ATLANTIC COAST PIPELINE, LLC ATLANTIC COAST PIPELINE

VCP Consistency Certification

APPENDIX 5 Wetlands Crossed and Crossing Methods for the Atlantic Coast Pipeline Coastal Zone

| | APPENDIX 5 | | | | | | | | | | | | |
|--------------|---|-------------------------|--------------------------------|------------------------------------|---|--|--|--|------------------------|----------|-----------|--|--|
| | Atlantic Coast Pipeline Project - Commonwealth of Virginia Wetland Crossed and Crossing Methods for the Atlantic Coast Pipeline Coastal Zone | | | | | | | | | | | | |
| | | | | Wetland Crossed and Crossing Metho | ods for the Atlantic | c Coast Pipeline | Coastal Zone | e e | | | | | |
| Mile Post | Hydrologic Unit Code (HUC8) | Feature ID ^a | Cowardin Class ^b | Facilities Crossed | Approximate Crossing Length (feet) ^{c,d} | Temporary Construction Impacts (acres) ^e | Operation Impacts (acres) ^f | Permanent Impacts (acres) ^g | Construction Method | Latitude | Longitude | | |
| 38.6 | 03010202 | wsua006f | PFO | Perm ROW | 209 | 0.00 | 0.00 | 0.00 | HDD | 36.63074 | -76.89056 | | |
| 39.1 | 03010202 | wsua007s | PSS | Perm AR | Not Crossed By Centerline | 0.00 | 0.00 | 0.08 | NA | 36.62944 | -76.88160 | | |
| 39.1 | 03010202 | wsuc010s | PSS | Perm AR | Not Crossed By Centerline | 0.00 | 0.00 | 0.01 | NA | 36.63350 | -76.88303 | | |
| 39.1 | 03010202 | wsua007s | PSS | Perm AR, Perm ROW, Temp ROW | 50 | 0.12 | 0.01 | 0.07 | Open Cut | 36.63287 | -76.88246 | | |
| 39.4 | 03010202 | wsua008f | PFO | Perm ROW, Temp ROW | 44 | 0.16 | 0.03 | 0.00 | Open Cut | 36.63396 | -76.87851 | | |
| 39.4 | 03010202 | wsua008f | PFO | Perm ROW, Temp ROW | 96 | 0.16 | 0.07 | 0.00 | Open Cut | 36.63422 | -76.87823 | | |
| 39.5 | 03010202 | wsua021f | PFO | Perm ROW, Temp ROW | 39 | 0.07 | 0.03 | 0.00 | Open Cut | 36.63440 | -76.87619 | | |
| 39.5 | 03010202 | wsua021f | PFO | Perm ROW, Temp ROW | 234 | 0.40 | 0.16 | 0.00 | Open Cut | 36.63451 | -76.87577 | | |
| 39.6 | 03010202 | wsua021f | PFO | Perm ROW, Temp ROW | 213 | 0.32 | 0.15 | 0.00 | Open Cut | 36.63453 | -76.87481 | | |
| 39.7 | 03010202 | wsua020f | PFO | Perm ROW, Temp ROW | 25 | 0.04 | 0.02 | 0.00 | Open Cut | 36.63430 | -76.87274 | | |
| 39.7 | 03010202 | wsua020f | PFO | Perm ROW, Temp ROW | 12 | 0.02 | 0.01 | 0.00 | Open Cut | 36.63441 | -76.87264 | | |
| 39.7 | 03010202 | wsua019s | PSS | Perm ROW, Temp ROW | 111 | 0.21 | 0.03 | 0.00 | Open Cut | 36.63395 | -76.87196 | | |
