| Stream Geomorphology Total | 20 |
| | |

Stream Hydrology

| Presence of baseflow | Moderate |
|--|----------|
| Iron oxidizing bacteria | Weak |
| 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

| Stream Biology | |
|-----------------------------------|--|
| Fibrous roots in streambed | Absent |
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 6.5 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Perennial stream makes up property boundary between two parcels. We only have access to one parcel. Water is turbid. |
| | |

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



Across stream photo direction 2

Additional Stream Photos

Е



Sketch of Stream

5818. 191,1-6 Ŧ F

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

| Created2018-06-07 12:05:52 EDT by Will BuetowUpdated2018-06-25 10:18:34 EDT by Sam EdmondsLocation36.4829388, -79.6866229StatusInilized & ApprovedClientNextEraProjectMVP SouthgateDate18/06/07Date2180607 | | | |
|--|----------|--|--|
| Location36.4829388, -79.6866229StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/06/07 | Created | 2018-06-07 12:05:52 EDT by Will Buetow | |
| StatusFinalized & ApprovedClientNextEraProjectMVP SouthgateDate18/06/07 | Updated | 2018-06-25 10:18:34 EDT by Sam Edmonds | |
| Client NextEra Project MVP Southgate Date 18/06/07 | Location | 36.4829388, -79.6866229 | |
| ProjectMVP SouthgateDate18/06/07 | Status | Finalized & Approved | |
| Date 18/06/07 | Client | NextEra | |
| | Project | MVP Southgate | |
| Date2 180607 | Date | 18/06/07 | |
| | Date2 | 180607 | |

Resource Crew Info

| Field Crew | Jim Bolduc, Will Burrow, Jake Brillo |
|--|--------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Jake Brillo |
| GPS ID | NA |
| Resource Series Number | 95 |
| Resource ID | S-B18-95 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| 2 | |
|-------------------------|-----------|
| 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 | Ν |

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) | 20 | |
| Bank to Bank (ft) | 30 | |
| Bankfull Width (ft) | 30 | |
| 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 | Moderate |
| Left Bank Substrate | Bedrock, Cobble-Gravel, Silt-Mud |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 4 |
|--------------------------|----------------------------------|
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Low |
| Right Bank Substrate | Bedrock, Cobble-Gravel, Silt-Mud |
| | |

Right Bank Riparian Buffer Condition

| 0 | |
|---|---|
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| | 0 0 0 0 0 0 0 0 0 |

Stream Geomorphology

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Strong |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Strong |
| Particle size of stream substrate | Strong |
| Active or relict floodplain | Weak |
| Depositional bars or benches | Moderate |
| Recent alluvial deposits | Moderate |
| Headcuts | Moderate |
| Grade control | Moderate |
| Natural valley | Strong |
| Second or greater order channel | Yes |
| Stream Geomorphology Total | 23.5 |
| | |

Stream Hydrology

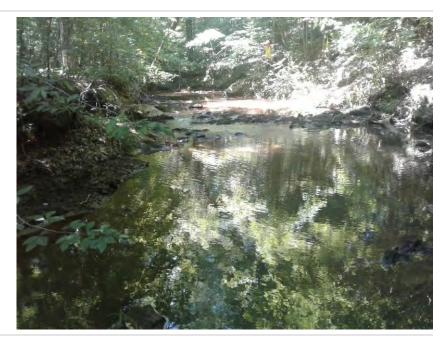
| Presence of baseflow | Strong |
|--|--------|
| Iron oxidizing bacteria | Weak |
| Leaf litter | Weak |
| Sediment on plants or debris | Absent |
| Organic debris lines or piles | Weak |
| Soil-based evidence of high water table? | Yes |
| Stream Hydrology Total | 8.5 |
| | |

Stream Biology

| Absent |
|--|
| Absent |
| Strong |
| Absent |
| Weak |
| Strong |
| Absent |
| Absent |
| Other |
| 11 |
| State Protected, Corps Jurisdictional |
| Broad stream, strongly defined bed and bank, numerous riffle-pool sequences in the stream. |
| |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

Ν



Across stream photo direction 1

Е

Across Stream Photo 2

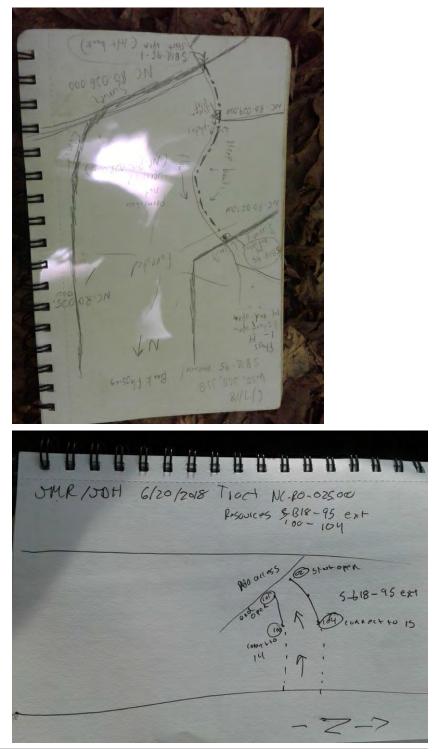


Across stream photo direction 2

W



Sketch of Stream



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

| Created | 2018-06-07 13:29:19 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-25 10:53:42 EDT by Sam Edmonds |
| Location | 36.4809277, -79.6906671 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/07 |
| Date2 | 180607 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Will Burrow, Jake Brillo |
|--|--------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Jake Brillo |
| GPS ID | NA |
| Resource Series Number | 96 |
| Resource ID | S-B18-96 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|-----------|
| Calculated Stream Score | 14 |
| Calculated Stream Type | Ephemeral |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|--|----------------|
| Direction of Flow | Ν |
| 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 | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | Moderate | |
| Left Bank Substrate | Silt-Mud | |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 2 |
|--------------------------|-----------------------------|
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Moderate |
| Right Bank Substrate | Silt-Mud |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

| Continuity of channel bed and bank | Strong |
|------------------------------------|----------|
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Absent |
| 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 | Strong |
| Second or greater order channel | No |
| Stream Geomorphology Total | 9.5 |

Stream Hydrology

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

Stream Biology

| Fibrous roots in streambed | Moderate |
|-----------------------------------|--|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 3 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Ephemeral stream in valley. Well defined bed and bank. Steeper Channel gradient. Stream extends beyond survey limits. Additional flags for extension 1-7. |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

Ν



Across stream photo direction 1

Е



Across stream photo direction 2

Additional Stream Photos

W



Upstream

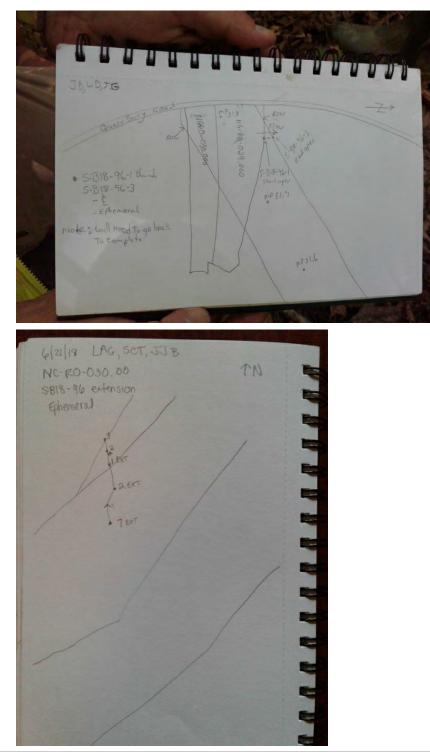


Downstream



Across

Sketch of Stream



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

| Created2018-06-08 15:47:09 UTC by Will BuetowUpdated2018-09-20 19:29:43 UTC by Susie Gifford (SBG)Location36.5365369, -79.637551StatusInalized & ApprovedClientNextEraProjectMVP SouthgateDate//Date2180611 | | |
|---|----------|--|
| Location 36.5365369, -79.637551 Status Finalized & Approved Client NextEra Project MVP Southgate Date // | Created | 2018-06-08 15:47:09 UTC by Will Buetow |
| Status Finalized & Approved Client NextEra Project MVP Southgate Date // | Updated | 2018-09-20 19:29:43 UTC by Susie Gifford (SBG) |
| Client NextEra Project MVP Southgate Date // | Location | 36.5365369, -79.637551 |
| Project MVP Southgate Date // | Status | Finalized & Approved |
| Date // | Client | NextEra |
| | Project | MVP Southgate |
| Date2 180611 | Date | 1/ |
| | Date2 | 180611 |

Resource Crew Info

| Field Crew | Jim Bolduc, Will Burrow, Jake Brillo |
|--|--------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Jake Brillo |
| GPS ID | NA |
| Resource Series Number | 99 |
| Resource ID | S-B18-99 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - R | esource Series Number |

Stream Inventory

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

0 to 6 inches

Left Bank

Probed Stream Depth

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

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 | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | Moderate |
| Right Bank Substrate | Sand |

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

| Weak |
|----------|
| Weak |
| Weak |
| Strong |
| Weak |
| Weak |
| Moderate |
| Weak |
| Weak |
| Moderate |
| No |
| 12.5 |
| |

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 | 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 | Intermittent stream within WETLAND W-B18-98. Weak bed and bank. |
| | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

NE



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

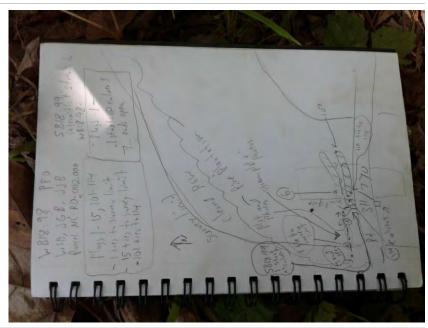
SE



Across stream photo direction 2

Sketch of Stream

NW



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

| Created | 2018-06-08 15:36:17 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-11 10:14:39 EDT by Sam Edmonds |
| Location | 36.4856341, -79.685156 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | // |
| Date2 | 180611 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Will Burrow, Jake Brillo |
|--|--------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Jake Brillo |
| GPS ID | NA |
| Resource Series Number | 102 |
| Resource ID | S-B18-102 |
| 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 | 35.75 |
| 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) | 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) | 3 |
|-------------------------|--------------------------------|
| Left Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Left Erosion Potential | High |
| Left Bank Substrate | clay |

Left Bank Riparian Buffer Condition

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

Right Bank

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

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 | Moderate |
| Recent alluvial deposits | Moderate |
| Headcuts | Weak |
| Grade control | Moderate |
| Natural valley | Strong |
| Second or greater order channel | Yes |
| Stream Geomorphology Total | 17.5 |
| | |

Stream Hydrology

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

Stream Biology

| 0 | |
|-----------------------------------|---|
| Fibrous roots in streambed | Absent |
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Weak |
| Aquatic mullusks | Strong |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 10.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Steep gradient stream, strong bed and bank. |
| | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

SE



Downstream photo direction

Across Stream Photo 1

NW



Across stream photo direction 1

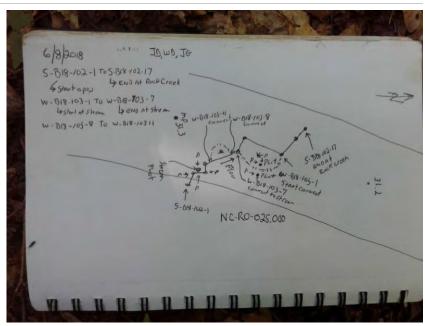
NE



Across stream photo direction 2

Sketch of Stream

SW



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

| Created | 2018-06-09 09:28:40 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-11 10:17:20 EDT by Sam Edmonds |
| Location | 36.4887799, -79.6841809 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | // |
| Date2 | 180611 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Will Burrow, Jake Brillo |
|--|--------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Jake Brillo |
| GPS ID | NA |
| Resource Series Number | 104 |
| Resource ID | S-B18-104 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - R | Resource Series Number |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|---------------|
| Calculated Stream Score | 33 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Invertebrates |

Stream Conditions

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

Channel Alteration

Bankfull Width (ft) Probed Stream Depth

| 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 | |

5

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 | clay |

Left Bank Riparian Buffer Condition

| - |
|---|

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 | clay |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

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

Stream Hydrology

| Strong |
|--------|
| Absent |
| Absent |
| Absent |
| Absent |
| Yes |
| 7.5 |
| |

Stream Biology

| Fibrous roots in streambed | Absent | |
|-----------------------------------|---|--|
| Rooted upland plants in streambed | Absent | |
| Macrobenthos | Weak | |
| Aquatic mullusks | Weak | |
| Fish | Absent | |
| Crayfish | Moderate | |
| Amphibians | Absent | |
| Algae | Absent | |
| Wetland plants in streambed | Other | |
| Stream Biology Total | 9 | |
| Regulatory Status | State Protected, Corps Jurisdictional | |
| Notes | Well developed bed and bank. Entrenched stream. 6/9/2018. | |
| 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

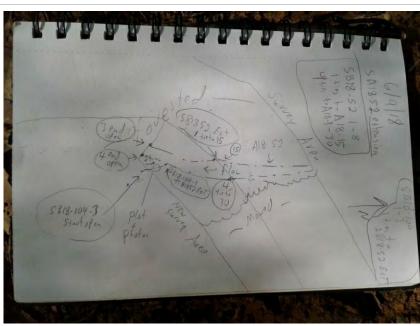
S



Across stream photo direction 2

Sketch of Stream

Ν



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

| Created | 2018-06-09 11:16:38 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-11 10:18:24 EDT by Sam Edmonds |
| Location | 36.4868407, -79.6854313 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | // |
| Date2 | 180611 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Will Buetow, Jake Brillo |
|--|--------------------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 105 |
| Resource ID | S-B18-105 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - R | esource Series Number |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 29.5 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | Frogs |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | 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) | 2 | |
| | | |

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 | clay | |

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 | clay | |

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

| 1 05 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Moderate |
| Particle size of stream substrate | Moderate |
| Active or relict floodplain | Absent |
| Depositional bars or benches | Moderate |
| Recent alluvial deposits | Weak |
| Headcuts | Weak |
| Grade control | Moderate |
| Natural valley | Strong |
| Second or greater order channel | No |
| Stream Geomorphology Total | 14.5 |
| | |

Stream Hydrology

| Moderate |
|----------|
| Absent |
| Moderate |
| Absent |
| Moderate |
| Yes |
| 6.5 |
| |

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 | Weak | |
| Algae | Absent | |
| Wetland plants in streambed | Other | |
| Stream Biology Total | 8.5 | |
| Regulatory Status | State Protected, Corps Jurisdictional | |
| Notes | Moderately developed bed and bank, does have low flow. Strongly defined drainage. 6/9/2018. | |
| | | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1



Across stream photo direction 1

S



Across stream photo direction 2

Sketch of Stream



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

| Created | 2018-06-11 12:44:16 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-12 11:34:30 EDT by Sam Edmonds |
| Location | 36.4947989, -79.678245 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/11 |
| Date2 | 180611 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Simon King, Doreen Donvan |
|--|---------------------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 106 |
| Resource ID | S-B18-106 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-106 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|--|----------------|
| Calculated Stream Score | 20 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | Frogs |
| Observed Use | Drainage |
| Stream Conditions | |
| Water Flow Velocity | Slow (< 1 cfs) |
| Direction of Flow | NE |
| 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) | 4 |
| Average Water Width (ft) | 3 |
| | |

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

| Left Bank Height (feet) | 1 |
|-------------------------|-----------------------------|
| Left Bank Slope | > 35% (> 20 deg) Very Steep |
| Left Erosion Potential | High |
| Left Bank Substrate | Silt-Mud |

Left Bank Riparian Buffer Condition

| 0 | |
|-----|---|
| 1.2 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 1.2 | |
| | 1.2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |

Right Bank

| Right Bank Height (feet) | 1 | |
|--------------------------|-----------------------------|--|
| 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] | 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 | Absent |
| Active or relict floodplain | Weak |
| 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 | 7.5 |

| Presence of baseflow | Moderate |
|--|----------|
| 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 | 7 |

Stream Biology

| Weak |
|---------------------------------------|
| Absent |
| Weak |
| Absent |
| Other |
| 5.5 |
| State Protected, Corps Jurisdictional |
| Old ditched stream |
| |
| |



Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

Е



Across stream photo direction 1

Е



Across stream photo direction 2

Sketch of Stream

W

| a a | | | 40 | | |
|-----|--------------|--|-------------------------|-----------------------|-----|
| | - Plan out | - 5-B18-106-104-104 5-018-106-45 - Perennul - 4 - 5-B18-107-1 through 5-D18-107-9 | G/11/2018 JB, SK, DD | | いたの |
| h. | -D1808-10 | 018-/00-45 | 1 | Suth Eclocist land | |
| | 000" 410-02- | and a stand of the | Summer Surantes | Soth Fielderest Konch | |
| | o 5 | Contraction of the second | / * | R R R | |

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

S-B18-108

| Created | 2018-06-11 16:23:09 EDT by Will Buetow |
|----------|--|
| Updated | 2018-06-12 11:36:03 EDT by Sam Edmonds |
| Location | 36.3869421, -79.6357517 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/11 |
| Date2 | 180611 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Simon King |
|--|--------------------------|
| Lead Scientist's Initials | Jgb |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 108 |
| Resource ID | S-B18-108 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-108 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|-----------------|
| Calculated Stream Score | 36 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Fish |
| Observed Use | forested stream |
| | |

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 |

Stream Measurements

| OHWM Width (ft) | 8 |
|--------------------------|---|
| Average Water Width (ft) | 5 |

| Bank to Bank (ft) | 12 |
|---------------------|----------------|
| Bankfull Width (ft) | 12 |
| 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 | Bedrock, Boulder/Slabs, Rubble, 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 | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | Moderate |
| Right Bank Substrate | Bedrock, Boulder/Slabs, Silt-Mud |

Right Bank Riparian Buffer Condition

| 0 1 | | |
|-------------------------------|-----|--|
| 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 | |

| i | |
|------------------------------------|----------|
| 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 | Moderate |
| Depositional bars or benches | Moderate |
| Recent alluvial deposits | Weak |
| Headcuts | Weak |
| Grade control | Moderate |
| | |

| Natural valley | Moderate |
|---------------------------------|----------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 18 |

| Moderate |
|----------|
| Absent |
| Absent |
| Absent |
| Weak |
| Yes |
| 7 |
| |

Stream Biology

| Fibrous roots in streambed | Absent |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Moderate |
| Aquatic mullusks | Weak |
| Fish | Moderate |
| Crayfish | Weak |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 11 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Nice stream in forested canopy |
| Stream Overview Report Photos | |



Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

Е



Across stream photo direction 1

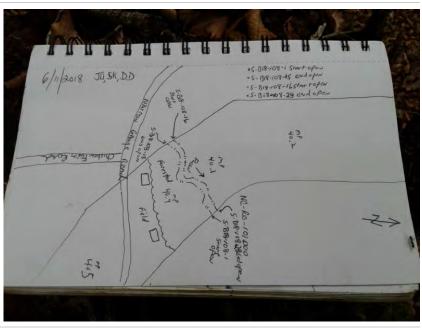
Ν



Across stream photo direction 2

Sketch of Stream

SW



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

S-B18-109

| Created | 2018-06-12 09:42:08 EDT by Will Buetow |
|-------------------|--|
| Updated | 2018-06-13 11:18:03 EDT by Sam Edmonds |
| Location | 36.3869066, -79.6362679 |
| Status | Finalized & Approved |
| | |
| Client | NextEra |
| Client Project | NextEra MVP Southgate |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Joe Roy |
|--|--------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 109 |
| Resource ID | S-B18-109 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-109 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Ephemeral |
|---------------|
| 12.75 |
| Ephemeral |
| none observed |
| Drainage |
| |

Stream Conditions

| Water Flow Velocity | Dry or Minimal | |
|---------------------|----------------|--|
| Direction of Flow | NE | |
| 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 |

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 Height (feet) | 2 | |
|-------------------------|---|--|
| Left Bank Slope | 15 to 25% (9 to 14 deg) Steeply Sloping | |
| Left Erosion Potential | Low | |
| Left Bank Substrate | Mud or muck | |

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 | Mud or muck |

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 | Weak |
|------------------------------------|--------|
| 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 | Moderate |
|---------------------------------|----------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 3 |

| , ., | |
|--|--------|
| 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? | Yes |
| Stream Hydrology Total | 3 |

Stream Biology

| Fibrous roots in streambed | Absent |
|-----------------------------------|--|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 6.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Ephemeral drainage from side slopes seep |
| | |

Stream Overview Report Photos





Downstream photo direction

Across Stream Photo 1

NE



Across stream photo direction 1

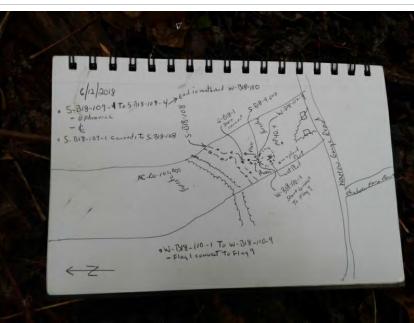
Е



Across stream photo direction 2

Sketch of Stream

W



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

S-B18-111

| Created2018-06-12 13:29:35 EDUpdated2018-06-13 11:18:57 EDLocation36.3872799, -79.636957StatusFinalized & ApproveClientNextEraProjectMVP SouthgateDate18/06/12 | |
|--|------------------|
| Location36.3872799, -79.636957StatusFinalized & ApproveClientNextEraProjectMVP SouthgateDate18/06/12 | T by Will Buetow |
| StatusFinalized & ApproveClientNextEraProjectMVP SouthgateDate18/06/12 | T by Sam Edmonds |
| Client NextEra Project MVP Southgate Date 18/06/12 | 1 |
| ProjectMVP SouthgateDate18/06/12 | d |
| Date 18/06/12 | |
| | |
| | |
| Date2 180612 | |

Resource Crew Info

| Field Crew | Jim Bolduc, Joe Roy |
|--|--------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 111 |
| Resource ID | S-B18-111 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-111 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent | |
|-------------------------|--------------|--|
| Calculated Stream Score | 23.75 | |
| Calculated Stream Type | Intermittent | |
| Wildlife Observed | Frogs | |
| Observed Use | Drainage | |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| 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 | 0.9 | |
| High Moderate (0.7) Channel Alteration | 0 | |
| Severe (0.5) Channel Alteration | 0 | |
| Channel Alteration Total | 0.9 | |

Stream Measurements

| OHWM Width (ft) | 3 |
|--------------------------|---|
| Average Water Width (ft) | 2 |

| Bank to Bank (ft) | 5 |
|---------------------|---------------|
| Bankfull Width (ft) | 5 |
| Probed Stream Depth | 0 to 6 inches |

| Left Bank Height (feet) | 3 |
|-------------------------|-----------------------------|
| Left Bank Slope | > 35% (> 20 deg) Very Steep |
| Left Erosion Potential | High |
| Left Bank Substrate | Silt-Mud |

Left Bank Riparian Buffer Condition

| Optimal (1.5) [Left] | 0 | |
|------------------------------|-----|--|
| High suboptimal (1.2) [Left] | 0 | |
| Low suboptimal (1.1) [Left] | 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 | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | Silt-Mud |

Right Bank Riparian Buffer Condition

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

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Weak |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Weak |
| Particle size of stream substrate | Weak |
| Active or relict floodplain | Absent |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Weak |
| Headcuts | Weak |
| Grade control | Moderate |
| | |

| Natural valley | Moderate |
|---------------------------------|----------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 10 |

| Moderate |
|----------|
| Absent |
| Weak |
| Weak |
| Absent |
| Yes |
| 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 | Weak |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 7.25 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Stream begins from hole in the ground |
| | |