| 39.9 | 03010202 | wsua018s | PSS | Perm ROW | 33 | 0.03 | 0.01 | 0.00 | Open Cut | 36.63388 | -76.86949 | | |
| 40.0 | 03010202 | wsua009f | PFO | Perm ROW, Temp ROW | 32 | 0.06 | 0.02 | 0.00 | Open Cut | 36.63350 | -76.86764 | | |
| 40.1 | 03010202 | wsua010f | PFO | Perm ROW, Temp ROW | 62 | 0.11 | 0.05 | 0.00 | Open Cut | 36.63342 | -76.86554 | | |
| 40.1 | 03010202 | wsua010f | PFO | Perm ROW, Temp ROW | 31 | 0.05 | 0.02 | 0.00 | Open Cut | 36.63312 | -76.86534 | | |
| 40.2 | 03010202 | wsua010f | PFO | Perm ROW, Temp ROW | 62 | 0.09 | 0.04 | 0.00 | Open Cut | 36.63374 | -76.86444 | | |
| 40.2 | 03010202 | wsua010f | PFO | Perm ROW, Temp ROW | 38 | 0.10 | 0.03 | 0.00 | Open Cut | 36.63398 | -76.86447 | | |
| 41.0 | 03010202 | wsua072f | PFO | Perm ROW, Temp ROW | 68 | 0.11 | 0.05 | 0.00 | Open Cut | 36.64334 | -76.85867 | | |
| 41.1 | 03010202 | wsua070f | PFO | Perm ROW, Temp ROW | 83 | 0.15 | 0.06 | 0.00 | Open Cut | 36.64518 | -76.85902 | | |
| 41.2 | 03010202 | wsua071f | PFO | Perm ROW, Temp ROW | 490 | 0.80 | 0.34 | 0.00 | Open Cut | 36.64669 | -76.85924 | | |
| 41.4 | 03010202 | wsuo037f | PFO | Perm ROW, Temp ROW | 32 | 0.05 | 0.02 | 0.00 | Open Cut | 36.64960 | -76.85971 | | |
| 41.4 | 03010202 | wsuo037f | PFO | Perm ROW, Temp ROW | 72 | 0.15 | 0.05 | 0.00 | Open Cut | 36.64966 | -76.85935 | | |
| 42.2 | 03010202 | wsuo013f | PFO | Perm ROW, Temp ROW | 89 | 0.11 | 0.06 | 0.00 | Open Cut | 36.65895 | -76.85198 | | |
| 42.3 | 03010202 | wsuo013f | PFO | Perm ROW, Temp ROW | 172 | 0.33 | 0.12 | 0.00 | Open Cut | 36.65935 | -76.85182 | | |
| 42.3 | 03010202 | wsuo013f | PFO | Perm ROW, Temp ROW | 156 | 0.26 | 0.11 | 0.00 | Open Cut | 36.65983 | -76.85190 | | |
| 42.7 | 03010202 | wsuo012f | PFO | Perm ROW, Temp ROW | 107 | 0.18 | 0.07 | 0.00 | Open Cut | 36.66465 | -76.85134 | | |
| 43.1 | 03010202 | wsup030e | PEM | Perm ROW, Temp ROW | 11 | 0.04 | 0.00 | 0.00 | Open Cut | 36.66732 | -76.84521 | | |
| 43.7 | 03010202 | wsup014e | PEM | Perm ROW | 26 | 0.02 | 0.00 | 0.00 | Open Cut | 36.66765 | -76.83474 | | |
| 43.7 | 03010202 | wsup014f | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.02 | 0.00 | 0.00 | Open Cut | 36.66812 | -76.83434 | | |

| | APPENDIX 5 (cont'd) | | | | | | | | | | | |
|---|-----------------------------------|-------------------------|----------|----------------------------------|------------------------------|--|----------------------|----------------------|------------------------|----------|-----------|--|
| | | | | Atlantic Coast Pipeline | Project - Commonw | ealth of Virgini | я | | | | | |