Stream Overview Report Photos





Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

SW



Across stream photo direction 2

Sketch of Stream

NE



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

S-B18-113

| Created | 2018-06-13 13:53:22 UTC by Will Buetow |
|-------------------|--|
| Updated | 2018-09-20 19:21:07 UTC by Susie Gifford (SBG) |
| Location | 36.1461019, -79.4178398 |
| Status | Finalized & Approved |
| | |
| Client | NextEra |
| Client Project | NextEra MVP Southgate |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Joe Roy |
|--|--------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 113 |
| Resource ID | S-B18-113 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-113 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| 5 | |
|-------------------------|----------------|
| Stream / Waterbody Type | Intermittent |
| Calculated Stream Score | 21.5 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | none observed |
| 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 | 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) | 4 |
|---------------------|---------------|
| Bankfull Width (ft) | 4 |
| Probed Stream Depth | 0 to 6 inches |

| Left Bank Height (feet) | 2 | |
|-------------------------|-----------------------------|--|
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | Moderate | |
| Left Bank Substrate | Silt-Mud | |

Left Bank Riparian Buffer Condition

| Optimal (1.5) [Left] | 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 | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Moderate |
| Right Bank Substrate | 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 | |
| | | |

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Weak |
| Particle size of stream substrate | Absent |
| Active or relict floodplain | Moderate |
| 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 | 7.5 |

| Moderate |
|----------|
| Weak |
| Weak |
| Weak |
| Weak |
| Yes |
| 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 | Other |
| Stream Biology Total | 6 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |





Downstream photo direction

Across Stream Photo 1

Е



Across stream photo direction 1

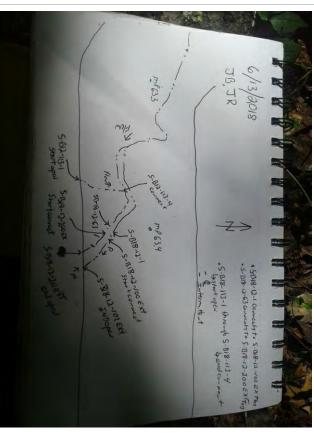
Ν



Across stream photo direction 2

Sketch of Stream

S



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

S-B18-116

| Created | 2018-06-13 15:27:49 EDT by Will Buetow |
|----------|--|
| | |
| Updated | 2018-06-14 13:59:19 EDT by Sam Edmonds |
| Location | 36.3771774, -79.6254157 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/13 |
| Date | 10/0/15 |

Resource Crew Info

| Field Crew | Jim Bolduc, Joe Roy |
|--|--------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 116 |
| Resource ID | S-B18-116 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-116 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream inventory | |
|--|----------------|
| Stream / Waterbody Type | Intermittent |
| Calculated Stream Score | 18.5 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | none observed |
| Observed Use | Drainage |
| Stream Conditions | |
| Water Flow Velocity | Dry or Minimal |
| Direction of Flow | NE |
| Channel condition | Severe |
| 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) | 2 |

| Bank to Bank (ft) | 8 |
|---------------------|---------------|
| Bankfull Width (ft) | 8 |
| Probed Stream Depth | 0 to 6 inches |

| Left Bank Height (feet) | 5 | |
|-------------------------|-----------------------------|--|
| 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] | 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) | 5 | |
|--------------------------|-----------------------------|--|
| 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] | 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 | Moderate |
|------------------------------------|----------|
| Sinuosity of channel along thalweg | Absent |
| In-channel structure | Weak |
| Particle size of stream substrate | Absent |
| Active or relict floodplain | Strong |
| 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 | Moderate |
| 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 | 6.5 |
| | |

Stream Biology

| Absent |
|---------------------------------------|
| Absent |
| Other |
| 6 |
| State Protected, Corps Jurisdictional |
| Drainage ditch |
| |
| |





Downstream photo direction

Across Stream Photo 1

NE



Across stream photo direction 1

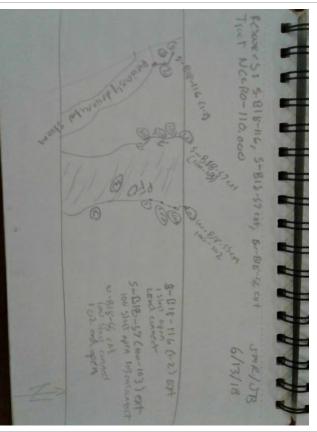
NW



Across stream photo direction 2

Sketch of Stream

SE



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

S-B18-117

| Created | 2018-06-14 15:00:08 UTC by Will Buetow |
|----------|--|
| Updated | 2018-08-29 12:45:11 UTC by Will Buetow |
| Location | 36.4169134, -79.6503488 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/14 |
| Date2 | 180614 |
| | |

Resource Crew Info

| Field Crew | Jim Bolduc, Jake Brillo |
|--|--------------------------|
| Lead Scientist's Initials | JGB |
| GPS Surveyor | Jake Brillo |
| GPS ID | NA |
| Resource Series Number | 117 |
| Resource ID | S-B18-117 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-B18-117 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| - | |
|-------------------------|-----------|
| Stream / Waterbody Type | Perennial |
| Calculated Stream Score | 42.5 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Fish |
| Observed Use | Drainage |
| | |

Stream Conditions

| Water Flow Velocity | Moderate (1 - 5 cfs) |
|---------------------|----------------------|
| Direction of Flow | 5 |
| 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) | 7 |
|--------------------------|---|
| Average Water Width (ft) | 5 |

| Bank to Bank (ft) | 15 |
|---------------------|----------------|
| Bankfull Width (ft) | 15 |
| 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 | Bedrock, Cobble-Gravel, Sand, 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) | 5 |
|--------------------------|--|
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | Bedrock, 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 | |
| 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 | Strong |
| In-channel structure | Strong |
| Particle size of stream substrate | Moderate |
| Active or relict floodplain | Weak |
| Depositional bars or benches | Strong |
| Recent alluvial deposits | Strong |
| Headcuts | Absent |
| Grade control | Weak |
| | |

| Natural valley | Moderate |
|---------------------------------|----------|
| Second or greater order channel | Yes |
| Stream Geomorphology Total | 22.5 |

| 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

| Absent |
|---------------------------------------|
| Absent |
| Moderate |
| Weak |
| Strong |
| Weak |
| Moderate |
| Absent |
| Other |
| 12 |
| State Protected, Corps Jurisdictional |
| Clear flow |
| |
| |



Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

W



Across stream photo direction 2

Additional Stream Photos

Е



Sketch of Stream

6/14/2018 JEB, JB 5- B18-117-1 mP37.7 Flor NC-RO-078.000 rp 37.8 Red track · mp 37.9 · 5-818-117-1 start open to 13 · 5-818-117-18 adopen To 3 +5-318-117-19 start open TOB +5-318-117-36 ENdopen TOB SB18-117 EXTENSION 8/29/18 will Breton RO. 079.000 Kayler Towasen 078.00 -079.00-5818-117 80.040 entop

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

S-C18-71

| Created | 2018-06-13 14:07:11 EDT by Jeremy Hummel [Sabal] |
|----------|--|
| | |
| Updated | 2018-06-14 14:06:55 EDT by Sam Edmonds |
| Location | 36.2695962, -79.559506 |
| Status | Finalized & Approved |
| Client | NextEra |
| | WEATER |
| Project | MVP Southgate |
| | |

Resource Crew Info

| Field Crew | Will Buetow |
|--|--------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 71 |
| Resource ID | S-C18-71 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-71 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream inventory | |
|--|----------------|
| Stream / Waterbody Type | Perennial |
| Calculated Stream Score | 14.25 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | Frogs |
| Observed Use | Drainage |
| Stream Conditions | |
| Water Flow Velocity | Slow (< 1 cfs) |
| Direction of Flow | SE |
| 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 |
| | 0.7 |

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 | 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] | 0.6 | |
| Low poor (0.5) [Left] | 0 | |
| Left bank total | 0.6 | |
| | | |

Right Bank

| Right Bank Height (feet) | 1 |
|--------------------------|--|
| Right Bank Slope | 8 to 15% (5 to 9 deg) Moderately Sloping |
| Right Erosion Potential | High |
| 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 | |
| High poor (0.6) [Right] | 0.6 | |
| Low poor (0.5) [Right] | 0 | |
| Right bank total | 0.6 | |
| | | |

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Absent |
| 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 | Weak |
| | |

| Natural valley | Absent |
|---------------------------------|--------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 2.5 |

Stream Hydrology

| Presence of baseflow | Moderate |
|--|----------|
| Iron oxidizing bacteria | Absent |
| Leaf litter | Weak |
| Sediment on plants or debris | Weak |
| Organic debris lines or piles | Weak |
| Soil-based evidence of high water table? | No |
| Stream Hydrology Total | 4 |
| | |

Stream Biology

| Ser carri Brorogy | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Weak |
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Weak |
| Amphibians | Moderate |
| Algae | Weak |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 7.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Farm drainage, cattle |
| Stream Overview Report Photos | |



Upstream photo direction

Downstream Stream Photo

NW



Downstream photo direction

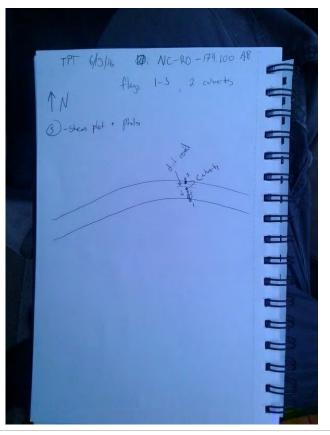


Across Stream Photo 2

SW



Across stream photo direction 2



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

| Created | 2018-05-30 16:58:16 UTC by Don Lockwood |
|----------|--|
| Updated | 2018-09-20 19:32:21 UTC by Susie Gifford (SBG) |
| Location | 36.1794446, -79.4949279 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/30 |
| Date2 | 180530 |
| | |

Resource Crew Info

| Field Crew | Donald J Lockwood |
|--|------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 1 |
| Resource ID | S-C18-1 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - I | Resource Series Number |

Stream Inventory

| , | | |
|-------------------------|-----------|--|
| Stream / Waterbody Type | Perennial | |
| Calculated Stream Score | 40.25 | |
| Calculated Stream Type | Perennial | |
| Wildlife Observed | Frogs | |
| Observed Use | Drainage | |

Stream Conditions

| Water Flow Velocity | Moderate (1 - 5 cfs) |
|---------------------|----------------------|
| Direction of Flow | S |
| Channel condition | 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) | 14 | |
|--------------------------|---------------|--|
| Average Water Width (ft) | 8 | |
| Bank to Bank (ft) | 16 | |
| Bankfull Width (ft) | 14 | |
| 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 | 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) | 5 |
|--------------------------|-----------------------------|
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Moderate |
| Right Bank Substrate | Silt-Mud, Vegetated |
| | |

Right Bank Riparian Buffer Condition

| 0 1 | | |
|-------------------------------|-----|--|
| 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 | |
| | | |

| i | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Moderate |
| Particle size of stream substrate | Moderate |
| Active or relict floodplain | Strong |
| 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 | 19.5 |
| | |

Stream Hydrology

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

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Moderate |
| Aquatic mullusks | Moderate |
| Fish | Moderate |
| Crayfish | Moderate |
| Amphibians | Moderate |
| Algae | Weak |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 12.25 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

SW



Downstream photo direction

Across Stream Photo 1

NE



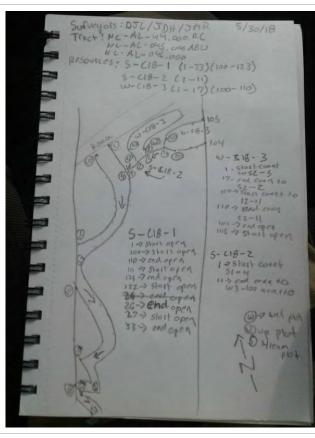
Across stream photo direction 1

W



Sketch of Stream

W



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

| Created | 2018-05-30 11:18:44 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-07 09:04:39 EDT by Sam Edmonds |
| Location | 36.1808241, -79.494298 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/30 |
| Date2 | 180530 |
| | |

Resource Crew Info

| Field Crew | Donald J Lockwood |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 2 |
| Resource ID | S-C18-2 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-2 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 19.75 |
| Calculated Stream Type | Intermittent |
| Observed Use | Drainage |

Stream Conditions

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

Channel Alteration

| Negligible (1.5) Channel Alteration | 0 | | |
|--|---|--|--|
| Low Minor (1.3) Channel Alteration | 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) | 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 | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | Low | |
| Left Bank Substrate | Silt-Mud, Organic | |

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

| 0 | |
|--------------------------|-----------------------------|
| Right Bank Height (feet) | 1 |
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Low |
| Right Bank Substrate | Silt-Mud, Organic |

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 | |
| | | |

| 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 | Absent |
| Second or greater order channel | No |
| | |

Stream Geomorphology Total

| 0 | |
|---|--|
| 0 | |

| 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? | Yes |
| Stream Hydrology Total | 4 |

Stream Biology

| 0, | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Absent |
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Weak |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 7.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

W



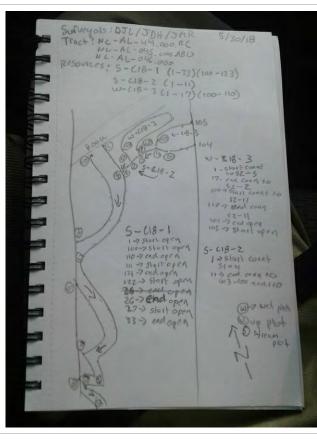
Across stream photo direction 1

S



Sketch of Stream

Ν



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

| Created | 2018-05-30 15:11:37 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-06 14:24:18 EDT by Sam Edmonds |
| Location | 36.1785084, -79.4943439 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/30 |
| Date2 | 180530 |
| | |

Resource Crew Info

| Donald J Lockwood |
|-----------------------|
| DJL |
| Joe Roy |
| 4 |
| S-C18-4 |
| Yes |
| S-C18-4 |
| esource Series Number |
| |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 15.75 |
| Calculated Stream Type | Ephemeral |

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

Left Bank

| Left Bank Height (feet) | 2 | |
|-------------------------|-----------------------------|--|
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | Low | |
| Left Bank Substrate | Organic | |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 1 | |
|--------------------------|-----------------------------|--|
| Right Bank Slope | > 35% (> 20 deg) Very Steep | |
| Right Erosion Potential | Low | |
| Right Bank Substrate | Organic | |
| | | |

Right Bank Riparian Buffer Condition

| 0 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 | |
| | | |

| 1 05 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Weak |
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | Weak |
| Particle size of stream substrate | Absent |
| Active or relict floodplain | Absent |
| Depositional bars or benches | Absent |
| Recent alluvial deposits | Absent |
| Headcuts | Weak |
| Grade control | Moderate |
| Natural valley | Absent |
| Second or greater order channel | No |
| Stream Geomorphology Total | 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 | Moderate |
| Soil-based evidence of high water table? | Yes |
| Stream Hydrology Total | 6 |

Stream Biology

| 5 | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Weak |
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 4.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Е

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

W



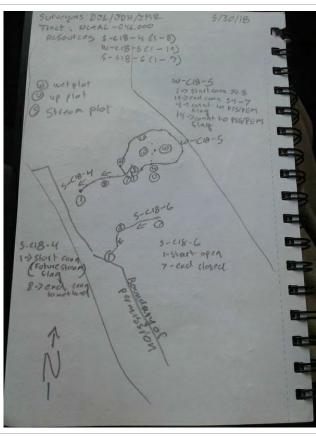
Across stream photo direction 1

S



Sketch of Stream

Ν



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

| Created | 2018-05-30 15:50:32 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-06 14:27:49 EDT by Sam Edmonds |
| Location | 36.1782892, -79.494379 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/30 |
| Date2 | 180530 |
| | |

Resource Crew Info

| Donald J Lockwood | |
|-----------------------|--|
| DJL | |
| Joe Roy | |
| 6 | |
| S-C18-6 | |
| Yes | |
| S-C18-6 | |
| esource Series Number | |
| | |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|-----------|
| Calculated Stream Score | 15.25 |
| Calculated Stream Type | Ephemeral |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | SW |
| 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) | 1 | |
|--------------------------|---|--|
| Average Water Width (ft) | 1 | |
| Bank to Bank (ft) | 1 | |
| Bankfull Width (ft) | 1 | |

| Probed Stream Depth | 0 to 6 inches | |
|-------------------------|--------------------------------|--|
| Left Bank | | |
| Left Bank Height (feet) | 1 | |
| Left Bank Slope | 25 to 35% (14 to 20 deg) Steep | |
| Left Erosion Potential | Low | |
| Left Bank Substrate | Organic | |

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

| 0 | |
|--------------------------|-----------------------------|
| Right Bank Height (feet) | 1 |
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Low |
| Right Bank Substrate | Organic |

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 | |
| | | |

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

Stream Geomorphology Total

| 5 |
|---|
| 2 |

Stream Hydrology

| Presence of baseflow | Absent |
|--|----------|
| Iron oxidizing bacteria | Absent |
| Leaf litter | Moderate |
| Sediment on plants or debris | Absent |
| Organic debris lines or piles | Absent |
| Soil-based evidence of high water table? | Yes |
| Stream Hydrology Total | 3.5 |

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

NE

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

SW



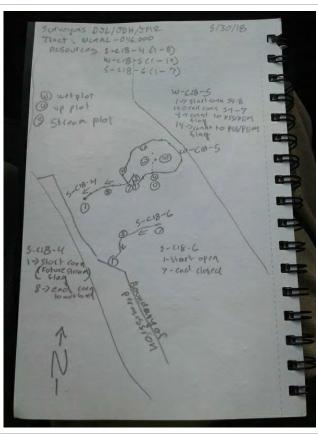
Across stream photo direction 1

Е



Sketch of Stream

W



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

| Created | 2018-05-31 09:49:04 EDT by Don Lockwood | | |
|----------|---|--|--|
| Updated | 2018-06-06 14:31:20 EDT by Sam Edmonds | | |
| Location | 36.1778972, -79.4939861 | | |
| Status | Finalized & Approved | | |
| Client | NextEra | | |
| Project | MVP Southgate | | |
| Date | 18/05/31 | | |
| Date2 | 180531 | | |
| | | | |

Resource Crew Info

| Field Crew | Donald J Lockwood | |
|--|--------------------------|--|
| Lead Scientist's Initials | DJL | |
| GPS Surveyor | Joe Roy | |
| Resource Series Number | 8 | |
| Resource ID | S-C18-8 | |
| Do you need to override the resource id? | Yes | |
| Resource ID Override | S-C18-8 | |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number | |
| | | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 22.75 |
| Calculated Stream Type | Intermittent |
| Observed Use | Drainage |

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 | 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) | 1 | |
|--------------------------|---|--|
| Average Water Width (ft) | 1 | |
| Bank to Bank (ft) | 1 | |
| Bankfull Width (ft) | 1 | |

| Probed Stream Depth | 0 to 6 inches | |
|-------------------------|--|--|
| Left Bank | | |
| Left Bank Height (feet) | 1 | |
| Left Bank Slope | 8 to 15% (5 to 9 deg) Moderately Sloping | |
| Left Erosion Potential | Low | |
| Left Bank Substrate | Silt-Mud, Organic | |

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

| 0 | |
|--------------------------|--|
| 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, Organic |

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 | |
| | | |

| 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 | Absent |
| Recent alluvial deposits | Weak |
| Headcuts | Absent |
| Grade control | Absent |
| Natural valley | Absent |
| Second or greater order channel | No |
| | |

Stream Geomorphology Total

| 0 | |
|---|--|
| õ | |

| Sacamingarology | |
|--|----------|
| Presence of baseflow | Moderate |
| 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 | 9 |

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|--|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Weak |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 5.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Likely associated with drain tile outlet |
| Stream Overview Report Photos | |

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

SE



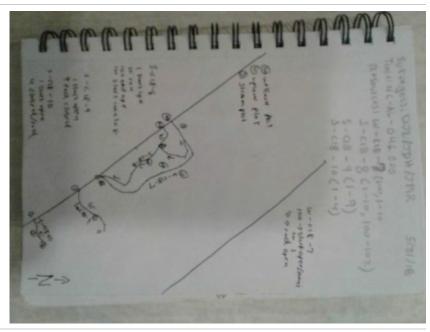
Across stream photo direction 1

Е



Sketch of Stream

W



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

| Created | 2018-05-31 10:04:25 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-07 09:05:06 EDT by Sam Edmonds |
| Location | 36.1774621, -79.4935754 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/31 |
| Date2 | 180531 |
| | |

Resource Crew Info

| Field Crew | Donald J Lockwood |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 9 |
| Resource ID | S-C18-9 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-9 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 28.25 |
| Calculated Stream Type | Intermittent |
| Observed Use | Drainage |

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 | 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) | 3 | |
|--------------------------|---|--|
| Average Water Width (ft) | 2 | |
| Bank to Bank (ft) | 5 | |
| Bankfull Width (ft) | 5 | |

| Probed Stream Depth | 0 to 6 inches | |
|-------------------------|-----------------------------|--|
| Left Bank | | |
| Left Bank Height (feet) | 4 | |
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | Moderate | |
| Left Bank Substrate | Silt-Mud | |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) 4 | |
|---|--|
| | |
| Right Bank Slope> 35% (> 20 deg) Very Steep | |
| Right Erosion Potential Moderate | |
| Right Bank Substrate Silt-Mud | |

Right Bank Riparian Buffer Condition

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

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

Stream Geomorphology Total

| Stream Hydrolo | ogv |
|----------------|-----|
|----------------|-----|

| Sacanniyarology | |
|--|----------|
| 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 |
| | |

12

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Weak |
| Aquatic mullusks | Weak |
| Fish | Weak |
| Crayfish | Weak |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 9.25 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |

Upstream Stream Photo



Upstream photo direction

NE



Downstream photo direction

Across Stream Photo 1

SW



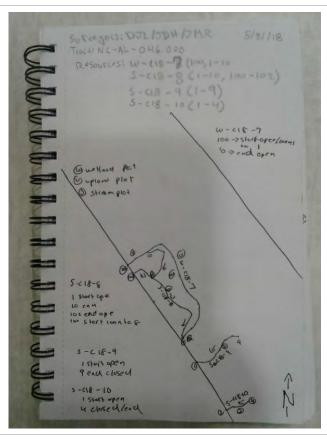
Across stream photo direction 1

Ν



Sketch of Stream

S



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

| Created | 2018-05-31 10:29:18 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-06 14:36:09 EDT by Sam Edmonds |
| Location | 36.1764511, -79.4930563 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/31 |
| Date2 | 180531 |
| | |

Resource Crew Info

| Field Crew | Donald J Lockwood |
|---|-------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 10 |
| Resource ID | S-C18-10 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-10 |
| Resource ID = Resource Type - Scientist Initials - Resource Series Number | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 19.75 |
| Calculated Stream Type | Intermittent |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | SW |
| 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) | 1 | |
|--------------------------|---|--|
| Average Water Width (ft) | 1 | |
| Bank to Bank (ft) | 1 | |
| Bankfull Width (ft) | 1 | |

| Probed Stream Depth | 0 to 6 inches | |
|-------------------------|--------------------------------|--|
| Left Bank | | |
| Left Bank Height (feet) | 1 | |
| Left Bank Slope | 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] | 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

| 0 | |
|--------------------------|--------------------------------|
| 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] | 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 | 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 | |

Stream Hydrology

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

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Weak |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 5.75 |
| 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