| | | | | Wetland Crossed and Crossing Met | hods for the Atlantic | Coast Pipeline | Coastal Zone | | | | | |
| Mile | Hydrologic Unit Code (HUC8) | Feature ID ^a | Cowardin | Facilities Crossed | Approximate Crossing | Temporary Construction Impacts (acres) ^e | Operation Impacts | Permanent Impacts | Construction Method | Latitude | Longitude | |
| 13.8 | 03010202 | wsup013e | PEM | Perm ROW Temp ROW | 490 | 0.76 | 0.00 | 0.00 | Open Cut | 36 66810 | -76 82977 | |
| 43.9 | 03010202 | wsup013c wsup013f | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.27 | 0.08 | 0.00 | Open Cut | 36.66825 | -76.83005 | |
| 43.9 | 03010202 | wsup013f | PFO | Perm ROW, Temp ROW | 94 | 0.18 | 0.07 | 0.00 | Open Cut | 36.66791 | -76.82988 | |
| 44.0 | 03010202 | wsup013f | PFO | Perm ROW, Temp ROW | 200 | 0.22 | 0.12 | 0.00 | Open Cut | 36.66790 | -76.82869 | |
| 44.0 | 03010202 | wsup013f | PFO | Perm ROW | 184 | 0.13 | 0.08 | 0.00 | Open Cut | 36.66852 | -76.82798 | |
| 44.2 | 03010202 | wsup026e | PEM | Perm ROW, Temp ROW | 483 | 0.75 | 0.00 | 0.00 | Open Cut | 36.66857 | -76.82493 | |
| 44.2 | 03010202 | wsup026f | PFO | Perm ROW | Not Crossed By Centerline | 0.12 | 0.04 | 0.00 | Open Cut | 36.66882 | -76.82539 | |
| 44.3 | 03010202 | wsup026f | PFO | Perm ROW | Not Crossed By Centerline | 0.04 | 0.02 | 0.00 | Open Cut | 36.66882 | -76.82419 | |
| 44.5 03010202 wsup025f PFO Perm ROW, Temp ROW 336 0.64 0.25 0.00 Open Cut 36.66751 -76. | | | | | | | | | | | | |
| 44.6 | 03010202 | wsup025f | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.05 | 0.00 | 0.00 | NA | 36.66735 | -76.81931 | |
| 44.6 | 03010202 | wsup025e | PEM | Perm ROW, Temp ROW | 31 | 0.04 | 0.00 | 0.00 | Open Cut | 36.66755 | -76.81893 | |
| 44.6 | 03010202 | wsup025e | PEM | Surv Corr, Temp ROW | Not Crossed By Centerline | 0.01 | 0.00 | 0.00 | NA | 36.66730 | -76.81885 | |
| 44.6 | 03010202 | wsuo017f | PFO | Perm ROW, Temp ROW | 287 | 0.47 | 0.20 | 0.00 | Open Cut | 36.66744 | -76.81820 | |
| 45.1 | 03010202 | wsuo020f | PFO | Perm ROW, Temp ROW | 62 | 0.11 | 0.04 | 0.00 | Open Cut | 36.66759 | -76.80866 | |
| 45.1 | 03010202 | wsuo020f | PFO | Perm ROW, Temp ROW | 28 | 0.06 | 0.02 | 0.00 | Open Cut | 36.66793 | -76.80887 | |
| 45.5 | 03010202 | wsua076f | PFO | Perm ROW, Temp ROW | 562 | 0.98 | 0.39 | 0.00 | Open Cut | 36.67003 | -76.80151 | |
| 45.6 | 03010202 | wsua076e | PEM | Perm ROW | 82 | 0.12 | 0.00 | 0.00 | Open Cut | 36.67069 | -76.80060 | |
| 46.1 | 03010202 | wsua074e | PEM | Perm ROW, Temp ROW | 2 | 0.00 | 0.00 | 0.00 | Open Cut | 36.66814 | -76.79313 | |
| 46.1 | 03010202 | wsua074e | PEM | Perm ROW, Temp ROW | 11 | 0.02 | 0.00 | 0.00 | Open Cut | 36.66808 | -76.79313 | |
| 46.2 | 03010202 | wsua073f | PFO | Perm ROW, Temp ROW | 1525 | 2.65 | 1.05 | 0.00 | Open Cut | 36.66664 | -76.78840 | |
| 46.5 | 03010203 | wsuc101f | PFO | Perm ROW, Temp ROW | 2347 | 4.03 | 1.60 | 0.00 | Open Cut | 36.66875 | -76.78146 | |
| 47.0 | 03010203 | wsuc101e | PEM | Perm ROW, Temp ROW | 72 | 0.12 | 0.00 | 0.00 | Open Cut | 36.67046 | -76.77768 | |
| 47.0 | 03010203 | wsuc101f | PFO | Perm ROW, Temp ROW | 118 | 0.19 | 0.08 | 0.00 | Open Cut | 36.67083 | -76.77795 | |
| 47.0 | 03010203 | wsuc101f | PFO | Perm ROW, Temp ROW | 783 | 1.37 | 0.54 | 0.00 | Open Cut | 36.67155 | -76.77650 | |
| 47.2 | 03010203 | wsuc101s | PSS | Perm ROW, Temp ROW | 332 | 0.58 | 0.08 | 0.00 | Open Cut | 36.67259 | -76.77501 | |
| 47.3 | 03010203 | wsuc100f | PFO | Perm ROW, Temp ROW | 235 | 0.41 | 0.16 | 0.00 | Open Cut | 36.67342 | -76.77408 | |
| 47.3 | 03010203 | wsuc100s | PSS | Perm ROW, Temp ROW | 281 | 0.46 | 0.06 | 0.00 | Open Cut | 36.67389 | -76.77371 | |
| 47.4 | 03010203 | wsuc100f | PFO | Perm ROW, Temp ROW | 604 | 1.02 | 0.42 | 0.00 | Open Cut | 36.67443 | -76.77232 | |
| 47.5 | 03010203 | wsuc005f | PFO | Perm ROW, Temp ROW | 801 | 2.25 | 0.57 | 0.00 | Open Cut | 36.67468 | -76.76670 | |
| 47.6 | 03010203 | wsuc005s | PSS | Perm ROW, Temp ROW | 1556 | 1.79 | 0.36 | 0.00 | Open Cut | 36.67508 | -76.76663 | |

| | APPENDIX 5 (cont'd) | | | | | | | | | | | |
|------|---|-------------------------|----------|------------------------------------|---|--|--|--|------------------------|----------|-----------|--|
| | Atlantic Coast Pipeline Project - Commonwealth of Virginia | | | | | | | | | | | |
| | | | | Wetland Crossed and Crossing Metho | ods for the Atlantic | Coast Pipeline | Coastal Zone | | | | | |
| Mile | Hydrologic Unit Code (HUC8) | Feature ID ^a | Cowardin | Facilities Crossed | Approximate Crossing Length (feet) ^{c,d} | Temporary Construction Impacts (acres) ^e | Operation Impacts (acres) ^f | Permanent Impacts (acres) ^g | Construction Method | Latitude | Longitude | |
| 48.1 | 03010203 | wsuc006e | PEM | Perm ROW | 293 | 0.20 | 0.00 | 0.00 | Open Cut | 36 67484 | -76 76031 | |
| 48.1 | 03010203 | wsuc006f | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.28 | 0.07 | 0.00 | Open Cut | 36.67454 | -76.76012 | |
| 48.6 | 03010203 | wsuc007e | PEM | Perm ROW, Temp ROW | 470 | 0.78 | 0.00 | 0.00 | Open Cut | 36.67517 | -76.75134 | |