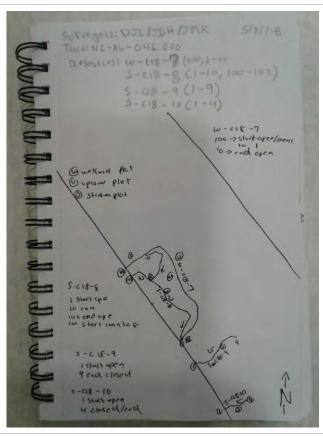
S



Across stream photo direction 2

Sketch of Stream

Ν



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

S-C18-11

| Created | 2018-05-31 13:13:10 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-08 09:56:55 EDT by Sam Edmonds |
| Location | 36.1723745, -79.4856017 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/31 |
| Date2 | 180531 |
| | |

Resource Crew Info

| Donald J Lockwood |
|------------------------|
| DJL |
| Joe Roy |
| 11 |
| S-C18-11 |
| Yes |
| S-C18-11 |
| Resource Series Number |
| |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|-----------|
| Calculated Stream Score | 31.25 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Fish |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Moderate (1 - 5 cfs) | |
|---------------------|----------------------|--|
| Direction of Flow | W | |
| Channel condition | Optimal | |
| 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) | 20 | |
|--------------------------|----|--|
| Average Water Width (ft) | 16 | |
| Bank to Bank (ft) | 30 | |

| Bankfull Width (ft) | 30 |
|---------------------|-----------------|
| Probed Stream Depth | 12 to 24 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 | Silt-Mud | |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 4 | |
|--------------------------|--------------------------------|--|
| Right Bank Slope | 25 to 35% (14 to 20 deg) Steep | |
| Right Erosion Potential | Moderate | |
| Right Bank Substrate | Silt-Mud | |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Moderate |
| Particle size of stream substrate | Moderate |
| Active or relict floodplain | Moderate |
| Depositional bars or benches | Moderate |
| Recent alluvial deposits | Moderate |
| Headcuts | Weak |
| Grade control | Absent |
| Natural valley | Absent |
| | |

| Second or greater order channel | No |
|---------------------------------|----|
| Stream Geomorphology Total | 15 |

Stream Hydrology

| 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 |

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Moderate |
| Aquatic mullusks | Weak |
| Fish | Weak |
| Crayfish | Weak |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 9.25 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |
| | |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

Ν



Across stream photo direction 2

Additional Stream Photos

S







Sketch of Stream



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

S-C18-12

| Created | 2018-05-31 13:20:39 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-08 09:57:21 EDT by Sam Edmonds |
| Location | 36.172306, -79.4857902 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/31 |
| Date2 | 180531 |
| | |

Resource Crew Info

| Field Crew | Donald J Lockwood |
|---|-------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 12 |
| Resource ID | S-C18-12 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-12 |
| Resource ID = Resource Type - Scientist Initials - Resource Series Number | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 19.75 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | Frogs |
| Observed Use | Drainage |

Stream Conditions

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

Channel Alteration

| Negligible (1.5) Channel Alteration | 0 | |
|--|---|--|
| Low Minor (1.3) Channel Alteration | 0 | |
| High Minor (1.1) Channel Alteration | 0 | |
| Low Moderate (0.9) Channel Alteration | 0 | |
| High Moderate (0.7) Channel Alteration | 0 | |
| 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) | 2 |

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

Left Bank

| Left Bank Height (feet) | 2 | |
|-------------------------|-----------------------------|--|
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | 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 | > 35% (> 20 deg) Very Steep |
| 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

| 1 07 | |
|------------------------------------|----------|
| 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 | Weak |
| Recent alluvial deposits | Absent |
| Headcuts | Weak |
| Grade control | Absent |
| Natural valley | Absent |
| | |

| Second or greater order channel | No |
|---------------------------------|----|
| Stream Geomorphology Total | 8 |

Stream Hydrology

| , | |
|--|----------|
| Presence of baseflow | Moderate |
| Iron oxidizing bacteria | Weak |
| Leaf litter | Moderate |
| 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 | Moderate |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Moderate |
| Macrobenthos | Weak |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 4.25 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |
| | |

Upstream Stream Photo



Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

Ν



Across stream photo direction 1

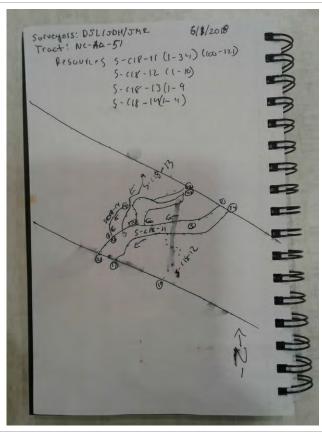
W



Across stream photo direction 2

Sketch of Stream

Е



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

S-C18-13

| Created | 2018-05-31 13:33:41 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-08 09:57:40 EDT by Sam Edmonds |
| Location | 36.1726777, -79.4858315 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/05/31 |
| Date2 | 180531 |
| | |

Resource Crew Info

| Field Crew | Donald J Lockwood |
|---|-----------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 13 |
| Resource ID | S-C18-13 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-13 |
| Resource ID = Resource Type - Scientist Initials - Re | esource Series Number |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 20.25 |
| Calculated Stream Type | Intermittent |
| 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 | 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) | 2 | |
| Bankfull Width (ft) | 2 | |

| Probed Stream Depth | 0 to 6 inches | |
|-------------------------|--------------------------------|--|
| Left Bank | | |
| Left Bank Height (feet) | 2 | |
| Left Bank Slope | 25 to 35% (14 to 20 deg) Steep | |
| Left Erosion Potential | 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

| 0 | | |
|--------------------------|-----------------------------|--|
| Right Bank Height (feet) | 2 | |
| Right Bank Slope | > 35% (> 20 deg) Very Steep | |
| Right Erosion Potential | Low | |
| Right Bank Substrate | Silt-Mud | |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

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

Stream Geomorphology Total

| 7 | |
|---|--|
| | |

Stream Hydrology

| Presence of baseflow | Weak |
|--|----------|
| Iron oxidizing bacteria | Moderate |
| Leaf litter | Moderate |
| 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

| 0, | | |
|-----------------------------------|---------------------------------------|--|
| Fibrous roots in streambed | Weak | |
| Rooted upland plants in streambed | Weak | |
| Macrobenthos | Weak | |
| Aquatic mullusks | Absent | |
| Fish | Absent | |
| Crayfish | Absent | |
| Amphibians | Absent | |
| Algae | Absent | |
| Wetland plants in streambed | FACW | |
| Stream Biology Total | 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

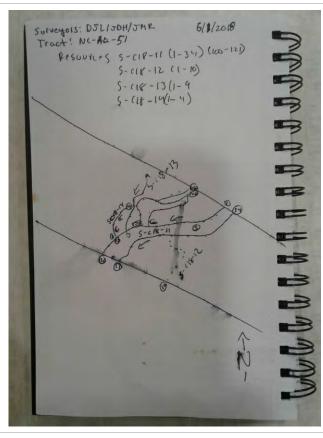
SE



Across stream photo direction 2

Sketch of Stream

NW



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

S-C18-14

| Created | 2018-05-31 14:06:35 EDT by Don Lockwood | | |
|----------|---|--|--|
| Updated | 2018-06-08 09:58:04 EDT by Sam Edmonds | | |
| Location | 36.1724989, -79.4862239 | | |
| Status | Finalized & Approved | | |
| Client | NextEra | | |
| Project | MVP Southgate | | |
| Date | 18/05/31 | | |
| Date2 | 180531 | | |

Resource Crew Info

| Donald J Lockwood | | |
|--|--|--|
| DJL | | |
| Joe Roy | | |
| 14 | | |
| S-C18-14 | | |
| Do you need to override the resource id? Yes | | |
| S-C18-14 | | |
| Resource Series Number | | |
| | | |

Stream Inventory

| Stream / Waterbody Type | Intermittent | |
|-------------------------|--------------|--|
| Calculated Stream Score | 14.25 | |
| Calculated Stream Type | Ephemeral | |

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 | |
| | | |

Stream Measurements

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

Left Bank

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

Right Bank Riparian Buffer Condition

| 0 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

| Continuity of channel bed and bank | Weak |
|------------------------------------|--------|
| Sinuosity of channel along thalweg | Absent |
| 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 | Absent |
| Second or greater order channel | No |
| Stream Geomorphology Total | 1 |
| | |

Stream Hydrology

| Weak |
|----------|
| Strong |
| Moderate |
| Absent |
| Absent |
| Yes |
| 7.5 |
| |

Stream Biology

| Stream Bronogy | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Weak |
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Weak |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 5.75 |
| 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

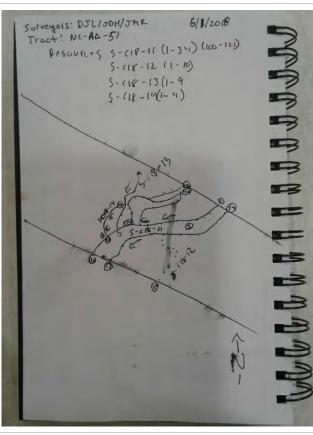
W



Across stream photo direction 2

Sketch of Stream

Е



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

S-C18-15

| Created | 2018-06-01 13:35:04 UTC by Don Lockwood |
|----------|---|
| Updated | 2018-08-04 21:42:28 UTC by Laura Giese |
| Location | 36.2480365, -79.5392892 |
| Status | Field Crew Collected |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/01 |
| Date2 | 180601 |

Resource Crew Info

| Field Crew | Donald J Lockwood |
|---|-------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 15 |
| Resource ID | S-C18-15 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-15 |
| Resource ID = Resource Type - Scientist Initials - Resource Series Number | |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|--------------|
| Calculated Stream Score | 27.25 |
| Calculated Stream Type | Intermittent |
| Observed Use | Drainage |

Stream Conditions

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

Channel Alteration

| 0 | |
|---|-----------------------|
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| | 0 0 0 0 0 |

Stream Measurements

| OHWM Width (ft) | 3 |
|--------------------------|---|
| Average Water Width (ft) | 3 |
| Bank to Bank (ft) | 4 |

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

Left Bank

| Left Bank Height (feet) | 2 | |
|-------------------------|--------------------------------|--|
| Left Bank Slope | 25 to 35% (14 to 20 deg) Steep | |
| Left Erosion Potential | Low | |
| Left Bank Substrate | Cobble-Gravel | |

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 | 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] | 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

| 1 07 | |
|------------------------------------|----------|
| 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 | Moderate |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Absent |
| Headcuts | Absent |
| Grade control | Absent |
| Natural valley | Absent |
| | |

| Second or greater order channel | No |
|---------------------------------|----|
| Stream Geomorphology Total | 10 |

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

| ted, Corps Jurisdictional |
|---------------------------|
| |
| |

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

W



Across stream photo direction 2

Additional Stream Photos

W



EXT UP



EXT DN



EXT across by flag 25

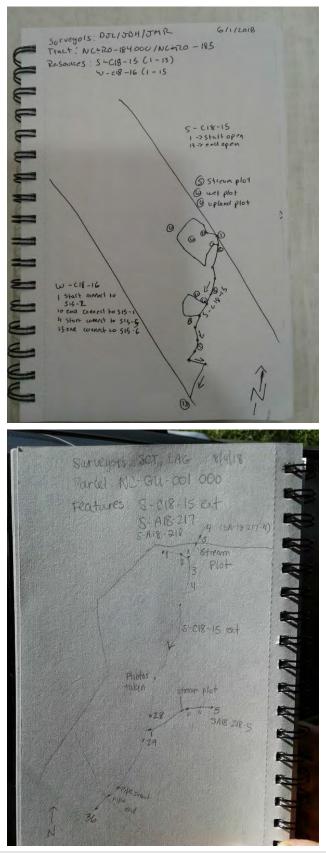


down stream of access rd UP



dnstream of access rd DN

Sketch of Stream



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

WB-C18-19

| Created | 2018-06-01 14:02:44 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-15 09:51:54 EDT by Sam Edmonds |
| Location | 36.2564846, -79.5458218 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/01 |
| Date2 | 180601 |
| | |

Resource Crew Info

| Field Crew | Jeremy Hummel |
|--|--------------------------|
| Lead Scientist's Initials | JDH |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 19 |
| Resource ID | WB-C18-19 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | WB-C18-19 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Impoundment |
|-------------------------|-------------|
| Calculated Stream Score | 14.75 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | Turtles |
| Observed Use | Drainage |

Stream Conditions

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

Channel Alteration

| charmer / accrucion | | |
|--|---|--|
| 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 | | | | |
|-------------------------------------|--------------------------|--------------------|----------------------|----------------------|
| 0 | | | | |
| 0 | | | | |
| | l ition 0 0 | l ition 0 0 | l ition 0 0 0 | l ition 0 0 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

| Presence of baseflow | Moderate |
|--|----------|
| Iron oxidizing bacteria | Moderate |
| 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

| Macrobenthos | Moderate |
|-------------------------------|---|
| Fish | Moderate |
| Crayfish | Moderate |
| Amphibians | Moderate |
| Algae | Weak |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 6.25 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Beaver dam at West end; farm access road at Eastern end |
| Stream Overview Report Photos | |
| | |



Upstream photo direction

Downstream Stream Photo

Е



Downstream photo direction

W



Across stream photo direction 1

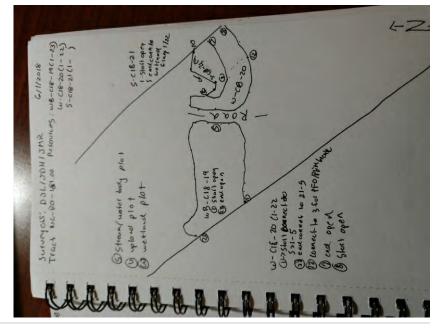
Across Stream Photo 2

Ν



Across stream photo direction 2

SW



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

S-C18-21

| Created | 2018-06-27 12:56:20 UTC by Will Buetow |
|----------|--|
| Updated | 2018-07-11 14:40:35 UTC by Susie Gifford (SBG) |
| Location | 36.2565821, -79.5453974 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/27 |
| Date2 | 180627 |
| | |

Resource Crew Info

| Field Crew | Simon King, Susan Thebert |
|--|---------------------------|
| Lead Scientist's Initials | C18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 21 |
| Resource ID | S-C18-21 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|-----------|
| Calculated Stream Score | 39.5 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Turtles |

Stream Conditions

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

Channel Alteration

| Negligible (1.5) Channel Alteration | 0 |
|--|-----------------|
| Low Minor (1.3) Channel Alteration | 0 |
| High Minor (1.1) Channel Alteration | 0 |
| Low Moderate (0.9) Channel Alteration | 0 |
| High Moderate (0.7) Channel Alteration | 0 |
| Severe (0.5) Channel Alteration | 0 |
| Channel Alteration Total | 0 |
| Stream Measurements | |
| OHWM Width (ft) | 7 |
| Average Water Width (ft) | 6 |
| Bank to Bank (ft) | 10 |
| Bankfull Width (ft) | 11 |
| Probed Stream Depth | 24 to 36 inches |
| | |

Left Bank

| Left Bank Height (feet) | 5 | |
|-------------------------|-----------------------------|--|
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | Moderate | |
| Left Bank Substrate | Mud or muck, Vegetated | |

Left Bank Riparian Buffer Condition

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

Right Bank

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

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

| 1 02 | |
|------------------------------------|----------|
| 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 | Moderate |
| Depositional bars or benches | Moderate |
| Recent alluvial deposits | Moderate |
| Headcuts | Weak |
| Grade control | Weak |
| Natural valley | Weak |
| Second or greater order channel | Yes |
| Stream Geomorphology Total | 21 |
| | |

Stream Hydrology

| Presence of baseflow | Moderate |
|--|----------|
| Iron oxidizing bacteria | Weak |
| 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 | 5.5 |

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Weak |
| Aquatic mullusks | Strong |
| Fish | Moderate |
| Crayfish | Weak |
| Amphibians | Strong |
| Algae | Moderate |
| Wetland plants in streambed | Other |
| Stream Biology Total | 13 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| | |

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



Across stream photo direction 2

S

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

S-C18-22

| Created | 2018-06-02 10:26:08 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-06 15:05:53 EDT by Sam Edmonds |
| Location | 36.2578996, -79.5466562 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/02 |
| Date2 | 180602 |
| | |

Resource Crew Info

| Field Crew | Jeremy Hummel |
|--|--------------------------|
| Lead Scientist's Initials | JDH |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 22 |
| Resource ID | S-C18-22 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-22 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 18.25 |
| Calculated Stream Type | Ephemeral |
| 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 | | |
| | | | |

Stream Measurements

| OHWM Width (ft) | 3 | |
|--------------------------|---|--|
| Average Water Width (ft) | 3 | |
| 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 | 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

| 0 | |
|--------------------------|--------------------------------|
| 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] | 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 | Weak |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Absent |
| Headcuts | Absent |
| Grade control | Absent |
| Natural valley | Absent |
| Second or greater order channel | No |
| | |

Stream Geomorphology Total

Stream Hydrology

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

7

Stream Biology

| Weak |
|---------------------------------------|
| Weak |
| Absent |
| FACW |
| 4.75 |
| State Protected, Corps Jurisdictional |
| |
| |

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1



Across stream photo direction 1

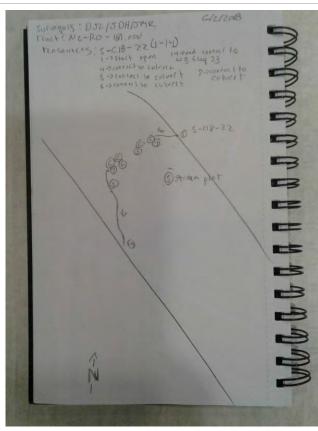
W



Across stream photo direction 2

Sketch of Stream

Е



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

S-C18-23

| Created | 2018-06-02 11:20:54 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-06 15:10:04 EDT by Sam Edmonds |
| Location | 36.2629331, -79.5505605 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/02 |
| Date2 | 180602 |

Resource Crew Info

| Field Crew | Jeremy Hummel |
|--|--------------------------|
| Lead Scientist's Initials | JDH |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 23 |
| Resource ID | S-C18-23 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-23 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|-----------|
| Calculated Stream Score | 9.5 |
| Calculated Stream Type | Ephemeral |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Fast (> 5 cfs) |
|---------------------|----------------|
| Direction of Flow | NW |
| Channel condition | Suboptimal |
| In stream habitat | Suboptimal |

Channel Alteration

| Negligible (1.5) Channel Alteration | 0 | |
|--|---|--|
| Low Minor (1.3) Channel Alteration | 0 | |
| High Minor (1.1) Channel Alteration | 0 | |
| Low Moderate (0.9) Channel Alteration | 0 | |
| High Moderate (0.7) Channel Alteration | 0 | |
| 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) | 3 | |
| Bankfull Width (ft) | 3 | |

| 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 | |

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

| 5 | |
|--------------------------|--------------------------------|
| Right Bank Height (feet) | 3 |
| 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

| 0 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

| 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 | Absent |
| Second or greater order channel | No |
| | |

Stream Geomorphology Total

Stream Hydrology

| Sacamingarology | |
|--|----------|
| 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 |

5

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 4 |
| 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

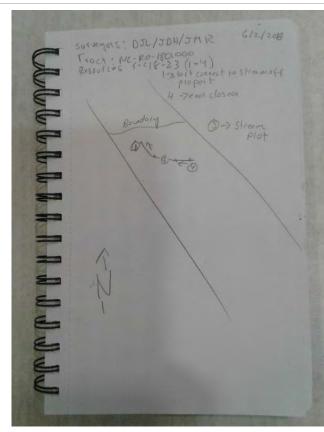
W



Across stream photo direction 2

Sketch of Stream

Е



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

WB-C18-24

| Created | 2018-06-02 16:19:03 UTC by Don Lockwood |
|-------------------|--|
| Updated | 2018-09-20 19:36:31 UTC by Susie Gifford (SBG) |
| Location | 36.2551895, -79.544059 |
| Status | Finalized & Approved |
| | |
| Client | NextEra |
| Client Project | NextEra MVP Southgate |
| | |

Resource Crew Info

| Jeremy Hummel |
|-----------------------|
| JDH |
| Joe Roy |
| 24 |
| WB-C18-24 |
| Yes |
| WB-C18-24 |
| esource Series Number |
| |

Stream Inventory

| Stream / Waterbody Type | Pond |
|-------------------------|--------------------------|
| Calculated Stream Score | 0 |
| Calculated Stream Type | Undetermined |
| Wildlife Observed | American bittern; turtle |

Stream Conditions

| 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

Left Bank

Left Bank Riparian Buffer Condition

| 0 | |
|---|------------------|
| 0 | |
| 0 | |
| 0 | |
| | 0 0 0 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 Cor | ndition |
|--|---------------------------------------|
| 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 |
| Notes | Embankment pond (northend) |
| | |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

Ν



Across stream photo direction 1

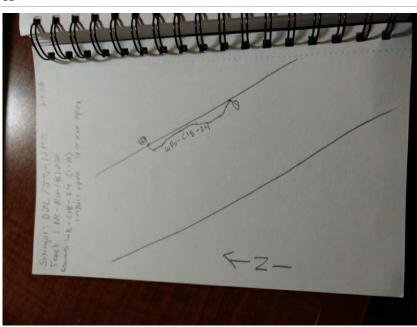
Е



Across stream photo direction 2

Additional Stream Photos

SE



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

S-C18-25

| Created | 2018-06-02 16:53:48 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-07 09:01:35 EDT by Sam Edmonds |
| Location | 36.3424923, -79.6057245 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/02 |
| Date2 | 180602 |
| | |

Resource Crew Info

| Field Crew | Joe Roy, Donald Lockwood |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 25 |
| Resource ID | S-C18-25 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-25 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|-----------------------------|
| Calculated Stream Score | 30.25 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | None |
| Observed Use | Fishing, Drinking, Drainage |

Stream Conditions

| Water Flow Velocity | Slow (< 1 cfs) |
|---------------------|----------------|
| Direction of Flow | W |
| Channel condition | Optimal |
| 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) | 4 | |
|--------------------------|---|--|
| 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) | 4 | |
|-------------------------|---|--|
| Left Bank Slope | 15 to 25% (9 to 14 deg) Steeply Sloping | |
| Left Erosion Potential | Low | |
| Left Bank Substrate | Organic, 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 | 15 to 25% (9 to 14 deg) Steeply Sloping | |
| Right Erosion Potential | Low | |
| Right Bank Substrate | Organic, 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

| 1 07 | |
|------------------------------------|----------|
| 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 | Absent |
| Headcuts | Weak |
| Grade control | Moderate |
| Natural valley | Moderate |
| | |

| Second or greater order channel | Yes |
|---------------------------------|-----|
| Stream Geomorphology Total | 14 |

Stream Hydrology

| Weak |
|------|
| Weak |
| Weak |
| Weak |
| Weak |
| Yes |
| 7 |
| |

Stream Biology

| t |
|---------------------------------|
| |
| |
| |
| |
| |
| t |
| |
| |
| Protected, Corps Jurisdictional |
| |
| 1 |

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

NW



Across stream photo direction 1

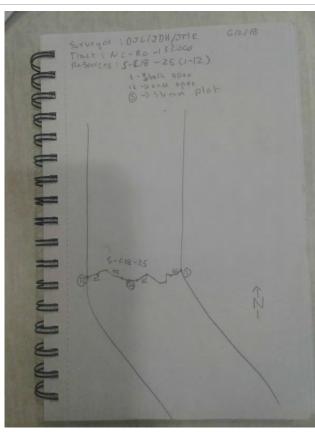
W



Across stream photo direction 2

Sketch of Stream

Е



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

S-C18-27

| Created | 2018-06-02 20:08:09 UTC by Don Lockwood |
|----------|--|
| Updated | 2018-09-20 19:33:29 UTC by Susie Gifford (SBG) |
| Location | 36.3467017, -79.605876 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/02 |
| Date2 | 180602 |