| 49.3 | 03010203 | nwi_va_b_047 | PFO | Perm ROW, Temp ROW | 241 | 0.41 | 0.17 | 0.00 | Open Cut | 36.67882 | -76.74082 | |
| 49.4 | 03010203 | nwi_va_b_048 | PFO | Perm ROW, Temp ATWS, Temp ROW | 800 | 1.45 | 0.55 | 0.00 | Open Cut | 36.67948 | -76.73758 | |
| 49.6 | 03010203 | wsuo027f | PFO | Perm ROW, Temp ROW | 218 | 0.33 | 0.15 | 0.00 | Open Cut | 36.68003 | -76.73546 | |
| 49.7 | 03010203 | wsuo027e | PEM | Perm ROW, Temp ROW | 141 | 0.24 | 0.00 | 0.00 | Open Cut | 36.68066 | -76.73439 | |
| 49.7 | 03010203 | wsuo027f | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.01 | 0.00 | 0.00 | NA | 36.68057 | -76.73390 | |
| 49.7 | 03010203 | wsuo027f | PFO | Perm ROW, Temp ROW | 28 | 0.03 | 0.02 | 0.00 | Open Cut | 36.68098 | -76.73440 | |
| 49.8 | 9.8 03010203 wsuo026f PFO Perm ROW, Temp ROW 113 0.23 0.08 0.00 Open Cut 36.68258 -76.73267 | | | | | | | | | | | |
| 49.9 | 03010203 | wsuo026f | PFO | Perm ROW, Temp ROW | 76 | 0.16 | 0.06 | 0.00 | Open Cut | 36.68298 | -76.73283 | |
| 50.0 | 03010203 | wsuo025f | PFO | Perm ROW, Temp ROW | 1167 | 2.04 | 0.84 | 0.00 | Open Cut | 36.68463 | -76.73219 | |
| 50.4 | 03010203 | wsuo024f | PFO | Surv Corr, Temp ROW | Not Crossed By Centerline | 0.01 | 0.00 | 0.00 | NA | 36.69044 | -76.73346 | |
| 50.5 | 03010203 | wsuo024f | PFO | Perm ROW, Temp ROW | 56 | 0.08 | 0.04 | 0.00 | Open Cut | 36.69202 | -76.73551 | |
| 50.5 | 03010203 | wsuo024f | PFO | Perm ROW, Temp ROW | 25 | 0.06 | 0.02 | 0.00 | Open Cut | 36.69155 | -76.73466 | |
| 50.8 | 03010203 | wsuo022f | PFO | Perm ROW, Temp ROW | 2402 | 4.11 | 1.66 | 0.00 | Open Cut | 36.69992 | -76.73600 | |
| 51.4 | 03010203 | wsuo023f | PFO | Perm ROW, Temp ROW | 866 | 1.64 | 0.60 | 0.00 | Open Cut | 36.70440 | -76.73129 | |
| 52.1 | 03010203 | wsup037f | PFO | Perm ROW, Temp ROW | 142 | 0.24 | 0.10 | 0.00 | Open Cut | 36.71097 | -76.72322 | |
| 52.3 | 03010203 | wsup021f | PFO | Perm ROW, Temp ROW | 420 | 0.76 | 0.29 | 0.00 | Open Cut | 36.71205 | -76.72016 | |
| 52.6 | 03010203 | wsup024s | PSS | Perm ROW, Temp ROW | 59 | 0.09 | 0.01 | 0.00 | Open Cut | 36.71440 | -76.71601 | |
| 52.6 | 03010203 | wsup024s | PSS | Perm ROW, Temp ROW | 112 | 0.22 | 0.03 | 0.00 | Open Cut | 36.71404 | -76.71581 | |
| 52.6 | 03010203 | wsup024s | PSS | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.00 | 0.00 | 0.00 | Open Cut | 36.71442 | -76.71576 | |
| 52.6 | 03010203 | wsup024f | PFO | Perm ROW, Temp ROW | 90 | 0.15 | 0.06 | 0.00 | Open Cut | 36.71452 | -76.71562 | |
| 52.7 | 03010203 | wsup023f | PFO | Perm ROW, Temp ROW | 259 | 0.43 | 0.18 | 0.00 | Open Cut | 36.71537 | -76.71352 | |
| 52.8 | 03010203 | wsup022f | PFO | Perm ROW, Temp ROW | 1350 | 2.31 | 0.93 | 0.00 | Open Cut | 36.71773 | -76.71146 | |
| 53.0 | 02080208 | wsup022s | PSS | Perm ROW, Temp AR, Temp ROW | 2744 | 5.53 | 0.63 | 0.00 | Open Cut | 36.72339 | -76.70783 | |
| 53.3 | 02080208 | nwi_va_h_005 | PSS | Temp AR | Not Crossed By Centerline | 0.18 | 0.00 | 0.00 | NA | 36.72053 | -76.70535 | |
| 53.6 | 02080208 | wsuo039f | PFO | Perm ROW, Temp ROW | 21 | 0.03 | 0.01 | 0.00 | Open Cut | 36.72552 | -76.70640 | |
| 53.9 | 02080208 | wsup027s | PSS | Perm ROW, Temp ROW | 2052 | 3.46 | 0.47 | 0.00 | Open Cut | 36.73249 | -76.70288 | |

| | APPENDIX 5 (cont'd) | | | | | | | | | | | |
|--------------|---|-------------------------|--------------------------------|----------------------------------|---|--|--|--|------------------------|----------|-----------|--|
| | Atlantic Coast Pipeline Project - Commonwealth of Virginia Wetland Crossing Methods for the Atlantic Coast Pipeline Coastal Zone | | | | | | | | | | | |
| | | | | Wetland Crossed and Crossing Met | thods for the Atlantic | Coast Pipeline | Coastal Zone | | | | | |
| Mile Post | Hydrologic Unit Code (HUC8) | Feature ID ^a | Cowardin Class ^b | Facilities Crossed | Approximate Crossing Length (feet) ^{c,d} | Temporary Construction Impacts (acres) ^e | Operation Impacts (acres) ^f | Permanent Impacts (acres) ^g | Construction Method | Latitude | Longitude | |
| 54.4 | 02080208 | wsup028s | PSS | Perm ROW, Temp ROW | 359 | 0.63 | 0.08 | 0.00 | Open Cut | 36.73686 | -76.69996 | |
| 54.5 | 02080208 | wsup028f | PFO | Perm ROW, Temp ROW | 85 | 0.14 | 0.06 | 0.00 | Open Cut | 36.73747 | -76.69964 | |
| 54.6 | 02080208 | wsup029f | PFO | Perm ROW, Temp ROW | 203 | 0.35 | 0.14 | 0.00 | Open Cut | 36.73841 | -76.69868 | |
| 54.6 | 02080208 | nwi_va_n_006 | PFO | Perm ROW, Temp ROW | 32 | 0.05 | 0.02 | 0.00 | Open Cut | 36.73868 | -76.69848 | |
| 54.6 | 02080208 | wsur007f | PFO | Perm ROW, Temp ROW | 49 | 0.07 | 0.03 | 0.00 | Open Cut | 36.73915 | -76.69842 | |
| 54.7 | 02080208 | wsur008f | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.07 | 0.00 | 0.00 | Open Cut | 36.73996 | -76.69705 | |
| 54.9 | 02080208 | wsuo047f | PFO | Perm ROW, Temp ROW | 795 | 1.36 | 0.55 | 0.00 | Open Cut | 36.74368 | -76.69457 | |
| 55.1 | 02080208 | wsuo046f | PFO | Perm ROW, Temp ROW | 145 | 0.30 | 0.10 | 0.00 | Open Cut | 36.74525 | -76.69307 | |