Resource Crew Info

| Field Crew | Jeremy Hummel |
|--|--------------------------|
| Lead Scientist's Initials | JDH |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 27 |
| Resource ID | S-C18-27 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-27 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|-----------|
| Calculated Stream Score | 8.5 |
| Calculated Stream Type | Ephemeral |
| Observed Use | Drainage |

Stream Conditions

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

Channel Alteration

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

Stream Measurements

| OHWM Width (ft) | 2 | |
|--------------------------|---|--|
| Average Water Width (ft) | 2 | |
| 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 | > 35% (> 20 deg) Very Steep | | |
| 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

| 0 | |
|--------------------------|--------------------------------|
| Right Bank Height (feet) | 3 |
| 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] | 0 | |
|-------------------------------|---|--|
| High suboptimal (1.2) [Right] | 0 | |
| Low suboptimal (1.1) [Right] | 0 | |
| High marginal (0.85) [Right] | 0 | |
| Low marginal (0.75) [Right] | 0 | |
| High poor (0.6) [Right] | 0 | |
| Low poor (0.5) [Right] | 0 | |
| Right bank total | 0 | |
| | | |

Stream Geomorphology

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

Stream Geomorphology Total

| 4 | |
|---|--|

Stream Hydrology

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

Stream Biology

| Weak |
|---------------------------------------|
| Weak |
| Absent |
| Other |
| 4 |
| State Protected, Corps Jurisdictional |
| |
| - |

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

Ν



Across stream photo direction 1

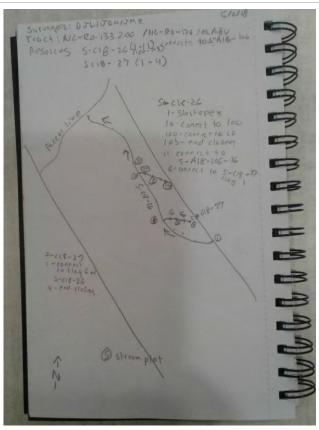
NE



Across stream photo direction 2

Sketch of Stream

SW



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

S-C18-28

| Created | 2018-06-04 12:57:34 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-07 09:00:17 EDT by Sam Edmonds |
| Location | 36.1606257, -79.4536633 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/04 |
| Date2 | 180604 |
| | |

Resource Crew Info

| Field Crew | Joe Roy, Donald Lockwood |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 28 |
| Resource ID | S-C18-28 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-28 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|---------------|
| 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 | SW |
| Channel condition | Optimal |
| In stream habitat | Optimal |

Channel Alteration

| 0 | |
|-----|-----------------------|
| 1.3 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 1.3 | |
| | 0 0 0 0 0 |

Stream Measurements

| OHWM Width (ft) | 3 |
|--------------------------|---|
| Average Water Width (ft) | 2 |
| Bank to Bank (ft) | 4 |

| Bankfull Width (ft) | 3 |
|---------------------|---------------|
| Probed Stream Depth | 0 to 6 inches |

Left Bank

| Leite Burnt | | |
|-------------------------|--------------------------------|--|
| 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, Organic, 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 | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | Low |
| Right Bank Substrate | Silt-Mud, Organic, Vegetated |

Right Bank Riparian Buffer Condition

| 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

| 1 07 | |
|------------------------------------|----------|
| 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 | Moderate |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Absent |
| Headcuts | Weak |
| Grade control | Moderate |
| Natural valley | Moderate |
| | |

| Second or greater order channel | No |
|---------------------------------|----|
| Stream Geomorphology Total | 10 |

Stream Hydrology

| Weak |
|--------|
| Weak |
| Weak |
| Weak |
| Absent |
| Yes |
| 6.5 |
| |

Stream Biology

Upstream Stream Photo



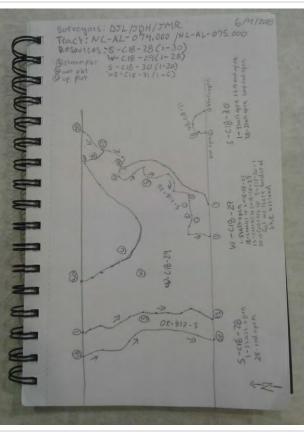
Downstream Stream Photo



Across Stream Photo 1



Sketch of Stream



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

S-C18-30

| Created | 2018-06-04 13:31:36 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-07 18:30:04 EDT by Sam Edmonds |
| Location | 36.1607265, -79.4548756 |
| Status | Finalized & Approved |
| Client | NextEra |
| | |
| Project | MVP Southgate |
| Date | MVP Southgate 18/06/04 |

Resource Crew Info

| Field Crew | Jeremy Hummel | |
|--|--------------------------|--|
| Lead Scientist's Initials | JDH | |
| GPS Surveyor | Joe Roy | |
| GPS ID | NA | |
| Resource Series Number | 30 | |
| Resource ID | S-C18-30 | |
| Do you need to override the resource id? | Yes | |
| Resource ID Override S-C18-30 | | |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number | |
| | | |

Stream Inventory

| Calculated Stream Score | 29.75 |
|-------------------------|--------------|
| Calculated Stream Type | Intermittent |
| Wildlife Observed | Frogs |
| Observed Use | Drainage |

Stream Conditions

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

Channel Alteration

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

Stream Measurements

| OHWM Width (ft) | 8 |
|--------------------------|---|
| 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) | 5 |
|-------------------------|--------------------------------|
| Left Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Left Erosion Potential | Moderate |
| Left Bank Substrate | Silt-Mud |

Left Bank Riparian Buffer Condition

| | â | |
|------------------------------|---|--|
| Optimal (1.5) [Left] | 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 | |
| Left bank total | 0 | |
| | | |

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 |

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 | | | | |
|---|-------------------------------|---|--|--|
| 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 | 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 | High suboptimal (1.2) [Right] | 0 | | |
| Low marginal (0.75) [Right] 0 High poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 | Low suboptimal (1.1) [Right] | 0 | | |
| High poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 | High marginal (0.85) [Right] | 0 | | |
| Low poor (0.5) [Right] 0 | Low marginal (0.75) [Right] | 0 | | |
| | High poor (0.6) [Right] | 0 | | |
| | Low poor (0.5) [Right] | 0 | | |
| Right bank total U | 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 | Moderate |
| Active or relict floodplain | Moderate |
| Depositional bars or benches | Moderate |
| Recent alluvial deposits | Weak |
| Headcuts | Weak |
| Grade control | Weak |
| | |

| Natural valley | Absent |
|---------------------------------|--------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 14.5 |

Stream Hydrology

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

Stream Biology

| 0, | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Moderate |
| Rooted upland plants in streambed | Moderate |
| Macrobenthos | Moderate |
| Aquatic mullusks | Weak |
| Fish | Weak |
| Crayfish | Weak |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 7.25 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |

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

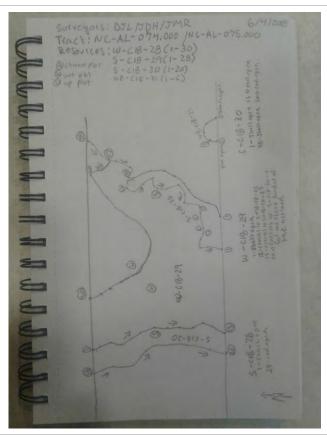
Е



Across stream photo direction 2

Sketch of Stream

W



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

WB-C18-31

| Created | 2018-06-04 19:03:54 UTC by Don Lockwood |
|----------|--|
| Updated | 2018-09-20 19:36:45 UTC by Susie Gifford (SBG) |
| Location | 36.1602501, -79.4503317 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/04 |
| Date2 | 180604 |

Resource Crew Info

| Field Crew | Jeremy Hummel |
|--|---------------|
| Lead Scientist's Initials | JDH |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 31 |
| Resource ID | WB-C18-31 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | WB-C18-31 |

Stream Inventory

| Stream / Waterbody Type | Pond |
|-------------------------|------------|
| Calculated Stream Score | 1 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | Frogs |
| Observed Use | Irrigation |

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

| 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 Hydrology

| , 0, | | |
|------------------------|---|--|
| Stream Hydrology Total | 0 | |
| | | |

Stream Biology

| Regulatory Status | State Protected, Corps Jurisdictional | |
|----------------------|---------------------------------------|--|
| Stream Biology Total | 1 | |
| Amphibians | Moderate | |

Stream Overview Report Photos

Upstream Stream Photo



Downstream Stream Photo



Downstream photo direction

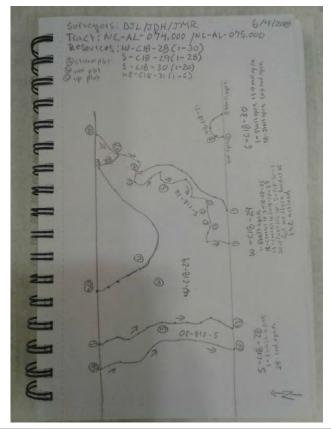
Across Stream Photo 1

S



Across stream photo direction 1

S



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

WB-C18-32

| Created | 2018-06-04 19:33:44 UTC by Don Lockwood |
|----------|--|
| Updated | 2018-09-20 19:37:06 UTC by Susie Gifford (SBG) |
| Location | 36.1631472, -79.4481967 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/04 |
| Date2 | 180604 |

Resource Crew Info

| Field Crew | Jeremy Hummel |
|--|--------------------------|
| Lead Scientist's Initials | JDH |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 32 |
| Resource ID | WB-C18-32 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | WB-C18-32 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Pond |
|-------------------------|------------|
| Calculated Stream Score | 3.25 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | Frogs |
| Observed Use | Irrigation |

Stream Conditions

| Direction of Flow | SW |
|-------------------|----------|
| 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 | |
| | | |

Stream Measurements

Left Bank

| Left Bank Riparian Buffer Condition | | | | |
|-------------------------------------|--------------------|--------------------|----------------------|----------------------|
| 0 | | | | |
| 0 | | | | |
| | l ition 0 0 | l ition 0 0 | l ition 0 0 0 | l ition 0 0 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

| 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 | |
| Charles I had a la su | | |
| Stream Hydrology | - | |
| Stream Hydrology Total | 0 | |
| Stream Biology | | |
| Fish | Moderate | |
| Amphibians | Strong | |
| Wetland plants in streambed | FACW | |
| Stream Biology Total | 3.25 | |
| Regulatory Status | State Protected, Corps Jurisdictional | |



Upstream photo direction

Downstream Stream Photo

W



Downstream photo direction

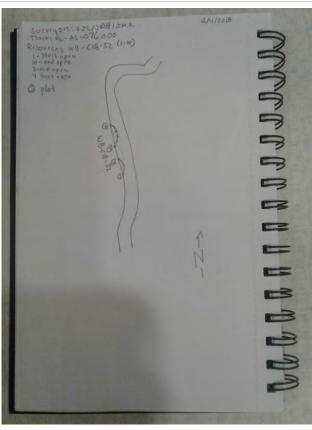
S



Across stream photo direction 1

Sketch of Stream

SW



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

WB-C18-33

| Created | 2018-06-04 20:01:24 UTC by Don Lockwood |
|----------|--|
| Updated | 2018-09-20 19:37:26 UTC by Susie Gifford (SBG) |
| Location | 36.1638266, -79.4532265 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/04 |
| Date2 | 180604 |
| | |

Resource Crew Info

| Jeremy Hummel | |
|---|--|
| JDH | |
| Joe Roy | |
| 33 | |
| WB-C18-33 | |
| Yes | |
| WB-C18-33 | |
| Resource ID = Resource Type - Scientist Initials - Resource Series Number | |
| - | |

Stream Inventory

| Stream / Waterbody Type | Pond |
|-------------------------|--------------|
| Calculated Stream Score | 0 |
| Calculated Stream Type | Undetermined |
| Wildlife Observed | Frogs |

Stream Conditions

| Direction of Flow | S | |
|--|---|--|
| Channel Alteration | | |
| Negligible (1.5) Channel Alteration | 0 | |
| Low Minor (1.3) Channel Alteration | 0 | |
| High Minor (1.1) Channel Alteration | 0 | |
| Low Moderate (0.9) Channel Alteration | 0 | |
| High Moderate (0.7) Channel Alteration | 0 | |
| Severe (0.5) Channel Alteration | 0 | |
| Channel Alteration Total | 0 | |

Stream Measurements

Left Bank

Left Bank Riparian Buffer Condition

| 0 | |
|---|------------------|
| 0 | |
| 0 | |
| 0 | |
| | 0 0 0 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 Cor | ndition | |
|--------------------------------|---------|--|
| 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



Downstream photo direction

Across Stream Photo 1

S





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

S-C18-34

| Created | 2018-06-05 10:37:10 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-25 10:53:04 EDT by Sam Edmonds |
| Location | 36.430429, -79.6686556 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/05 |
| Date2 | 180605 |
| | |

Resource Crew Info

| Field Crew | Jeremy Hummel |
|--|--------------------------|
| Lead Scientist's Initials | JDH |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 34 |
| Resource ID | S-C18-34 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-34 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 15 |
| Calculated Stream Type | Ephemeral |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | NE |
| 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 | |

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) | 5 | |
|-------------------------|-----------------------------|--|
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | Moderate | |
| Left Bank Substrate | Cobble-Gravel | |

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) | 5 | | |
|--------------------------|-----------------------------|-----------------------------|--|
| Right Bank Slope | > 35% (> 20 deg) Very Steep | > 35% (> 20 deg) Very Steep | |
| Right Erosion Potential | Moderate | | |
| Right Bank Substrate | Cobble-Gravel | Cobble-Gravel | |

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 Hydrology

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

Stream Biology

| Weak | |
|---------------------------------------|--|
| Absent | |
| Other | |
| 5 | |
| State Protected, Corps Jurisdictional | |
| Additional flags for extension 1-7 | |
| | |
| | |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

NE



Across stream photo direction 1

W



Across stream photo direction 2

Additional Stream Photos

Е



Upstream



Downstream



Across

Sketch of Stream

SUTVEYOR JMRIDIL TRACT: NC-RO-OGICO/NC-RO-BSE 615/2016 S-C18-34 1 stort open 3 and closed 5-C18-35 1-Start connt to culor too. Start connel to cu 3 End apen 106 ence open 5-018-30 -1 start closed 9 end open 6/21/18 LAG, SCT, JJB 0 NC-RO-061.000 11 WB-A18-173 5- C18-34 extension WB-A18-173 .7 Extension C18-34 extension

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

S-C18-35

| Created | 2018-06-05 15:29:03 UTC by Don Lockwood | |
|-------------------|---|--|
| | | |
| Updated | 2018-08-28 23:53:01 UTC by Simon King | |
| Location | 36.4333497, -79.6707577 | |
| Status | Finalized & Approved | |
| | NextEra | |
| Client | NextEra | |
| Client Project | NextEra MVP Southgate | |
| | | |

Resource Crew Info

| Field Crew | Jeremy Hummel | |
|--|--------------------------|--|
| Lead Scientist's Initials | JDH | |
| GPS Surveyor | Joe Roy | |
| GPS ID | NA | |
| Resource Series Number | 35 | |
| Resource ID | S-C18-35 | |
| Do you need to override the resource id? | Yes | |
| Resource ID Override | S-C18-35 | |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number | |
| | | |

Stream Inventory

| Stream / Waterbody Type | Perennial | |
|-------------------------|--------------|--|
| Calculated Stream Score | 29.75 | |
| Calculated Stream Type | Intermittent | |
| Wildlife Observed | box turtle | |
| Observed Use | Drainage | |
| | | |

Stream Conditions

| Water Flow Velocity | Moderate (1 - 5 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 | 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) | 12 |
|--------------------------|----|
| Average Water Width (ft) | 6 |

| Bank to Bank (ft) | 15 |
|---------------------|---------------|
| Bankfull Width (ft) | 15 |
| Probed Stream Depth | 0 to 6 inches |

Left Bank

| Left Bank Height (feet) | 5 |
|-------------------------|--------------------------------|
| Left Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Left Erosion Potential | Moderate |
| Left Bank Substrate | Cobble-Gravel |

Left Bank Riparian Buffer Condition

| | â | |
|------------------------------|---|--|
| Optimal (1.5) [Left] | 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 | |
| Left bank total | 0 | |
| | | |

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 | Cobble-Gravel |

Right Bank Riparian Buffer Condition

| 0 | |
|---|----------------------------|
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| | 0 0 0 0 0 0 |

Stream Geomorphology

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | Moderate |
| Particle size of stream substrate | Moderate |
| Active or relict floodplain | Weak |
| Depositional bars or benches | Moderate |
| Recent alluvial deposits | Weak |
| Headcuts | Weak |
| Grade control | Absent |
| | |

| Natural valley | Absent |
|---------------------------------|--------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 12 |

Stream Hydrology

| Presence of baseflow | Moderate |
|--|----------|
| Iron oxidizing bacteria | Moderate |
| 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 | 9.5 |

Stream Biology

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



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

W



Across stream photo direction 2

Sketch of Stream

Е



a a a a a a a a a a a a a a a a a NC-RO-060,000 S-C-18-35 extension S-C18-36 extension 5-018-36 5-A18-36

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

S-C18-38

| Created | 2018-06-06 16:02:05 UTC by Don Lockwood |
|----------|---|
| Updated | 2018-09-26 14:18:53 UTC by Simon King |
| Location | 36.4460406, -79.6893099 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/06 |
| Date2 | 180606 |
| | |

Resource Crew Info

| Field Crew | Joe Roy, Donald Lockwood |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 38 |
| Resource ID | S-C18-38 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-38 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial | |
|-------------------------|-----------|--|
| Calculated Stream Score | 30.5 | |
| 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 | 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) | 10 |
|--------------------------|----|
| Average Water Width (ft) | 8 |

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

Left Bank

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

Left Bank Riparian Buffer Condition

| | â | |
|------------------------------|---|--|
| Optimal (1.5) [Left] | 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 | |
| Left bank total | 0 | |
| | | |

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 |

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

| 1 07 | |
|------------------------------------|----------|
| 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 | Moderate |
| Headcuts | Absent |
| Grade control | Absent |
| | |

| Natural valley | Absent |
|---------------------------------|--------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 14 |

Stream Hydrology

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

Stream Biology

| 0, | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Moderate |
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Moderate |
| Aquatic mullusks | Weak |
| Fish | Moderate |
| Crayfish | Weak |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 8 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

NE



Across stream photo direction 1

W



Across stream photo direction 2

Additional Stream Photos

Е

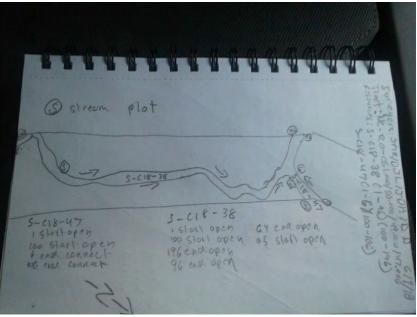


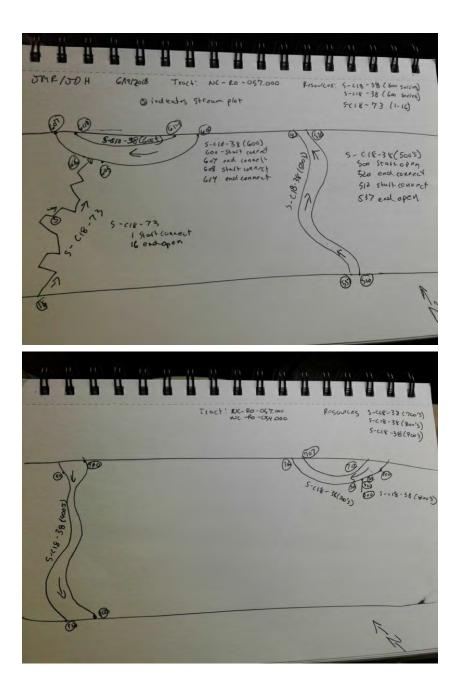


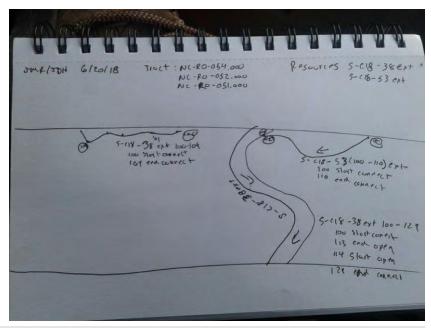




Sketch of Stream







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

S-C18-39

| Created | 2018-06-06 11:46:33 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-25 10:13:09 EDT by Sam Edmonds |
| Location | 36.4457432, -79.6893138 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/06 |
| Date2 | 180606 |
| | |

Resource Crew Info

| Field Crew | Joe Roy, Donald Lockwood |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 39 |
| Resource ID | S-C18-39 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-39 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent | |
|-------------------------|----------------|--|
| Calculated Stream Score | 17 | |
| Calculated Stream Type | Ephemeral | |
| Wildlife Observed | None | |
| Observed Use | Drainage | |
| Stream Conditions | | |
| Water Flow Velocity | Dry or Minimal | |

| Direction of Flow | NE | |
|-------------------|----------|--|
| 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 | |

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) | 3 | |
|-------------------------|-----------------------------|--|
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| 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) | 3 |
|--------------------------|--------------------------------|
| 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] 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 | | | | |
|---|-------------------------------|---|--|--|
| 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 | 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 | High suboptimal (1.2) [Right] | 0 | | |
| Low marginal (0.75) [Right] 0 High poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 | Low suboptimal (1.1) [Right] | 0 | | |
| High poor (0.6) [Right] 0 Low poor (0.5) [Right] 0 | High marginal (0.85) [Right] | 0 | | |
| Low poor (0.5) [Right] 0 | Low marginal (0.75) [Right] | 0 | | |
| | High poor (0.6) [Right] | 0 | | |
| | Low poor (0.5) [Right] | 0 | | |
| Right bank total U | Right bank total | 0 | | |

Stream Geomorphology

| 1 07 | |
|------------------------------------|----------|
| 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 | Absent |
|---------------------------------|--------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 6 |

Stream Hydrology

| , 0, | |
|--|----------|
| Presence of baseflow | Weak |
| 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 | 8 |
| Stream Hydrology Total | 8 |

Stream Biology

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

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

Е



Across stream photo direction 1

Ν

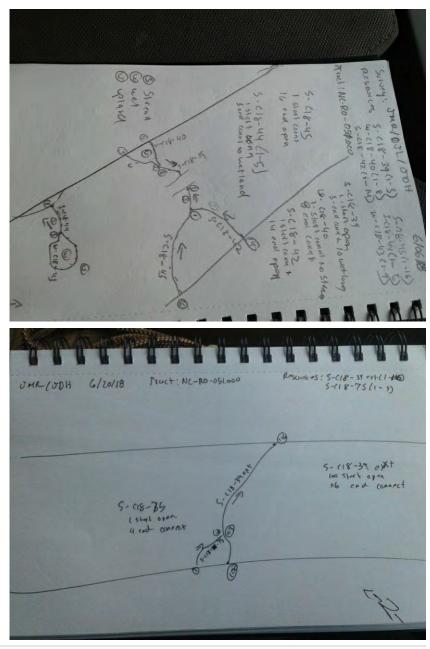
Across Stream Photo 2



Across stream photo direction 2

S





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

S-C18-41

| Created | 2018-06-06 12:32:12 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-08 10:00:24 EDT by Sam Edmonds |
| Location | 36.4470512, -79.689248 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/06 |
| | |
| Date2 | 180606 |