| 55.2 | 02080208 | wsuo046e | PEM | Perm ROW, Temp ROW | 21 | 0.02 | 0.00 | 0.00 | Open Cut | 36.74560 | -76.69321 | |
| 55.2 | 02080208 | wsuo045f | PFO | Perm ROW, Temp ROW | 319 | 0.57 | 0.21 | 0.00 | Open Cut | 36.74686 | -76.69195 | |
| 55.4 | 02080208 | wsuo044f | PFO | Perm ROW, Temp ROW | 13 | 0.02 | 0.01 | 0.00 | Open Cut | 36.74816 | -76.69132 | |
| 55.4 | 02080208 | wsuo044f | PFO | Perm ROW, Temp ROW | 34 | 0.06 | 0.02 | 0.00 | Open Cut | 36.74801 | -76.69105 | |
| 56.1 | 02080208 | wsup032f | PFO | Perm ROW, Temp ROW | 856 | 1.42 | 0.59 | 0.00 | Open Cut | 36.75866 | -76.68729 | |
| 56.3 | 02080208 | wsup032f | PFO | Perm ROW, Temp ROW | 143 | 0.22 | 0.09 | 0.00 | Open Cut | 36.76052 | -76.68665 | |
| 56.3 | 02080208 | wsup033f | PFO | Perm ROW, Temp ROW | 76 | 0.11 | 0.04 | 0.00 | Open Cut | 36.76092 | -76.68609 | |
| 56.4 | 02080208 | wsup034e | PEM | Perm ROW, Temp ROW | 21 | 0.05 | 0.00 | 0.00 | Open Cut | 36.76250 | -76.68517 | |
| 56.4 | 02080208 | wsup034e | PEM | Perm ROW, Temp ROW | 131 | 0.23 | 0.00 | 0.00 | Open Cut | 36.76258 | -76.68490 | |
| 56.6 | 02080208 | wsup035f | PFO | Perm ROW | Not Crossed By Centerline | 0.01 | 0.00 | 0.00 | Open Cut | 36.76448 | -76.68251 | |
| 56.7 | 02080208 | wsup035f | PFO | Perm ROW, Temp ROW | 80 | 0.11 | 0.06 | 0.00 | Open Cut | 36.76460 | -76.68200 | |
| 57.4 | 02080208 | wsup038f | PFO | Perm ROW, Temp ROW | 135 | 0.24 | 0.09 | 0.00 | Open Cut | 36.77239 | -76.67328 | |
| 57.5 | 02080208 | wsuo032f | PFO | Perm ROW, Temp ROW | 441 | 0.79 | 0.31 | 0.00 | Open Cut | 36.77382 | -76.67084 | |
| 57.9 | 02080208 | wsuo033f | PFO | Perm ROW, Temp ROW | 465 | 0.78 | 0.32 | 0.00 | Open Cut | 36.77693 | -76.66504 | |
| 59.3 | 02080208 | wsuo034f | PFO | Perm ROW, Temp ROW | 37 | 0.05 | 0.03 | 0.00 | Open Cut | 36.79041 | -76.64911 | |
| 59.3 | 02080208 | wsuo034f | PFO | Surv Corr, Temp ROW | Not Crossed By Centerline | 0.01 | 0.00 | 0.00 | NA | 36.79011 | -76.64914 | |
| 59.4 | 02080208 | wsuo035f | PFO | Perm ROW, Temp ROW | 63 | 0.09 | 0.04 | 0.00 | Open Cut | 36.79042 | -76.64789 | |
| 59.4 | 02080208 | wsuo035f | PFO | Perm ROW, Temp ROW | 44 | 0.11 | 0.04 | 0.00 | Open Cut | 36.79019 | -76.64745 | |
| 59.4 | 02080208 | wsuo035f | PFO | Perm ROW | 37 | 0.04 | 0.02 | 0.00 | Open Cut | 36.79040 | -76.64756 | |
| 62.7 | 02080208 | wsuo041f | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.00 | 0.00 | 0.00 | NA | 36.79386 | -76.59229 | |