Resource Crew Info

| Joe Roy, Donald Lockwood |
|--------------------------|
| DJL |
| Joe Roy |
| 41 |
| S-C18-41 |
| Yes |
| S-C18-41 |
| esource Series Number |
| |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 18.5 |
| Calculated Stream Type | Ephemeral |
| Observed Use | Drainage |

Stream Conditions

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

Stream Measurements

| OHWM Width (ft) | 2 | |
|--------------------------|---|--|
| Average Water Width (ft) | 2 | |
| 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 | > 35% (> 20 deg) Very Steep | |
| 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

| 0 | |
|--------------------------|--------------------------------|
| Right Bank Height (feet) | 3 |
| 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] | 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 | Moderate |
| Particle size of stream substrate | Weak |
| Active or relict floodplain | Weak |
| Depositional bars or benches | Absent |
| Recent alluvial deposits | Absent |
| Headcuts | Absent |
| Grade control | Absent |
| Natural valley | Absent |
| Second or greater order channel | No |
| | |

Stream Geomorphology Total

| Ctroam | Hydrology | |
|--------|------------------|--|
| Stream | UARIANCES | |

| Presence of baseflowWeakIron oxidizing bacteriaWeakLeaf litterWeakSediment on plants or debrisAbsentOrganic debris lines or pilesAbsentSoil-based evidence of high water table?YesStream Hydrology Total6 | Stream right ology | |
|---|--|--------|
| Leaf litterWeakSediment on plants or debrisAbsentOrganic debris lines or pilesAbsentSoil-based evidence of high water table?Yes | Presence of baseflow | Weak |
| Sediment on plants or debrisAbsentOrganic debris lines or pilesAbsentSoil-based evidence of high water table?Yes | Iron oxidizing bacteria | Weak |
| Organic debris lines or piles Absent Soil-based evidence of high water table? Yes | Leaf litter | Weak |
| Soil-based evidence of high water table? Yes | Sediment on plants or debris | Absent |
| | Organic debris lines or piles | Absent |
| Stream Hydrology Total 6 | Soil-based evidence of high water table? | Yes |
| | Stream Hydrology Total | 6 |

7

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Weak |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 5.5 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Channel substrate is bedrock |
| Stream Overview Report Photos | |

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

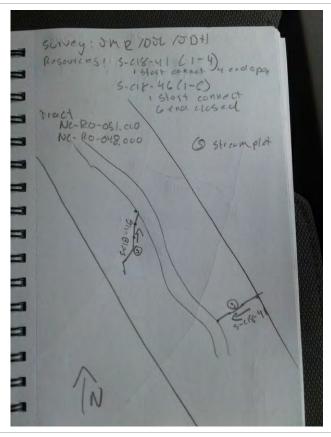
Е



Across stream photo direction 2

Sketch of Stream

W



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

S-C18-42

| Created | 2018-06-06 13:17:02 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-08 10:00:56 EDT by Sam Edmonds |
| Location | 36.4461004, -79.6886217 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/06 |
| Date2 | 180606 |
| | |

Resource Crew Info

| Joe Roy, Donald Lockwood |
|--------------------------|
| DJL |
| Joe Roy |
| 42 |
| S-C18-42 |
| Yes |
| S-C18-42 |
| esource Series Number |
| |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 10 |
| Calculated Stream Type | Ephemeral |
| Observed Use | Drainage |

Stream Conditions

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

Stream Measurements

| OHWM Width (ft) | 2 | |
|--------------------------|---|--|
| Average Water Width (ft) | 2 | |
| Bank to Bank (ft) | 2 | |
| Bankfull Width (ft) | 2 | |

| Probed Stream Depth | 0 to 6 inches | |
|-------------------------|-----------------------------|--|
| Left Bank | | |
| | | |
| Left Bank Height (feet) | 8 | |
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| 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)8Right Bank Slope> 35% (> 20 deg) Very SteepRight Erosion PotentialModerate | |
|---|--|
| | |
| Right Erosion Potential Moderate | |
| | |
| Right Bank Substrate Silt-Mud | |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

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

Stream Geomorphology Total

| 6 | |
|---|--|
| | |
| | |

Stream Hydrology

| Absent |
|----------|
| Absent |
| Moderate |
| Absent |
| Absent |
| No |
| 0.5 |
| |

Stream Biology

| Weak |
|---------------------------------------|
| Moderate |
| Absent |
| Absent |
| Absent |
| Absent |
| Weak |
| Absent |
| Other |
| 3.5 |
| State Protected, Corps Jurisdictional |
| |
| |

Upstream Stream Photo



Upstream photo direction

NE



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

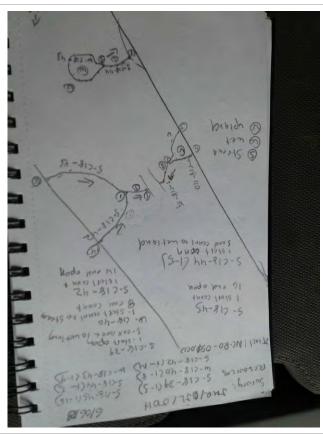
W



Across stream photo direction 2

Sketch of Stream

Е



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

S-C18-44

| Created | 2018-06-06 15:15:22 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-08 10:01:24 EDT by Sam Edmonds |
| Location | 36.4448345, -79.6884863 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/06 |
| Date2 | 180606 |
| | |

Resource Crew Info

| Field Crew | Joe Roy, Donald Lockwood |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 44 |
| Resource ID | S-C18-44 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-44 |
| Resource ID = Resource Type - Scientist Initials - F | Resource Series Number |

Stream Inventory

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

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

Left Bank

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

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 | Sand |
| | |

Right Bank Riparian Buffer Condition

| <u> </u> | | |
|-------------------------------|---|--|
| 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 | 4 |
|------------------------------------|--------|
| Second or greater order channel | No |
| Natural valley | Absent |
| Grade control | Absent |
| Headcuts | Absent |
| Recent alluvial deposits | Absent |
| Depositional bars or benches | Absent |
| Active or relict floodplain | Absent |
| Particle size of stream substrate | Weak |
| In-channel structure | Weak |
| Sinuosity of channel along thalweg | Weak |
| Continuity of channel bed and bank | Weak |

Stream Hydrology

| Moderate |
|----------|
| Moderate |
| Absent |
| Absent |
| Absent |
| Yes |
| 8.5 |
| |

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Moderate |
| Algae | Absent |
| Wetland plants in streambed | OBL |
| Stream Biology Total | 6.5 |
| 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

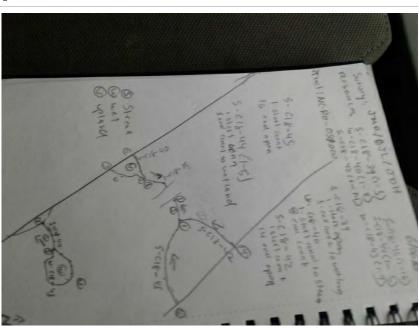
W



Across stream photo direction 2

Sketch of Stream

Е



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

S-C18-45

| Created | 2018-06-06 15:30:22 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-08 10:01:45 EDT by Sam Edmonds |
| Location | 36.4457568, -79.6888454 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/06 |
| Date2 | 180606 |
| | |

Resource Crew Info

| Joe Roy, Donald Lockwood |
|--------------------------|
| DJL |
| Joe Roy |
| 45 |
| S-C18-45 |
| Yes |
| S-C18-45 |
| esource Series Number |
| |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 16.5 |
| Calculated Stream Type | Ephemeral |
| Observed Use | Drainage |

Stream Conditions

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

Stream Measurements

| OHWM Width (ft) | 3 | |
|--------------------------|---|--|
| Average Water Width (ft) | 2 | |
| Bank to Bank (ft) | 3 | |
| Bankfull Width (ft) | 5 | |

| Probed Stream Depth | 0 to 6 inches | |
|-------------------------|--------------------------------|--|
| Left Bank | | |
| Left Bank Height (feet) | 6 | |
| Left Bank Slope | 25 to 35% (14 to 20 deg) Steep | |
| Left Erosion Potential | 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

| 0 | |
|--------------------------|--------------------------------|
| Right Bank Height (feet) | 6 |
| 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] | 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 | Weak |
| Depositional bars or benches | Absent |
| Recent alluvial deposits | Absent |
| Headcuts | Absent |
| Grade control | Absent |
| Natural valley | Absent |
| Second or greater order channel | No |
| | |

Stream Geomorphology Total

| 7 |
|---|
| |
| |

Stream Hydrology

| Presence of baseflow | Weak |
|--|----------|
| Iron oxidizing bacteria | Weak |
| 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 | 6.5 |

Stream Biology

| Moderate |
|---------------------------------------|
| Moderate |
| Weak |
| Absent |
| Other |
| 3 |
| State Protected, Corps Jurisdictional |
| |
| |

Upstream Stream Photo



Upstream photo direction

NE



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

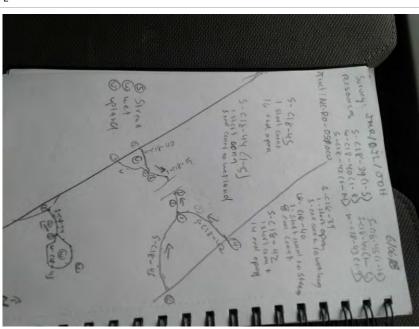
W



Across stream photo direction 2

Sketch of Stream

Е



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

S-C18-46

| Created | 2018-06-07 09:28:00 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-08 09:11:23 EDT by Sam Edmonds |
| Location | 36.4478698, -79.6909759 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/07 |
| Date2 | 180607 |
| | |

Resource Crew Info

| Joe Roy, Donald Lockwood |
|--------------------------|
| DJL |
| Joe Roy |
| 46 |
| S-C18-46 |
| Yes |
| S-C18-46 |
| Resource Series Number |
| |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 18.75 |
| Calculated Stream Type | Ephemeral |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | Ν |
| 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) | 0 | |
| 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 | Low |
| 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) | 1.5 |
|--------------------------|---|
| Right Bank Slope | 15 to 25% (9 to 14 deg) Steeply Sloping |
| Right Erosion Potential | Moderate |
| Right Bank Substrate | Silt-Mud |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

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

Stream Geomorphology Total

Stream Hydrology

| Stream right of ogy | |
|--|----------|
| 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? | Yes |
| Stream Hydrology Total | 4 |

11

Stream Biology

| Fibrous roots in streambed | Moderate |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 3.75 |
| 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

Ν



Across stream photo direction 1

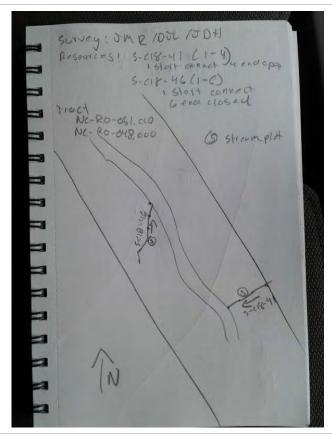
Е



Across stream photo direction 2

Sketch of Stream

W



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

| Created | 2018-06-07 14:16:58 UTC by Don Lockwood |
|----------|--|
| Updated | 2018-09-20 19:33:46 UTC by Susie Gifford (SBG) |
| Location | 36.4503036, -79.6924449 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/07 |
| Date2 | 180607 |
| | |

Resource Crew Info

| Field Crew | Joe Roy, Donald Lockwood |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 47 |
| Resource ID | S-C18-47 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-47 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|----------------------|
| Calculated Stream Score | 38.25 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | racoon & deer tracks |
| Observed Use | Fishing, Drainage |

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 | 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) | 20 | |
|--------------------------|----|--|
| Average Water Width (ft) | 16 | |
| Bank to Bank (ft) | 30 | |

| Bankfull Width (ft) | 20 |
|---------------------|---------------|
| Probed Stream Depth | 0 to 6 inches |

Left Bank

| Left Bank | |
|-------------------------|------------------------------------|
| Left Bank Height (feet) | 4 |
| 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] | 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 |

Right Bank

| Right Bank Height (feet) | 4 |
|--------------------------|------------------------------------|
| Right Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | Moderate |
| Right Bank Substrate | Sand, Silt-Mud, Organic, 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 | |
| | | |

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Moderate |
| Particle size of stream substrate | Moderate |
| Active or relict floodplain | Moderate |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Absent |
| Headcuts | Absent |
| Grade control | Moderate |
| Natural valley | Moderate |
| | |

| Second or greater order channel | Yes |
|---------------------------------|-----|
| 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

| Fibrous roots in streambed | Absent |
|-----------------------------------|---------------------------------------|
| 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 | 13.75 |
| 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

S



Across stream photo direction 1

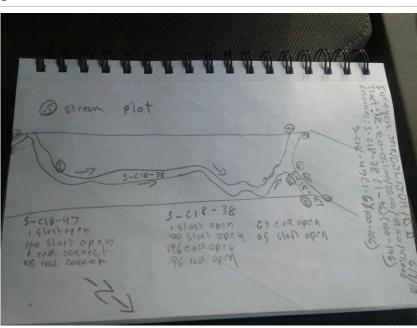
W



Across stream photo direction 2

Sketch of Stream

Е



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

| Created | 2018-06-07 12:36:50 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-08 09:14:34 EDT by Sam Edmonds |
| Location | 36.4519468, -79.6942982 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/07 |
| Date2 | 180607 |
| | |

Resource Crew Info

| Field Crew | Jeremy Hummel |
|--|--------------------------|
| Lead Scientist's Initials | JDH |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 48 |
| Resource ID | S-C18-48 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-48 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|-----------|
| Calculated Stream Score | 14.75 |
| Calculated Stream Type | Ephemeral |

Stream Conditions

| Dry or Minimal |
|----------------|
| SW |
| Poor |
| 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) | 4 | |
| Bankfull Width (ft) | 2 | |

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, Silt-Mud |

Left Bank Riparian Buffer Condition

| 0 | |
|---|---------------------------------|
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| | 0 0 0 0 0 0 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 | Sand, 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 | |

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

Stream Hydrology

| , 0, | |
|--|--------|
| Presence of baseflow | Absent |
| Iron oxidizing bacteria | Absent |
| Leaf litter | Weak |
| Sediment on plants or debris | Weak |
| Organic debris lines or piles | Weak |
| Soil-based evidence of high water table? | No |
| Stream Hydrology Total | 2 |

Stream Biology

| 5 | |
|-----------------------------------|---------------------------------------|
| 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 | FACW |
| Stream Biology Total | 5.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

SW



Downstream photo direction

Across Stream Photo 1

NE



Across stream photo direction 1

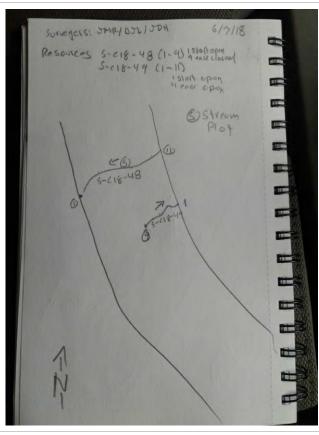
SE



Across stream photo direction 2

Sketch of Stream

NW



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

| Created | 2018-06-07 13:37:27 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-08 18:27:09 EDT by Sam Edmonds |
| Location | 36.4531281, -79.6956379 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/07 |
| Date2 | 180607 |
| | |

Resource Crew Info

| Joe Roy, Donald Lockwood |
|--------------------------|
| DJL |
| Joe Roy |
| 49 |
| S-C18-49 |
| Yes |
| S-C18-49 |
| esource Series Number |
| |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 28.75 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | Ν |
| Observed Use | Drainage |

Stream Conditions

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

Channel Alteration

| Negligible (1.5) Channel Alteration | 0 | |
|--|----|--|
| Low Minor (1.3) Channel Alteration | 1. | |
| 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 | |

Stream Measurements

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

| 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 | Low | |
| Left Bank Substrate | Bedrock, Sand, 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 | 8 to 15% (5 to 9 deg) Moderately Sloping |
| Right Erosion Potential | Moderate |
| Right Bank Substrate | Bedrock, Sand, Silt-Mud |

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 | |
| | | |

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | Moderate |
| Particle size of stream substrate | Moderate |
| Active or relict floodplain | Absent |
| Depositional bars or benches | Moderate |
| Recent alluvial deposits | Weak |
| Headcuts | Weak |
| Grade control | Moderate |
| Natural valley | Moderate |
| | |

Stream Geomorphology Total

| Stream | Hvd | drologv |
|--------|-----|---------|
|--------|-----|---------|

| 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 |

13

Stream Biology

| 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 | FACW |
| Stream Biology Total | 7.25 |
| 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

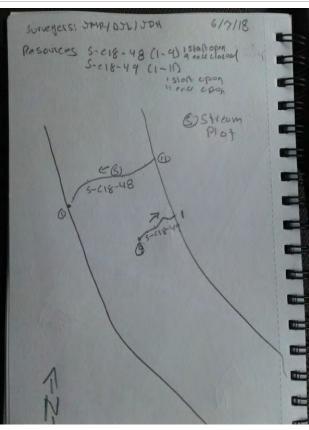
Ν



Across stream photo direction 2

Sketch of Stream

S



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

| Created | 2018-06-07 14:24:40 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-08 16:49:13 EDT by Sam Edmonds |
| Location | 36.4534744, -79.690453 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/07 |
| Date2 | 180607 |
| | |

Resource Crew Info

| Field Crew | Joe Roy, Donald Lockwood | |
|--|--------------------------|--|
| Lead Scientist's Initials | DJL | |
| GPS Surveyor | Joe Roy | |
| Resource Series Number | 50 | |
| Resource ID | S-C18-50 | |
| Do you need to override the resource id? | Yes | |
| Resource ID Override | S-C18-50 | |
| Resource ID = Resource Type - Scientist Initials - I | Resource Series Number | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 18.75 |
| Calculated Stream Type | Ephemeral |
| Observed Use | Drainage |

Stream Conditions

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

Channel Alteration

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

Stream Measurements

| OHWM Width (ft) | 1 | |
|--------------------------|---|--|
| Average Water Width (ft) | 1 | |
| Bank to Bank (ft) | 1 | |
| Bankfull Width (ft) | 1 | |

| Probed Stream Depth | 0 to 6 inches |
|-------------------------|--|
| Left Bank | |
| Left Bank Height (feet) | 1 |
| Left Bank Slope | 8 to 15% (5 to 9 deg) Moderately Sloping |
| Left Erosion Potential | Low |
| Left Bank Substrate | Silt-Mud |

Left Bank Riparian Buffer Condition

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

Right Bank

| 0 | |
|--------------------------|--|
| Right Bank Height (feet) | 1 |
| Right Bank Slope | 8 to 15% (5 to 9 deg) Moderately Sloping |
| Right Erosion Potential | Low |
| Right Bank Substrate | Silt-Mud |

Right Bank Riparian Buffer Condition

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

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

Stream Geomorphology Total

Stream Hydrology

| Sacaminyarology | |
|--|------|
| 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 |

7

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 4.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |

Upstream Stream Photo



Upstream photo direction





Across Stream Photo 1



Across stream photo direction 1

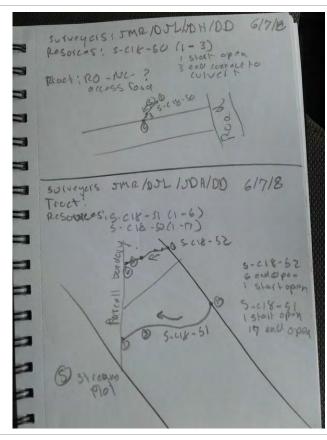
Е



Across stream photo direction 2

Sketch of Stream

W



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

| 2018-06-07 19:40:32 UTC by Don Lockwood 2018-09-20 19:34:25 UTC by Susie Gifford (SBG) 36.4581986, -79.6993331 |
|--|
| 36.4581986, -79.6993331 |
| |
| |
| Finalized & Approved |
| NextEra |
| MVP Southgate |
| |
| 18/06/07 |
| |

Resource Crew Info

| Field Crew | Joe Roy, Donald Lockwood |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 51 |
| Resource ID | S-C18-51 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-51 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|--------------|
| Calculated Stream Score | 22.25 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | Frogs |

Stream Conditions

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

Channel Alteration

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

Stream Measurements

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

| 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 |

Left Bank Riparian Buffer Condition

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

Right Bank

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

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | Moderate |
| Particle size of stream substrate | Weak |
| Active or relict floodplain | Weak |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Absent |
| Headcuts | Absent |
| Grade control | Absent |
| Natural valley | Moderate |
| | |

| Second or greater order channel | No | |
|---------------------------------|----|--|
| Stream Geomorphology Total | 9 | |
| | | |

Stream Hydrology

| Strong |
|----------|
| Absent |
| Weak |
| Weak |
| Moderate |
| No |
| 5.5 |
| |

Stream Biology

| nt |
|---------------------------------|
| |
| nt |
| nt |
| nt |
| rate |
| nt |
| 1 |
| |
| Protected, Corps Jurisdictional |
| |
| r |

Upstream Stream Photo



Upstream photo direction

Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

NW



Across stream photo direction 1

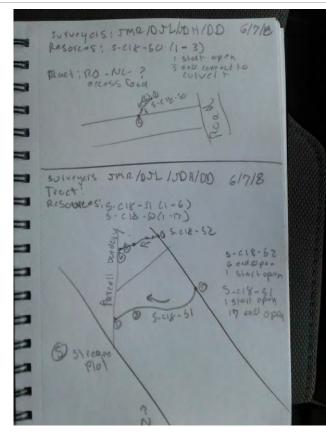
Ν

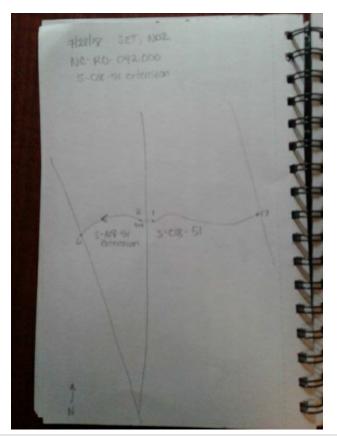


Across stream photo direction 2

Sketch of Stream

SW





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

| Created | 2018-06-07 20:08:47 UTC by Don Lockwood |
|-------------------|--|
| Updated | 2018-09-20 19:34:42 UTC by Susie Gifford (SBG) |
| Location | 36.459516, -79.6999506 |
| Status | Finalized & Approved |
| | |
| Client | NextEra |
| Client Project | NextEra MVP Southgate |
| | |

Resource Crew Info

| Field Crew | Joe Roy, Donald Lockwood |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 52 |
| Resource ID | S-C18-52 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-52 |
| 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 | Slow (< 1 cfs) |
|---------------------|----------------|
| Direction of Flow | W |
| Channel condition | Suboptimal |
| In stream habitat | Suboptimal |

Channel Alteration

| Negligible (1.5) Channel Alteration | 0 | |
|--|---|--|
| Low Minor (1.3) Channel Alteration | 0 | |
| High Minor (1.1) Channel Alteration | 0 | |
| Low Moderate (0.9) Channel Alteration | 0 | |
| High Moderate (0.7) Channel Alteration | 0 | |
| 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) | 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 | Boulder/Slabs, 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

| 0 | |
|--------------------------|--|
| Right Bank Height (feet) | 3 |
| Right Bank Slope | 8 to 15% (5 to 9 deg) Moderately Sloping |
| Right Erosion Potential | Low |
| Right Bank Substrate | Boulder/Slabs, 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 | |
| | | |

| 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 | Moderate |
| Grade control | Weak |
| Natural valley | Moderate |
| Second or greater order channel | No |
| | |

| Stream Geomorphology Total |
|----------------------------|
|----------------------------|

Stream Hydrology

| Stream right blogy | |
|--|----------|
| Presence of baseflow | Weak |
| 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? | No |
| Stream Hydrology Total | 4 |

15.5

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Absent |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 5.75 |
| 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

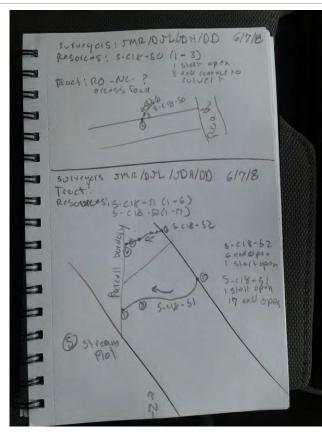
Ν

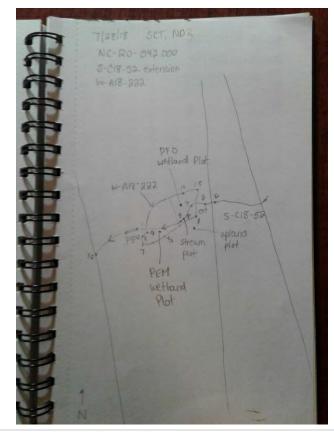


Across stream photo direction 2

Sketch of Stream

S





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

| Created | 2018-06-08 11:16:02 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-25 10:14:49 EDT by Sam Edmonds |
| Location | 36.4441645, -79.6879995 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/08 |
| Date2 | 180608 |
| | |

Resource Crew Info

| Field Crew | Joe Roy |
|--|--------------------------|
| Lead Scientist's Initials | JMR |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 53 |
| Resource ID | S-C18-53 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-53 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Balcalli interneory | |
|--|----------------|
| Stream / Waterbody Type | Intermittent |
| Calculated Stream Score | 23.25 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | None |
| Observed Use | Drainage |
| Stream Conditions | |
| Water Flow Velocity | Dry or Minimal |
| Direction of Flow | W |
| Channel condition | Suboptimal |
| In stream habitat | Suboptimal |
| Channel Alteration | |
| Negligible (1.5) Channel Alteration | 0 |
| Low Minor (1.3) Channel Alteration | 1.3 |
| High Minor (1.1) Channel Alteration | 0 |
| Low Moderate (0.9) Channel Alteration | 0 |
| High Moderate (0.7) Channel Alteration | 0 |
| Severe (0.5) Channel Alteration | 0 |
| | |

Stream Measurements

Channel Alteration Total

| OHWM Width (ft) | 2 |
|--------------------------|---|
| Average Water Width (ft) | 1 |

1.3

| 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 | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | Moderate | |
| Left Bank Substrate | Sand, Organic, Vegetated | |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 2 |
|--------------------------|-----------------------------|
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Moderate |
| Right Bank Substrate | Sand, Organic, Vegetated |

Right Bank Riparian Buffer Condition

| 0 1 | |
|-------------------------------|-----|
| 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 |

| 1 07 | |
|------------------------------------|----------|
| 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 | Moderate |
| Headcuts | Moderate |
| Grade control | Weak |
| | |

| Natural valley | Weak |
|---------------------------------|------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 15 |

Stream Hydrology

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

Stream Biology

| 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2 | |
|--|---------------------------------------|
| 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 |
| Stream Overview Report Photos | |

Stream Overview Report Photos

Upstream Stream Photo



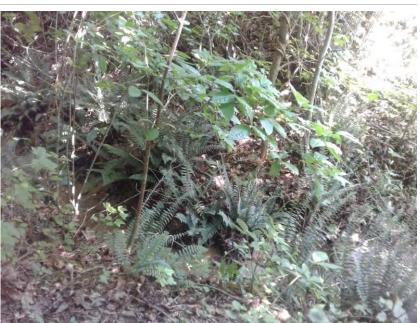
Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

NW



Across stream photo direction 1

Ν

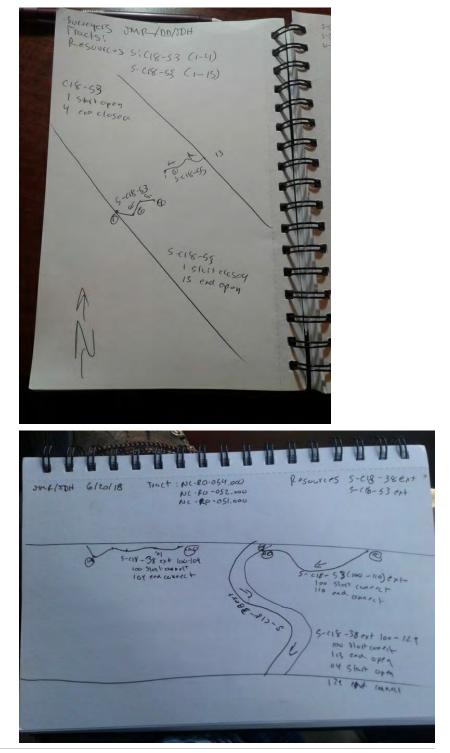


Across stream photo direction 2

NW



Sketch of Stream



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

S-C18-54

| Created | 2018-06-08 11:00:28 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-18 15:43:04 EDT by Sam Edmonds |
| Location | 36.4443345, -79.68727 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/08 |
| Date2 | 180608 |
| | |

Resource Crew Info

| Field Crew | Joe Roy |
|--|--------------------------|
| Lead Scientist's Initials | JMR |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 54 |
| Resource ID | S-C18-54 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-54 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream inventory | |
|--|----------------|
| Stream / Waterbody Type | Intermittent |
| Calculated Stream Score | 21.75 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | None |
| Observed Use | Drainage |
| 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 Stream Measurements 1.5

| OHWM Width (ft) | 2 |
|--------------------------|---|
| Average Water Width (ft) | 1 |

| Bank to Bank (ft) | 3 |
|---------------------|---------------|
| Bankfull Width (ft) | 2 |
| 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 | Sand, Organic, Vegetated | |

Left Bank Riparian Buffer Condition

| 0 | |
|-----|--|
| 1.2 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 1.2 | |
| | 1.2 0 0 0 0 0 0 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 | Sand, Organic, Vegetated |

Right Bank Riparian Buffer Condition

| Optimal (1.5) [Right] | 0 | |
|-------------------------------|----|--|
| High suboptimal (1.2) [Right] | 1. | |
| 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 | |

Stream Geomorphology

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

| Natural valley | Moderate |
|---------------------------------|----------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 9.5 |

Stream Hydrology

| Absent |
|----------|
| Weak |
| Moderate |
| Absent |
| Moderate |
| Yes |
| 5.5 |
| |

Stream Biology

| Absent |
|---|
| Absent |
| FACW |
| 6.75 |
| State Protected, Corps Jurisdictional |
| Feature morphology decreases nearing corridor |
| |
| |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

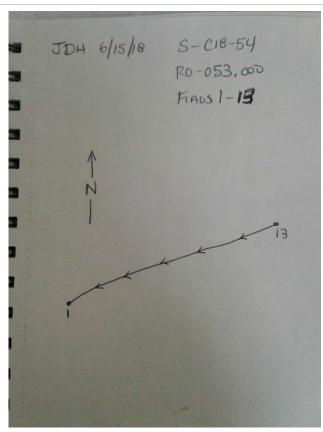
Ν



Across stream photo direction 2

Sketch of Stream

S



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

S-C18-55

| Created | 2018-06-08 12:23:45 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-18 15:25:52 EDT by Sam Edmonds |
| Location | 36.4427122, -79.6856353 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/08 |
| Date2 | 180608 |
| | |

Resource Crew Info

| Field Crew | Joe Roy |
|--|--------------------------|
| Lead Scientist's Initials | JMR |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 55 |
| Resource ID | S-C18-55 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-55 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------------------|----------------|
| Calculated Stream Score | 10.5 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | None |
| 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 |

| LOW MINOR (1.5) Charmer 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) | 4 |
|---------------------|---------------|
| Bankfull Width (ft) | 4 |
| Probed Stream Depth | 0 to 6 inches |

Left Bank

| Left Bank Height (feet) | 2 | |
|-------------------------|--------------------------------|--|
| Left Bank Slope | 25 to 35% (14 to 20 deg) Steep | |
| Left Erosion Potential | Low | |
| Left Bank Substrate | Organic, Vegetated | |

Left Bank Riparian Buffer Condition

| 0 | |
|-----|---|
| 1.2 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 1.2 | |
| | 1.2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |

Right Bank

| Right Bank Height (feet) | 2 |
|--------------------------|--------------------------------|
| Right Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | Low |
| Right Bank Substrate | Organic, Vegetated |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

| Continuity of channel bed and bank | Moderate |
|------------------------------------|----------|
| Sinuosity of channel along thalweg | Weak |
| In-channel structure | 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 | Strong |
|---------------------------------|--------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 6.5 |

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

| 0, | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Moderate |
| Rooted upland plants in streambed | Moderate |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 2.5 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Connects to S-C18-38 |
| Stream Quantique Danart Dhatas | |

Stream Overview Report Photos

Upstream Stream Photo



Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

S

Across Stream Photo 2

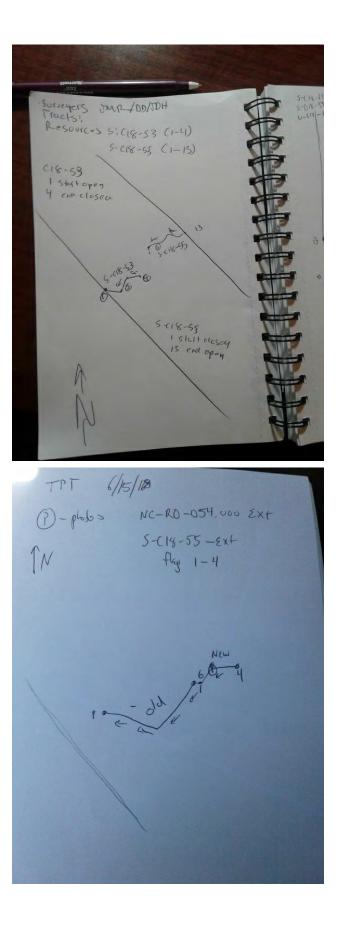


Across stream photo direction 2

Ν



Sketch of Stream



TPT 6/15/118 ()-pholos NC-RD-054,000 EXT S-C18-55-EXT fly 1-4 New 012

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

S-C18-56

| Created | 2018-06-08 13:58:40 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-18 15:26:13 EDT by Sam Edmonds |
| Location | 36.4411987, -79.6841923 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/08 |
| Date2 | 180608 |

Resource Crew Info

| Field Crew | Joe Roy |
|--|--------------------------|
| Lead Scientist's Initials | JMR |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 56 |
| Resource ID | S-C18-56 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-56 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|--|----------------|
| Calculated Stream Score | 31 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | None |
| Observed Use | Drainage |
| Stream Conditions | |
| Water Flow Velocity | Slow (< 1 cfs) |
| Direction of Flow | E |
| 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) | 2 |
| | |

| 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 | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | Low | |
| Left Bank Substrate | Organic, 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 | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Low |
| Right Bank Substrate | Organic, 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

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Moderate |
| Particle size of stream substrate | Moderate |
| Active or relict floodplain | Moderate |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Weak |
| Headcuts | Weak |
| Grade control | Strong |
| | |

| Natural valley | Moderate |
|---------------------------------|----------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 15.5 |

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 streambedWeakRooted upland plants in streambedAbsentMacrobenthosWeakAquatic mullusksWeakFishAbsentCrayfishWeakAmphibiansWeakAlgaeAbsentWetland plants in streambedOtherStream Biology Total8Regulatory StatusState Protected, Corps JurisdictionalStream Overview Report PhotosStream State Stream State | | |
|---|-----------------------------------|---------------------------------------|
| MacrobenthosWeakAquatic mullusksWeakFishAbsentCrayfishWeakAmphibiansWeakAlgaeAbsentWetland plants in streambedOtherStream Biology Total8Regulatory StatusState Protected, Corps Jurisdictional | Fibrous roots in streambed | Weak |
| Aquatic mullusksWeakFishAbsentCrayfishWeakAmphibiansWeakAlgaeAbsentVetland plants in streambedOtherStream Biology Total8Regulatory StatusState Protected, Corps Jurisdictional | Rooted upland plants in streambed | Absent |
| FishAbsentCrayfishWeakAmphibiansWeakAlgaeAbsentVetland plants in streambedOtherStream Biology Total8Regulatory StatusState Protected, Corps Jurisdictional | Macrobenthos | Weak |
| CrayfishWeakAmphibiansWeakAlgaeAbsentWetland plants in streambedOtherStream Biology Total8Regulatory StatusState Protected, Corps Jurisdictional | Aquatic mullusks | Weak |
| AmphibiansWeakAlgaeAbsentWetland plants in streambedOtherStream Biology Total8Regulatory StatusState Protected, Corps Jurisdictional | Fish | Absent |
| Algae Absent Wetland plants in streambed Other Stream Biology Total 8 Regulatory Status State Protected, Corps Jurisdictional | Crayfish | Weak |
| Wetland plants in streambedOtherStream Biology Total8Regulatory StatusState Protected, Corps Jurisdictional | Amphibians | Weak |
| Stream Biology Total 8 Regulatory Status State Protected, Corps Jurisdictional | Algae | Absent |
| Regulatory Status State Protected, Corps Jurisdictional | Wetland plants in streambed | Other |
| | Stream Biology Total | 8 |
| Stream Overview Report Photos | 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

S



Across stream photo direction 2

Ν



Sketch of Stream

Surveyors JM2/DD/JDH Posoukos S-C18-55 (1-0) S-C18/56 (1-10) S-C18-55 OSLOFT COMPECT O ENCLOPE 5-08-95 S-C18-5C O Short count (15mg Dence open 5- (18-54 0. NL-10-056000 TPT 6/15/18 5-618-56-5x1 flyc 1-9 N D- platos NOW & B 919 t a 4

TPT 6/15/13 NC-80-056000 5-C18-56-2xt flgc 1-3 New 99 E

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

S-C18-57

| Created | 2018-06-08 19:53:12 UTC by Don Lockwood |
|----------|--|
| Updated | 2018-09-20 19:34:58 UTC by Susie Gifford (SBG) |
| Location | 36.4395621, -79.6827474 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/08 |
| Date2 | 180608 |

Resource Crew Info

| Field Crew | Joe Roy |
|--|--------------------------|
| Lead Scientist's Initials | JMR |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 57 |
| Resource ID | S-C18-57 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-57 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|--|----------------|
| Calculated Stream Score | 25.75 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | None |
| Observed Use | Drainage |
| 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 | 0 |
| Low Minor (1.3) Channel Alteration | 0 |
| High Minor (1.1) Channel Alteration | 0 |
| Low Moderate (0.9) Channel Alteration | 0.9 |
| High Moderate (0.7) Channel Alteration | 0 |
| Severe (0.5) Channel Alteration | 0 |
| Channel Alteration Total | 0.9 |
| Stream Measurements | |
| OHWM Width (ft) | 2 |
| Average Water Width (ft) | 1 |
| | |

| Bank to Bank (ft) | 3 |
|---------------------|---------------|
| Bankfull Width (ft) | 3 |
| Probed Stream Depth | 0 to 6 inches |

Left Bank

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

Left Bank Riparian Buffer Condition

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

Right Bank

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

Right Bank Riparian Buffer Condition

| 0 | |
|-----|-----------------------------------|
| 1.2 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 1.2 | |
| | 1.2 0 0 0 0 0 0 |

Stream Geomorphology

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

| Natural valley | Moderate |
|---------------------------------|----------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 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 | Weak |
| Soil-based evidence of high water table? | Yes |
| Stream Hydrology Total | 7 |
| | |

Stream Biology

| Weak | |
|---------------------------------------|--|
| Absent | |
| Weak | |
| Absent | |
| FACW | |
| 9.25 | |
| State Protected, Corps Jurisdictional | |
| Connects to S-C18-38 | |
| | |
| | |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1



Across stream photo direction 1

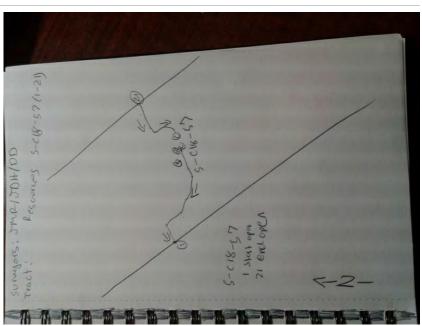
S





Sketch of Stream

Ν



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

WB-C18-58

| Created | 2018-06-09 09:43:58 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-13 11:00:34 EDT by Sam Edmonds |
| Location | 36.2133811, -79.5173012 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | // |
| Date2 | 180612 |
| | |

Resource Crew Info

| , Donald Lockwood |
|-------------------|
| |
| |
| |
| |
| 3-58 |
| |
| 3-58 |
| ies Number |
| |

Stream Inventory

| 2 | |
|-------------------------|-----------------------|
| Stream / Waterbody Type | Pond |
| Calculated Stream Score | 0 |
| Calculated Stream Type | Undetermined |
| Wildlife Observed | Frogs |
| Observed Use | Irrigation, Livestock |

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 Co | ondition | |
|-------------------------------|----------|--|
| 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 Total | 0 | |
|----------------------|---------------------------------------|--|
| Regulatory Status | State Protected, Corps Jurisdictional | |
| | | |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

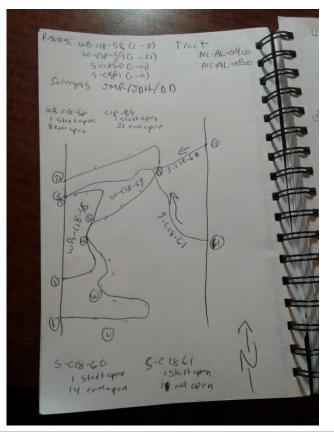
Across Stream Photo 1

S



Across stream photo direction 1

W



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

S-C18-60

| Created | 2018-06-09 14:52:31 UTC by Don Lockwood |
|----------|---|
| Updated | 2018-09-11 16:22:03 UTC by Will Buetow |
| Location | 36.2140216, -79.5169703 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | // |
| Date2 | 180612 |

Resource Crew Info

| Field Crew | Joe Roy |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 60 |
| Resource ID | S-C18-60 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-60 |
| 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 | SW |
| 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) | 4 | |
|--------------------------|---|--|
| Average Water Width (ft) | 4 | |
| 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 | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | High | |
| Left Bank Substrate | Sand | |

Left Bank Riparian Buffer Condition

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

Right Bank

| • | |
|--------------------------|-----------------------------|
| Right Bank Height (feet) | 1 |
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | High |
| Right Bank Substrate | Sand |

Right Bank Riparian Buffer Condition

| <u> </u> | | |
|-------------------------------|---|--|
| 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 | Weak |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Moderate |
| Headcuts | Absent |
| Grade control | Weak |
| Natural valley | Moderate |
| Second or greater order channel | No |
| | |

|--|

Stream Hydrology

| Stream right blogy | |
|--|----------|
| Presence of baseflow | Strong |
| Iron oxidizing bacteria | Absent |
| Leaf litter | Absent |
| Sediment on plants or debris | Moderate |
| Organic debris lines or piles | Weak |
| Soil-based evidence of high water table? | No |
| Stream Hydrology Total | 6 |

11.5

Stream Biology

| 0, | |
|-----------------------------------|---------------------------------------|
| 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

NE



Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

Ν



Across stream photo direction 2

Additional Stream Photos

SE



extension upstream facing ne



downstream facing sw



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

Sketch of Stream

S-C18-61

| Created | 2018-06-09 14:42:35 UTC by Don Lockwood |
|----------|---|
| Updated | 2018-09-11 15:55:41 UTC by Will Buetow |
| Location | 36.2138415, -79.5169846 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | // |
| Date2 | 180612 |
| | |

Resource Crew Info

| Field Crew | Joe Roy |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 61 |
| Resource ID | S-C18-61 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-61 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|--------------|
| Calculated Stream Score | 28.75 |
| Calculated Stream Type | Intermittent |

Stream Conditions

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

Channel Alteration

| Negligible (1.5) Channel Alteration | 0 | | |
|--|---|--|--|
| Low Minor (1.3) Channel Alteration | 0 | | |
| High Minor (1.1) Channel Alteration | 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) | 3 | |
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | High | |
| Left Bank Substrate | Silt-Mud | |

Left Bank Riparian Buffer Condition

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

Right Bank

| • | |
|--------------------------|-----------------------------|
| Right Bank Height (feet) | 3 |
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Moderate |
| Right Bank Substrate | Silt-Mud |
| | |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

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

Stream Geomorphology Total

| Stream Hydrology | | |
|--|----------|--|
| Presence of baseflow | Strong | |
| 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? | No | |
| Stream Hydrology Total | 6.5 | |

15

Stream Biology

| Fibrous roots in streambed | Moderate |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Weak |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Strong |
| Algae | Absent |
| 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



Downstream photo direction

Across Stream Photo 1

NW



Across stream photo direction 1

NE



Across stream photo direction 2

Additional Stream Photos

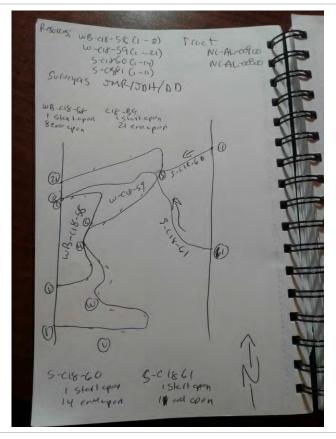
S



extension upstream facing east



extension downstream facing west



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

Sketch of Stream

S-C18-62

| Created | 2018-06-09 11:34:08 EDT by Don Lockwood | |
|---------------------------|---|--|
| Updated | 2018-06-13 11:01:49 EDT by Sam Edmonds | |
| Location | 36.2177724, -79.5191586 | |
| Status | Finalized & Approved | |
| Client | NextEra | |
| Project | MVP Southgate | |
| Date | // | |
| Date2 | 180612 | |
| Resource Crew Info | | |
| Field Crew | Joe Roy | |
| Lead Scientist's Initials | DJL | |
| GPS Surveyor | Joe Roy | |
| Resource Series Number | 62 | |

| Resource ID | S-C18-62 |
|--|------------------------|
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-62 |
| Resource ID = Resource Type - Scientist Initials - R | Resource Series Number |

Stream Inventory

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

Stream Conditions

| Ser carri corrateorio | | |
|-----------------------|----------------|--|
| 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 | 0 | |
| High Minor (1.1) Channel Alteration | 0 | |
| Low Moderate (0.9) Channel Alteration | 0 | |
| High Moderate (0.7) Channel Alteration | 0 | |
| Severe (0.5) Channel Alteration | 0 | |
| Channel Alteration Total | 0 | |
| | | |

Stream Measurements

| OHWM Width (ft) | 4 | |
|--------------------------|---------------|--|
| Average Water Width (ft) | 2 | |
| Bank to Bank (ft) | 5 | |
| Bankfull Width (ft) | 5 | |
| Probed Stream Depth | 0 to 6 inches | |

Left Bank

| Left Bank Height (feet) | 1.5 |
|-------------------------|--|
| Left Bank Slope | 8 to 15% (5 to 9 deg) Moderately Sloping |
| Left Erosion Potential | Moderate |
| Left Bank Substrate | Silt-Mud, Vegetated |

Left Bank Riparian Buffer Condition

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

Right Bank

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

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Strong |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Moderate |
| Particle size of stream substrate | Strong |
| Active or relict floodplain | Strong |
| Depositional bars or benches | Moderate |
| Recent alluvial deposits | Moderate |
| Headcuts | Weak |
| Grade control | Weak |
| Natural valley | Moderate |
| Second or greater order channel | No |
| Stream Geomorphology Total | 19.5 |
| | |

Stream Hydrology

| Strong |
|----------|
| Weak |
| Weak |
| Weak |
| Moderate |
| No |
| 6.5 |
| |

Stream Biology

| 0, | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Moderate |
| 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 | 5.5 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| | |

Stream Overview Report Photos

Upstream Stream Photo



Upstream photo direction

Е



Downstream photo direction

Across Stream Photo 1

NW



Across stream photo direction 1

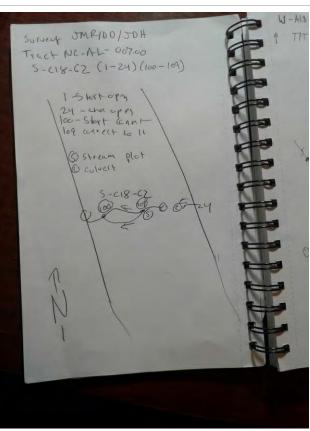
NE



Across stream photo direction 2

Sketch of Stream

S



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

S-C18-63

| Created | 2018-06-09 12:34:13 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-13 11:02:35 EDT by Sam Edmonds |
| Location | 36.2192596, -79.5201847 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | // |
| Date2 | 180612 |
| | |

Resource Crew Info

| Field Crew | Joe Roy |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 63 |
| Resource ID | S-C18-63 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-63 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|-----------|
| Calculated Stream Score | 33.5 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Frogs |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Slow (< 1 cfs) |
|---------------------|----------------|
| Direction of Flow | S |
| 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) | 4 | |
|--------------------------|---|--|
| Average Water Width (ft) | 3 | |
| Bank to Bank (ft) | 6 | |

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

Left Bank

| Left Bank Height (feet) | 3 | |
|-------------------------|------------------------------|--|
| Left Bank Slope | > 35% (> 20 deg) Very Steep | |
| Left Erosion Potential | Low | |
| Left Bank Substrate | Silt-Mud, Organic, Vegetated | |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 3 | |
|--------------------------|------------------------------|--|
| Right Bank Slope | > 35% (> 20 deg) Very Steep | |
| Right Erosion Potential | Low | |
| Right Bank Substrate | Silt-Mud, Organic, Vegetated | |

Right Bank Riparian Buffer Condition

| 1.2 0 0 |
|---------------|
| |
| 0 |
| |
| 0 |
| 0 |
| 0 |
| 1.2 |
| |

Stream Geomorphology

| 1 07 | | |
|------------------------------------|----------|--|
| Continuity of channel bed and bank | Moderate | |
| Sinuosity of channel along thalweg | Moderate | |
| In-channel structure | Moderate | |
| Particle size of stream substrate | Moderate | |
| Active or relict floodplain | Moderate | |
| Depositional bars or benches | Weak | |
| Recent alluvial deposits | Weak | |
| Headcuts | Weak | |
| Grade control | Moderate | |
| Natural valley | Moderate | |
| | | |

| Second or greater order channel | Yes |
|---------------------------------|-----|
| Stream Geomorphology Total | 18 |

Stream Hydrology

| Weak |
|------|
| Weak |
| Weak |
| Weak |
| Weak |
| Yes |
| 7 |
| |

Stream Biology

| Weak | |
|---------------------------------------|--|
| Absent | |
| Weak | |
| Absent | |
| Other | |
| 8.5 | |
| State Protected, Corps Jurisdictional | |
| | |
| | |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1

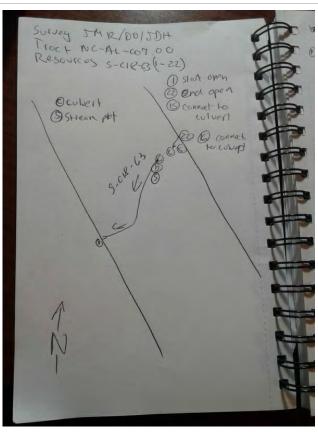
Е



Across stream photo direction 2

Additional Stream Photos

W



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

WB-C18-64

| Created | 2018-06-09 17:13:15 UTC by Don Lockwood | | |
|----------|--|--|--|
| Updated | 2018-09-20 19:37:41 UTC by Susie Gifford (SBG) | | |
| Location | 36.2202152, -79.5217328 | | |
| Status | Finalized & Approved | | |
| Client | NextEra | | |
| Project | MVP Southgate | | |
| Date | 1/ | | |
| Date2 | 180612 | | |

Resource Crew Info

| Field Crew | d Crew Joe Roy | | |
|--|-----------------------------|--|--|
| Lead Scientist's Initials | DJL | | |
| GPS Surveyor | Joe Roy | | |
| GPS ID | NA | | |
| Resource Series Number | 64 | | |
| Resource ID | burce ID WB-C18-64 | | |
| o you need to override the resource id? Yes | | | |
| Resource ID Override | purce ID Override WB-C18-64 | | |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number | | |
| | | | |

Stream Inventory

| Stream / Waterbody Type | Pond | |
|--|----------------|--|
| Calculated Stream Score | 0 | |
| Calculated Stream Type | Undetermined | |
| Wildlife Observed | Fish | |
| Observed Use | Irrigation | |
| Stream Conditions | | |
| 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 | |
| | 0 | |
| Low Moderate (0.9) Channel Alteration | 0 | |
| | 0 | |
| Low Moderate (0.9) Channel Alteration High Moderate (0.7) Channel Alteration Severe (0.5) Channel Alteration | | |

Left Bank

Left Bank Riparian Buffer Condition

| 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

| 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 Hydrology

| ,, | | | |
|------------------------|---------------------------------------|---------------------------------------|--|
| Stream Hydrology Total | Total 0 | | |
| Stream Biology | | | |
| Stream Biology Total | 0 | | |
| Regulatory Status | State Protected, Corps Jurisdictional | State Protected, Corps Jurisdictional | |
| | | | |

Stream Overview Report Photos

Upstream Stream Photo



Downstream Stream Photo

Ν



Downstream photo direction

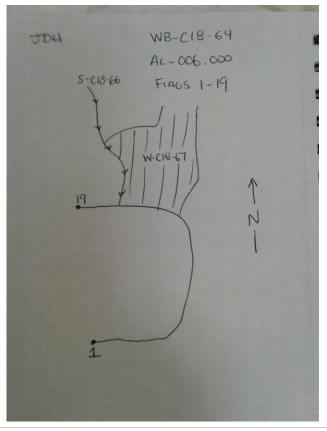
Across Stream Photo 1

W



Across stream photo direction 1

NE



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

S-C18-66

| Created | 2018-06-09 14:10:54 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-13 11:03:45 EDT by Sam Edmonds |
| Location | 36.2200397, -79.5216104 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | // |
| Date2 | 180612 |
| | |

Resource Crew Info

| Field Crew | Joe Roy |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 66 |
| Resource ID | S-C18-66 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-66 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|--|----------------|
| Calculated Stream Score | 25 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | Frogs |
| 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 | 0.9 |
| High Moderate (0.7) Channel Alteration | 0 |
| Severe (0.5) Channel Alteration | 0 |
| Channel Alteration Total | 0.9 |
| Stream Measurements | |
| OHWM Width (ft) | 3 |
| Average Water Width (ft) | 2 |
| | |

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

Left Bank

| Left Bank Height (feet) | 2 | 2 | |
|-------------------------|---|---|--|
| Left Bank Slope | 15 to 25% (9 to 14 deg) Steeply Sloping | 15 to 25% (9 to 14 deg) Steeply Sloping | |
| Left Erosion Potential | Low | | |
| Left Bank Substrate | Silt-Mud, Organic, Vegetated | | |

Left Bank Riparian Buffer Condition

| D D 1.1 D |
|--------------------|
| |
| |
| 0 |
| |
| 0 |
| 0 |
| 0 |
| 1.1 |
| |

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, Organic, Vegetated | |

Right Bank Riparian Buffer Condition

| 0 | |
|-----|-----------------------------------|
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0.5 | |
| 0.5 | |
| | 0 0 0 0 0 0 0.5 |

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 | Absent |
| Recent alluvial deposits | Absent |
| Headcuts | Weak |
| Grade control | Moderate |
| | |

| Natural valley | Moderate |
|---------------------------------|----------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 10 |

Stream Hydrology

| , | |
|--|--------|
| Presence of baseflow | Weak |
| Iron oxidizing bacteria | Weak |
| 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 | 6.5 |
| | |

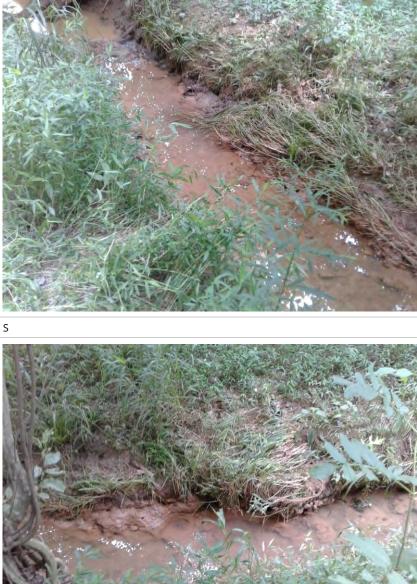
Stream Biology

| 0 | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Weak |
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Weak |
| Aquatic mullusks | Weak |
| Fish | Weak |
| Crayfish | Weak |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 8.5 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1



Across stream photo direction 1

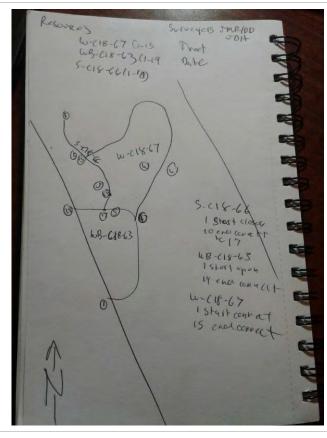
W



Across stream photo direction 2

Sketch of Stream

Е



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

S-C18-68

| Created | 2018-06-11 11:12:33 EDT by Don Lockwood |
|----------|---|
| Updated | 2018-06-13 11:04:09 EDT by Sam Edmonds |
| Location | 36.2096842, -79.5167309 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/11 |
| Date2 | 180611 |

Resource Crew Info

| Field Crew | Jeremy Hummel |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 68 |
| Resource ID | S-C18-68 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-68 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|-----------|
| Calculated Stream Score | 40.25 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Frogs |
| Observed Use | Drainage |

Stream Conditions

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

Channel Alteration

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

Stream Measurements

| OHWM Width (ft) | 5 |
|--------------------------|---|
| Average Water Width (ft) | 5 |

| Bank to Bank (ft) | 6 |
|---------------------|---------------|
| Bankfull Width (ft) | 5 |
| Probed Stream Depth | 0 to 6 inches |

Left Bank

| Left Bank Height (feet) | 4 |
|-------------------------|------------------------------|
| Left Bank Slope | > 35% (> 20 deg) Very Steep |
| Left Erosion Potential | Low |
| Left Bank Substrate | Silt-Mud, Organic, Vegetated |

Left Bank Riparian Buffer Condition

| 1.5 | |
|-----|----------------------------|
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 1.5 | |
| | 0 0 0 0 0 0 |

Right Bank

| Right Bank Height (feet) | 4 |
|--------------------------|------------------------------|
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Low |
| Right Bank Substrate | Silt-Mud, Organic, Vegetated |

Right Bank Riparian Buffer Condition

| 0 1 | |
|-------------------------------|-----|
| 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

| 1 02 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Strong |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Moderate |
| Particle size of stream substrate | Strong |
| Active or relict floodplain | Strong |
| Depositional bars or benches | Weak |
| Recent alluvial deposits | Weak |
| Headcuts | Weak |
| Grade control | Strong |
| | |

| Natural valley | Strong |
|---------------------------------|--------|
| Second or greater order channel | Yes |
| Stream Geomorphology Total | 22 |

Stream Hydrology

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

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Weak |
| Aquatic mullusks | Weak |
| Fish | Weak |
| Crayfish | Moderate |
| Amphibians | Moderate |
| Algae | Absent |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 10.25 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |

Upstream Stream Photo

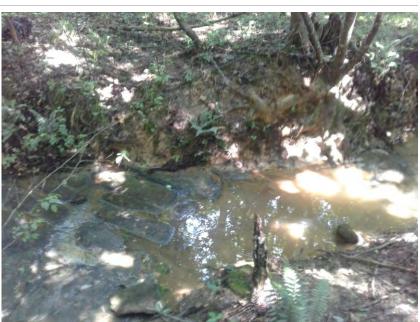




Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

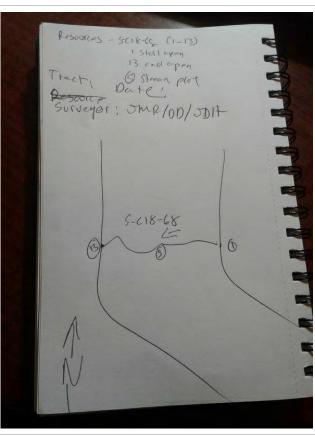
Ν



Across stream photo direction 2

Sketch of Stream

S



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

S-C18-70

| Created | 2018-06-12 13:30:28 EDT by Jeremy Hummel [Sabal] |
|----------|--|
| Updated | 2018-06-13 13:38:48 EDT by Sam Edmonds |
| Location | 36.0897926, -79.3652372 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/12 |
| Date2 | 180612 |
| | |

Resource Crew Info

| Field Crew | Tony Tredway, Jeremy Hummel |
|--|-----------------------------|
| Lead Scientist's Initials | C18 |
| GPS Surveyor | Tony Tredway |
| GPS ID | NA |
| Resource Series Number | 70 |
| Resource ID | S-C18-70 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

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

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| 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 | 0.7 |
| Severe (0.5) Channel Alteration | 0 |
| Channel Alteration Total | 0.7 |
| | |

Stream Measurements

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

Left Bank

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

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 4 |
|--------------------------|--------------------------------|
| Right Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | Moderate |
| Right Bank Substrate | Silt-Mud |
| | |

Right Bank Riparian Buffer Condition

| 0 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] | 0.6 | |
| Low poor (0.5) [Right] | 0 | |
| Right bank total | 0.6 | |
| | | |

Stream Geomorphology

| 1 07 | |
|------------------------------------|--------|
| Continuity of channel bed and bank | Strong |
| Sinuosity of channel along thalweg | Absent |
| In-channel structure | Weak |
| Particle size of stream substrate | Weak |
| Active or relict floodplain | Absent |
| Depositional bars or benches | Absent |
| Recent alluvial deposits | Absent |
| Headcuts | Weak |
| Grade control | Weak |
| Natural valley | Absent |
| Second or greater order channel | No |
| Stream Geomorphology Total | 6.5 |
| | |

Stream Hydrology

| , , , | |
|--|----------|
| Presence of baseflow | Weak |
| 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 | 8 |

Stream Biology

| 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 | Weak |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 8.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| | |

Stream Overview Report Photos

Upstream Stream Photo



Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

S



Across stream photo direction 1



Sketch of Stream





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

| Created | 2018-06-13 14:07:11 EDT by Jeremy Hummel [Sabal] |
|----------|--|
| | |
| Updated | 2018-06-14 14:06:55 EDT by Sam Edmonds |
| Location | 36.2695962, -79.559506 |
| Status | Finalized & Approved |
| Client | NextEra |
| Cherte | INEXTELIA |
| Project | MVP Southgate |
| | |

Resource Crew Info

| Field Crew | Will Buetow |
|--|--------------------------|
| Lead Scientist's Initials | B18 |
| GPS Surveyor | Simon King |
| GPS ID | NA |
| Resource Series Number | 71 |
| Resource ID | S-C18-71 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-71 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream inventory | |
|--|----------------|
| Stream / Waterbody Type | Perennial |
| Calculated Stream Score | 14.25 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | Frogs |
| Observed Use | Drainage |
| Stream Conditions | |
| Water Flow Velocity | Slow (< 1 cfs) |
| Direction of Flow | SE |
| 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 |
| | 0.7 |

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 | 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] | 0.6 | |
| Low poor (0.5) [Left] | 0 | |
| Left bank total | 0.6 | |
| | | |

Right Bank

| Right Bank Height (feet) | 1 |
|--------------------------|--|
| Right Bank Slope | 8 to 15% (5 to 9 deg) Moderately Sloping |
| Right Erosion Potential | High |
| 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 | |
| High poor (0.6) [Right] | 0.6 | |
| Low poor (0.5) [Right] | 0 | |
| Right bank total | 0.6 | |
| | | |

Stream Geomorphology

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Absent |
| 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 | Weak |
| | |

| Natural valley | Absent |
|---------------------------------|--------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 2.5 |

Stream Hydrology

| Presence of baseflow | Moderate |
|--|----------|
| Iron oxidizing bacteria | Absent |
| Leaf litter | Weak |
| Sediment on plants or debris | Weak |
| Organic debris lines or piles | Weak |
| Soil-based evidence of high water table? | No |
| Stream Hydrology Total | 4 |
| | |

Stream Biology

| Ser carri Brorogy | |
|-----------------------------------|---------------------------------------|
| Fibrous roots in streambed | Weak |
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Weak |
| Amphibians | Moderate |
| Algae | Weak |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 7.75 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | Farm drainage, cattle |
| Stream Overview Report Photos | |



Upstream photo direction

Downstream Stream Photo

NW



Downstream photo direction

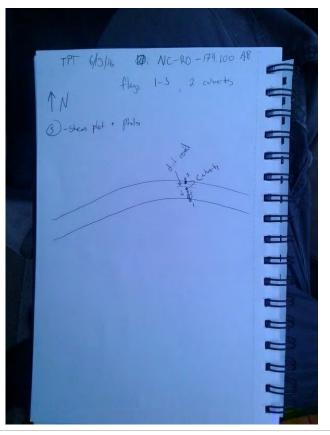


Across Stream Photo 2

SW



Across stream photo direction 2



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

| Created | 2018-06-19 09:25:45 EDT by Jeremy Hummel [Sabal] |
|----------|--|
| Updated | 2018-06-20 08:45:29 EDT by Sam Edmonds |
| Location | 36.4371398, -79.6813923 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/19 |
| Date2 | 180619 |

Resource Crew Info

| Field Crew | Joe Roy |
|--|------------------------|
| | joe noy |
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 72 |
| Resource ID | S-C18-72 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-72 |
| Resource ID = Resource Type - Scientist Initials - | Resource Series Number |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|--------------|
| Calculated Stream Score | 27.5 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | None |
| Observed Use | Drainage |

Stream Conditions

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

Channel Alteration

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

Stream Measurements

| OHWM Width (ft) | 3 |
|--------------------------|---|
| Average Water Width (ft) | 2 |
| Bank to Bank (ft) | 5 |

| Bankfull Width (ft) | 5 |
|---------------------|---------------|
| Probed Stream Depth | 0 to 6 inches |

Left Bank

| Left Bank Height (feet) | 2 |
|-------------------------|---|
| Left Bank Slope | 15 to 25% (9 to 14 deg) Steeply Sloping |
| Left Erosion Potential | Low |
| Left Bank Substrate | Organic, Vegetated |

Left Bank Riparian Buffer Condition

Right Bank

| Right Bank Height (feet) | 4 | |
|--------------------------|-----------------------------|--|
| Right Bank Slope | > 35% (> 20 deg) Very Steep | |
| Right Erosion Potential | Low | |
| Right Bank Substrate | Organic, 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

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Moderate |
| Particle size of stream substrate | Moderate |
| Active or relict floodplain | Weak |
| Depositional bars or benches | Absent |
| Recent alluvial deposits | Absent |
| Headcuts | Weak |
| Grade control | Moderate |
| Natural valley | Moderate |
| | |

| Second or greater order channel | No |
|---------------------------------|----|
| Stream Geomorphology Total | 12 |

Stream Hydrology

| Weak |
|------|
| Weak |
| Weak |
| Weak |
| Weak |
| Yes |
| 7 |
| |

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Weak |
| Aquatic mullusks | Weak |
| Fish | Weak |
| Crayfish | Weak |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 8.5 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

W



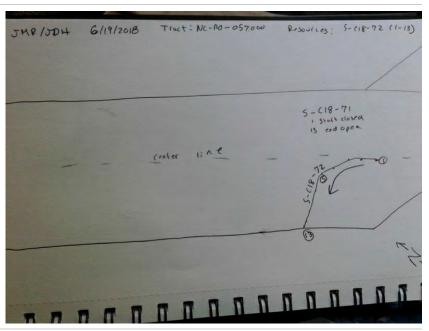
Across stream photo direction 1

S



Sketch of Stream

Ν



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

| Updated2018-09-20 19:35:21 UTC by Susie Gifford (SBG)Location36.4399843, -79.6841702StatusFinalized & ApprovedClientNextEra |
|---|
| Status Finalized & Approved Client NextEra |
| Client NextEra |
| |
| |
| Project MVP Southgate |
| Date 18/06/19 |
| Date2 180619 |

Resource Crew Info

| Field Crew | Joe Roy |
|--|------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| Resource Series Number | 73 |
| Resource ID | S-C18-73 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials - R | Resource Series Number |

Stream Inventory

| j | | |
|-------------------------|--------------|--|
| Stream / Waterbody Type | Perennial | |
| Calculated Stream Score | 27 | |
| Calculated Stream Type | Intermittent | |
| Wildlife Observed | None | |
| Observed Use | Drainage | |
| | | |

Stream Conditions

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

Channel Alteration

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

Stream Measurements

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

| 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 | Low | |
| Left Bank Substrate | Organic, Vegetated | |

Left Bank Riparian Buffer Condition

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

Right Bank

| 0 | | |
|--------------------------|-----------------------------|--|
| Right Bank Height (feet) | 4 | |
| Right Bank Slope | > 35% (> 20 deg) Very Steep | |
| Right Erosion Potential | Low | |
| Right Bank Substrate | Organic, Vegetated | |

Right Bank Riparian Buffer Condition

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

Stream Geomorphology

| Continuity of channel bed and bank | Moderate |
|------------------------------------|----------|
| Sinuosity of channel along thalweg | 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 | Weak |
| Grade control | Weak |
| Natural valley | Moderate |
| Second or greater order channel | No |
| | |

Stream Geomorphology Total

11.5

Stream Hydrology

| Presence of baseflow | Weak |
|--|------|
| Iron oxidizing bacteria | Weak |
| Leaf litter | Weak |
| Sediment on plants or debris | Weak |
| Organic debris lines or piles | 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 | Absent |
| Macrobenthos | Weak |
| Aquatic mullusks | Weak |
| Fish | Weak |
| Crayfish | Weak |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 8.5 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |

Upstream Stream Photo



Upstream photo direction



Downstream photo direction

Across Stream Photo 1

Е



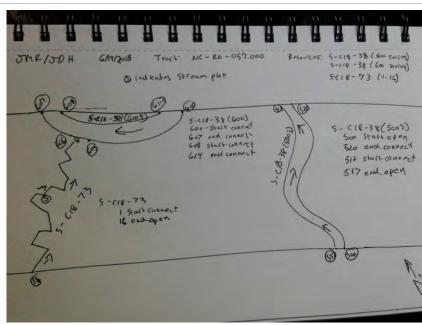
Across stream photo direction 1

Ν



Sketch of Stream

S



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

| Created | 2018-06-20 09:41:08 EDT by Jeremy Hummel [Sabal] |
|----------|--|
| Updated | 2018-06-25 10:07:54 EDT by Sam Edmonds |
| Location | 36.442677, -79.6871283 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/20 |
| Date2 | 180620 |
| | |

Resource Crew Info

| Field Crew | Joe Roy, Jeremy Hummel |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 74 |
| Resource ID | S-C18-74 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-74 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| , | |
|--|----------------|
| Stream / Waterbody Type | Intermittent |
| Calculated Stream Score | 18.25 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | None |
| Observed Use | Drainage |
| Stream Conditions | |
| Water Flow Velocity | Dry or Minimal |
| Direction of Flow | W |
| Channel condition | Marginal |
| In stream habitat | Poor |
| Channel Alteration | |
| Negligible (1.5) Channel Alteration | 0 |
| Low Minor (1.3) Channel Alteration | 0 |
| High Minor (1.1) Channel Alteration | 0 |
| Low Moderate (0.9) Channel Alteration | 0 |
| High Moderate (0.7) Channel Alteration | 0.7 |
| Severe (0.5) Channel Alteration | 0 |
| Channel Alteration Total | 0.7 |
| 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 | 15 to 25% (9 to 14 deg) Steeply Sloping |
| Left Erosion Potential | Low |
| Left Bank Substrate | Organic, 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 | Low | |
| Right Bank Substrate | Organic, 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

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

| Natural valley | Weak |
|---------------------------------|------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 7 |

Stream Hydrology

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

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 |
| Stroom Quantion Report Photos | |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

W



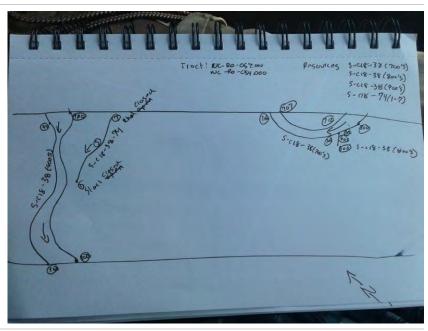
Across stream photo direction 1

Ν



Sketch of Stream

S



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

| Created | 2018-06-20 11:44:35 EDT by Jeremy Hummel [Sabal] |
|----------|--|
| Updated | 2018-06-25 10:09:12 EDT by Sam Edmonds |
| Location | 36.4455509, -79.6903789 |
| Status | Finalized & Approved |
| | |
| Client | NextEra |
| Project | NextEra MVP Southgate |
| | |

Resource Crew Info

| Field Crew | Joe Roy, Jeremy Hummel |
|--|--------------------------|
| Lead Scientist's Initials | DJL |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 75 |
| Resource ID | S-C18-75 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-75 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream inventory | |
|--|----------------|
| Stream / Waterbody Type | Ephemeral |
| Calculated Stream Score | 11 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | None |
| Observed Use | Drainage |
| Stream Conditions | |
| Water Flow Velocity | Dry or Minimal |
| Direction of Flow | SE |
| Channel condition | Suboptimal |
| In stream habitat | Poor |
| 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 |
| | |

Stream Measurements

Severe (0.5) Channel Alteration

Channel Alteration Total

| OHWM Width (ft) | 2 |
|--------------------------|---|
| Average Water Width (ft) | 2 |

0

1.3

| Bank to Bank (ft) | 4 |
|---------------------|---------------|
| Bankfull Width (ft) | 3 |
| 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 | Organic, 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) | 3 |
|--------------------------|--------------------------------|
| Right Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | Low |
| Right Bank Substrate | Organic, 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 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

| i | |
|------------------------------------|----------|
| 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 | Moderate |
| | |

| Natural valley | Moderate |
|---------------------------------|----------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 6 |

Stream Hydrology

| Absent |
|----------|
| Absent |
| Moderate |
| Absent |
| Moderate |
| No |
| 1.5 |
| |

Stream Biology

| Fibrous roots in streambed | Moderate |
|-----------------------------------|-------------------|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 3.5 |
| Notes | Non juridictional |
| Stream Overview Penert Photos | |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

SE



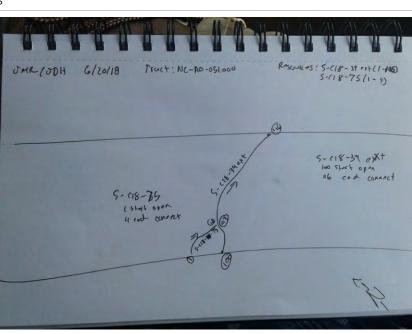
Across stream photo direction 1

Ν



Sketch of Stream

S



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

| Created | 2018-06-21 19:00:38 UTC by Jeremy Hummel [Sabal] |
|----------|--|
| Updated | 2018-08-30 13:51:43 UTC by Will Buetow |
| Location | 36.3055891, -79.5880684 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/21 |
| Date2 | 180621 |
| | |

Resource Crew Info

| Joe Roy, Jeremy Hummel |
|------------------------|
| C18 |
| Joe Roy |
| NA |
| 76 |
| S-C18-76 |
| No |
| esource Series Number |
| |

Stream Inventory

| Stream / Waterbody Type | Perennial |
|-------------------------|-----------|
| Calculated Stream Score | 39.25 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | Fish |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Moderate (1 - 5 cfs) |
|---------------------|----------------------|
| Direction of Flow | E |
| Channel condition | Marginal |
| In stream habitat | Marginal |

Channel Alteration

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

Stream Measurements

| OHWM Width (ft) | 12 |
|--------------------------|----|
| Average Water Width (ft) | 6 |
| Bank to Bank (ft) | 14 |

| Bankfull Width (ft) | 14 |
|---------------------|---------------|
| 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 | Moderate |
| Left Bank Substrate | 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 |
| 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) | 6 |
|--------------------------|------------------------------|
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Moderate |
| Right Bank Substrate | Silt-Mud, Organic, 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] | 0.75 | |
| High poor (0.6) [Right] | 0 | |
| Low poor (0.5) [Right] | 0 | |
| Right bank total | 0.75 | |
| | | |

Stream Geomorphology

| 1 07 | |
|------------------------------------|----------|
| 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 | Moderate |
| Recent alluvial deposits | Moderate |
| Headcuts | Weak |
| Grade control | Weak |
| Natural valley | Moderate |
| | |

| Second or greater order channel | Yes |
|---------------------------------|------|
| Stream Geomorphology Total | 16.5 |

Stream Hydrology

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

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 | Weak |
| Wetland plants in streambed | FACW |
| Stream Biology Total | 13.25 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Notes | South side of channel top of bank within RED No Access tract, Across Photo 2 to the North not accessible |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

Е

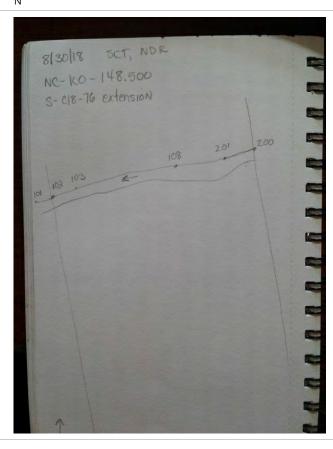


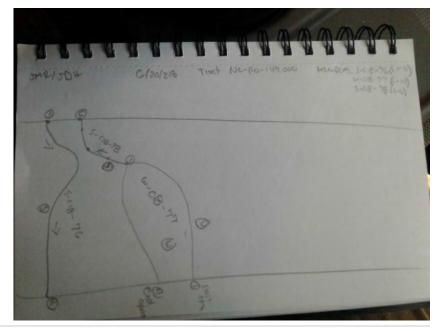
Across stream photo direction 1

S



Additional Stream Photos





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

| Created | 2018-06-21 16:08:20 EDT by Don Lockwood |
|-------------------|---|
| Updated | 2018-06-25 10:44:11 EDT by Sam Edmonds |
| Location | 36.3055492, -79.5876993 |
| Status | Finalized & Approved |
| | |
| Client | NextEra |
| Client Project | NextEra MVP Southgate |
| | |

Resource Crew Info

| Field Crew | Joe Roy, Jeremy Hummel, Susan Thebert |
|--|---------------------------------------|
| Lead Scientist's Initials | JDH |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 78 |
| Resource ID | S-C18-78 |
| Do you need to override the resource id? | Yes |
| Resource ID Override | S-C18-78 |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream inventory | |
|---------------------------------------|----------------|
| Stream / Waterbody Type | Intermittent |
| Calculated Stream Score | 20.75 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | None |
| Observed Use | Drainage |
| Stream Conditions | |
| Water Flow Velocity | Dry or Minimal |
| Direction of Flow | NE |
| Channel condition | Suboptimal |
| In stream habitat | Poor |
| 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 |

| | 0 | |
|--|-----|--|
| High Moderate (0.7) Channel Alteration | 0 | |
| Severe (0.5) Channel Alteration | 0 | |
| Channel Alteration Total | 1.3 | |
| | | |

Stream Measurements

| OHWM Width (ft) | 2 |
|--------------------------|---|
| Average Water Width (ft) | 2 |

| Bank to Bank (ft) | 3 |
|---------------------|---------------|
| Bankfull Width (ft) | 3 |
| Probed Stream Depth | 0 to 6 inches |

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

Left Bank Riparian Buffer Condition

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

Right Bank

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

Right Bank Riparian Buffer Condition

| 0 | |
|-----|-----------------------------------|
| 1.2 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 0 | |
| 1.2 | |
| | 1.2 0 0 0 0 0 0 |

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

| Natural valley | Strong |
|---------------------------------|--------|
| Second or greater order channel | No |
| Stream Geomorphology Total | 8.5 |

| Absent |
|----------|
| Absent |
| Weak |
| Moderate |
| Weak |
| Yes |
| 5.5 |
| |

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 |
| Straam Overview Report Photos | |

Stream Overview Report Photos

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

NE



Across stream photo direction 1

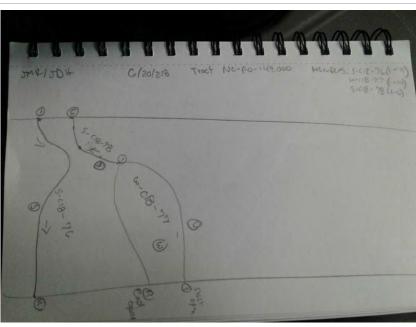
Е



Across stream photo direction 2

Sketch of Stream

W



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

S-C18-79

| Created | 2018-06-22 09:52:05 EDT by Jeremy Hummel [Sabal] |
|----------|--|
| Updated | 2018-06-26 10:32:22 EDT by Sam Edmonds |
| Location | 36.300923, -79.5856295 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/22 |
| Date2 | 180622 |
| | |

Resource Crew Info

| Field Crew | Joe Roy, Jeremy Hummel, Susan Thebert |
|--|---------------------------------------|
| Lead Scientist's Initials | C18 |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 79 |
| Resource ID | S-C18-79 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 31.5 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | None |
| Observed Use | Drainage |

Stream Conditions

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

Channel Alteration

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

Stream Measurements

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

| Bankfull Width (ft) | 5 |
|---------------------|---------------|
| Probed Stream Depth | 0 to 6 inches |

| Left Bank Height (feet) | 6 |
|-------------------------|------------------------------|
| Left Bank Slope | > 35% (> 20 deg) Very Steep |
| Left Erosion Potential | Low |
| Left Bank Substrate | 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] | 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 | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Low |
| Right Bank Substrate | Silt-Mud, Organic, 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 | |
| | | |

| 1 07 | |
|------------------------------------|----------|
| 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 | Weak |
| Recent alluvial deposits | Weak |
| Headcuts | Moderate |
| Grade control | Moderate |
| Natural valley | Strong |
| | |

| Second or greater order channel | Yes |
|---------------------------------|------|
| Stream Geomorphology Total | 16.5 |

| Weak |
|----------|
| Weak |
| Moderate |
| Weak |
| Moderate |
| Yes |
| 7 |
| |

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| 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 | 8 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

SW



Across stream photo direction 1

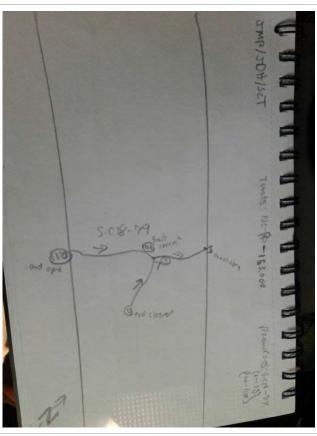
Е



Across stream photo direction 2

Sketch of Stream

W



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

S-C18-80

| Created | 2018-06-22 17:17:55 UTC by Jeremy Hummel [Sabal] |
|----------|--|
| Updated | 2018-09-20 19:35:36 UTC by Susie Gifford (SBG) |
| Location | 36.3472917, -79.6072676 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/22 |
| Date2 | 180622 |
| | |

Resource Crew Info

| Field Crew | Joe Roy, Jeremy Hummel, Susan Thebert |
|--|---------------------------------------|
| Lead Scientist's Initials | C18 |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 80 |
| Resource ID | S-C18-80 |
| 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 | 28 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | None |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Slow (< 1 cfs) |
|---------------------|----------------|
| Direction of Flow | E |
| 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) | 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 | > 35% (> 20 deg) Very Steep |
| Left Erosion Potential | Low |
| Left Bank Substrate | Silt-Mud, Organic, Vegetated |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 3 |
|--------------------------|--------------------------------|
| Right Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | Low |
| Right Bank Substrate | Silt-Mud, Organic, Vegetated |

Right Bank Riparian Buffer Condition

| 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 | |

| 1 07 | |
|------------------------------------|----------|
| 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 | Weak |
| Recent alluvial deposits | Weak |
| Headcuts | Weak |
| Grade control | Moderate |
| Natural valley | Strong |
| | |

| Second or greater order channel | No | |
|---------------------------------|------|--|
| Stream Geomorphology Total | 12.5 | |
| | | |

| , , , | |
|--|----------|
| Presence of baseflow | Weak |
| 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 | 7 |

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|---------------------------------------|
| Rooted upland plants in streambed | Absent |
| Macrobenthos | Weak |
| Aquatic mullusks | Weak |
| Fish | Weak |
| Crayfish | Weak |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 8.5 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |
| | |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

S



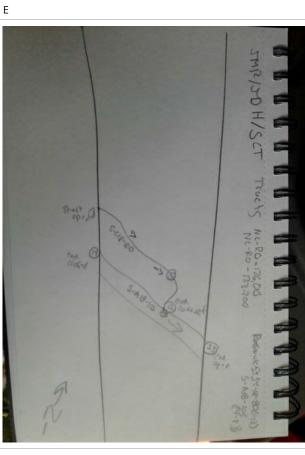
Across stream photo direction 1

W



Across stream photo direction 2

Sketch of Stream



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

S-C18-81

| Created | 2018-06-23 10:11:31 EDT by Jeremy Hummel [Sabal] |
|----------|--|
| Updated | 2018-06-26 10:33:33 EDT by Sam Edmonds |
| Location | 36.0771916, -79.3577918 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| Date | 18/06/23 |
| Date2 | 180623 |
| | |

Resource Crew Info

| Joe Roy, Jeremy Hummel |
|------------------------|
| C18 |
| Joe Roy |
| NA |
| 81 |
| S-C18-81 |
| No |
| esource Series Number |
| |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 34 |
| Calculated Stream Type | Perennial |
| Wildlife Observed | None |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | E |
| 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) | 12 | |
|--------------------------|----|--|
| Average Water Width (ft) | 10 | |
| Bank to Bank (ft) | 16 | |

| Bankfull Width (ft) | 14 |
|---------------------|---------------|
| Probed Stream Depth | 0 to 6 inches |

| Left Bank Height (feet) | 6 |
|-------------------------|------------------------------|
| Left Bank Slope | > 35% (> 20 deg) Very Steep |
| Left Erosion Potential | Low |
| Left Bank Substrate | 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] | 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) | 6 |
|--------------------------|------------------------------|
| Right Bank Slope | > 35% (> 20 deg) Very Steep |
| Right Erosion Potential | Low |
| Right Bank Substrate | Silt-Mud, Organic, 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 | |
| | | |

| 1 07 | |
|------------------------------------|----------|
| 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 | Absent |
| Recent alluvial deposits | Absent |
| Headcuts | Moderate |
| Grade control | Moderate |
| Natural valley | Strong |
| | |

| Second or greater order channel | Yes |
|---------------------------------|------|
| Stream Geomorphology Total | 18.5 |

| Weak |
|----------|
| |
| Absent |
| Weak |
| Moderate |
| Weak |
| Yes |
| 6.5 |
| |

Stream Biology

| Weak | |
|---------------------------------------|--|
| Absent | |
| Weak | |
| Weak | |
| Absent | |
| Moderate | |
| Moderate | |
| Absent | |
| Other | |
| 9 | |
| State Protected, Corps Jurisdictional | |
| | |
| | |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1

Е



Across stream photo direction 1

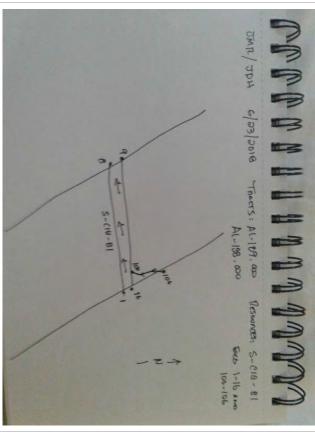
Ν



Across stream photo direction 2

Sketch of Stream

S



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

S-C18-82

| Created | 2018-06-23 14:49:54 UTC by Jeremy Hummel [Sabal] | |
|-------------------|--|--|
| Updated | 2018-09-20 19:35:58 UTC by Susie Gifford (SBG) | |
| Location | 36.0815221, -79.359591 | |
| Status | Finalized & Approved | |
| | NextEra | |
| Client | NextEra | |
| Client Project | NextEra MVP Southgate | |
| | | |

Resource Crew Info

| Field Crew | Joe Roy, Laura Giese, Jeremy Hummel |
|--|-------------------------------------|
| Lead Scientist's Initials | C18 |
| GPS Surveyor | Joe Roy |
| GPS ID | NA |
| Resource Series Number | 82 |
| Resource ID | S-C18-82 |
| Do you need to override the resource id? | No |
| Resource ID = Resource Type - Scientist Initials | - Resource Series Number |
| | |

Stream Inventory

| Stream / Waterbody Type | Intermittent |
|-------------------------|--------------|
| Calculated Stream Score | 22.5 |
| Calculated Stream Type | Intermittent |
| Wildlife Observed | None |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | NW |
| 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) | 3 | |
| Bank to Bank (ft) | 5 | |

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

| 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, Organic, Vegetated | |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 3 |
|--------------------------|--------------------------------|
| Right Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | Low |
| Right Bank Substrate | Silt-Mud, Organic, Vegetated |

Right Bank Riparian Buffer Condition

| 1.2 0 0 |
|---------------|
| |
| 0 |
| |
| 0 |
| 0 |
| 0 |
| 1.2 |
| |

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Weak |
| Particle size of stream substrate | Weak |
| Active or relict floodplain | Moderate |
| Depositional bars or benches | Absent |
| Recent alluvial deposits | Absent |
| Headcuts | Weak |
| Grade control | Moderate |
| Natural valley | Strong |
| | |

| Second or greater order channel | No | |
|---------------------------------|------|--|
| Stream Geomorphology Total | 11.5 | |
| | | |

| Presence of baseflow | Absent |
|--|----------|
| 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 | 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 | Other |
| Stream Biology Total | 6 |
| Regulatory Status | State Protected, Corps Jurisdictional |
| Stream Overview Report Photos | |

Upstream Stream Photo





Downstream photo direction

Across Stream Photo 1



Across stream photo direction 1

Ν



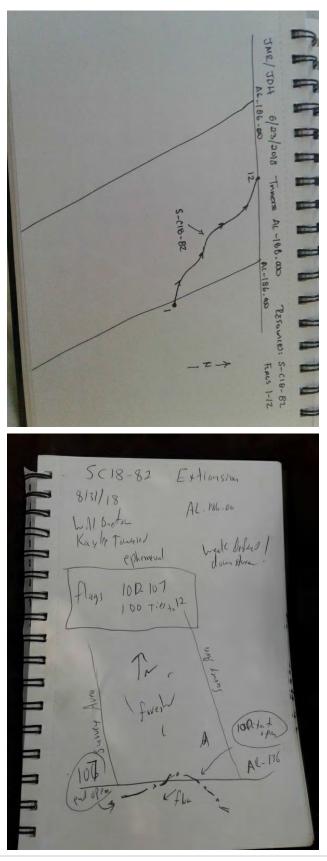
Across stream photo direction 2

Additional Stream Photos

S



Sketch of Stream



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

S-C18-83

| Created | 2018-06-23 15:18:04 UTC by Jeremy Hummel [Sabal] |
|----------|--|
| Updated | 2018-09-20 19:36:10 UTC by Susie Gifford (SBG) |
| Location | 36.0796008, -79.35933 |
| Status | Finalized & Approved |
| Client | NextEra |
| Project | MVP Southgate |
| | 8 |
| Date | 18/06/23 |

Resource Crew Info

| Joe Roy, Jeremy Hummel |
|------------------------|
| C18 |
| Joe Roy |
| NA |
| 83 |
| S-C18-83 |
| No |
| esource Series Number |
| |

Stream Inventory

| Stream / Waterbody Type | Ephemeral |
|-------------------------|-----------|
| Calculated Stream Score | 17.5 |
| Calculated Stream Type | Ephemeral |
| Wildlife Observed | None |
| Observed Use | Drainage |

Stream Conditions

| Water Flow Velocity | Dry or Minimal |
|---------------------|----------------|
| Direction of Flow | NW |
| Channel condition | Suboptimal |
| In stream habitat | Poor |

Channel Alteration

| 0 |
|-----|
| 1.3 |
| 0 |
| 0 |
| 0 |
| 0 |
| 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 |

| Left Bank Height (feet) | 2 | |
|-------------------------|--------------------------------|--|
| Left Bank Slope | 25 to 35% (14 to 20 deg) Steep | |
| Left Erosion Potential | Low | |
| Left Bank Substrate | Silt-Mud, Organic, Vegetated | |

Left Bank Riparian Buffer Condition

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

Right Bank

| Right Bank Height (feet) | 2 |
|--------------------------|--------------------------------|
| Right Bank Slope | 25 to 35% (14 to 20 deg) Steep |
| Right Erosion Potential | Low |
| Right Bank Substrate | Silt-Mud, Organic, 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 | |
| | | |

| 1 07 | |
|------------------------------------|----------|
| Continuity of channel bed and bank | Moderate |
| Sinuosity of channel along thalweg | Moderate |
| In-channel structure | Weak |
| Particle size of stream substrate | Weak |
| Active or relict floodplain | Moderate |
| Depositional bars or benches | Absent |
| Recent alluvial deposits | Absent |
| Headcuts | Weak |
| Grade control | Moderate |
| Natural valley | Strong |
| | |

| Second or greater order channel | No |
|---------------------------------|------|
| Stream Geomorphology Total | 11.5 |

| , ., | |
|--|----------|
| 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 |

Stream Biology

| Fibrous roots in streambed | Weak |
|-----------------------------------|--------|
| Rooted upland plants in streambed | Weak |
| Macrobenthos | Absent |
| Aquatic mullusks | Absent |
| Fish | Absent |
| Crayfish | Absent |
| Amphibians | Weak |
| Algae | Absent |
| Wetland plants in streambed | Other |
| Stream Biology Total | 4.5 |
| Stream Overview Report Photos | |

Upstream Stream Photo



Downstream Stream Photo



Downstream photo direction

Across Stream Photo 1

W



Across stream photo direction 1

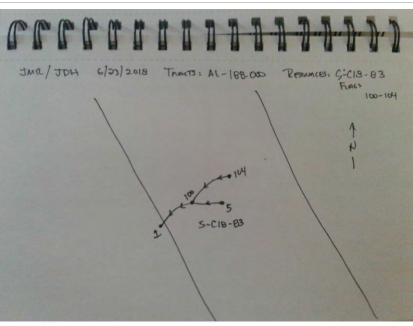
Ν



Across stream photo direction 2

Sketch of Stream

S



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