| 62.7 | 02080208 | wsuo041f | PFO | Perm ROW, Temp ROW | 3 | 0.02 | 0.00 | 0.00 | Open Cut | 36.79351 | -76.59243 | |
| 62.7 | 02080208 | wsuo041f | PFO | Perm ROW, Temp ROW | 21 | 0.04 | 0.01 | 0.00 | Open Cut | 36.79397 | -76.59221 | |

| | | | | APPE | NDIX 5 (cont'd) | | | | | | | | | |
|--------------|--|---------------------------|--------------------------------|-------------------------------|---|--|--|--|------------------------|----------|-----------|--|--|--|
| | Atlantic Coast Pipeline Project - Commonwealth of Virginia Wetland Crossed and Crossing Methods for the Atlantic Coast Pipeline Coastal Zone | | | | | | | | | | | | | |
| Mile Post | Hydrologic Unit Code (HUC8) | Feature ID ^a | Cowardin Class ^b | Facilities Crossed | Approximate Crossing Length (feet) ^{c,d} | Temporary Construction Impacts (acres) ^e | Operation Impacts (acres) ^f | Permanent Impacts (acres) ^g | Construction Method | Latitude | Longitude | | | |
| 63.0 | 02080208 | wsuo042f | PFO | Perm ROW, Temp ROW | 52 | 0.11 | 0.04 | 0.00 | Open Cut | 36.79262 | -76.58830 | | | |
| 63.0 | 02080208 | wsuo042f | PFO | Perm ROW, Temp ROW | 32 | 0.05 | 0.02 | 0.00 | Open Cut | 36.79301 | -76.58806 | | | |
| 63.6 | 02080208 | wsup015f ^h | PFO | Perm ROW | 50 | 0.00 | 0.00 | 0.00 | HDD | 36.79177 | -76.57761 | | | |
| 63.6 | 02080208 | wsup015e ^h | PEM | Perm ROW | 20 | 0.00 | 0.00 | 0.00 | HDD | 36.79204 | -76.57730 | | | |
| 63.6 | 02080208 | nwi_va_c_001 ^h | E2E | Perm ROW | 1938 | 0.00 | 0.00 | 0.00 | HDD | 36.79306 | -76.57342 | | | |
| 64.0 | 02080208 | wsup018e ^h | PEM | Perm ROW | 50 | 0.00 | 0.00 | 0.00 | HDD | 36.79363 | -76.56992 | | | |
| 64.2 | 02080208 | nwi_va_h_006 | E2EM | Perm AR | Not Crossed By Centerline | 0.00 | 0.00 | 0.12 | NA | 36.79588 | -76.56658 | | | |
| 64.2 | 02080208 | nwi_va_h_007 | E2EM | Perm AR | Not Crossed By Centerline | 0.00 | 0.00 | 0.26 | NA | 36.79801 | -76.56637 | | | |
| 64.3 | 02080208 | wsup016e ^h | PEM | Perm ROW | 37 | 0.00 | 0.00 | 0.00 | HDD | 36.79477 | -76.56559 | | | |
| 64.3 | 3 02080208 $nwi_va_c_002^h$ E2E Perm ROW 297 0.00 0.00 HDD 36.79474 -76.56430 4 02080208 $nwi_va_c_002^h$ E2U Perm ROW 1864 0.00 0.00 HDD 26.756016 | | | | | | | | | | | | | |
| 64.4 | 02080208 | nwi_va_c_005 ^h | E2U | Perm ROW | 1864 | 0.00 | 0.00 | 0.00 | HDD | 36.79509 | -76.55916 | | | |
| 64.8 | 02080208 | wsuc112e ^h | PEM | Perm ROW | 349 | 0.00 | 0.00 | 0.00 | HDD | 36.79533 | -76.55529 | | | |
| 66.1 | 02080208 | wsuo043e | PEM | Perm ROW, Temp ROW | 711 | 0.63 | 0.00 | 0.00 | Open Cut | 36.78912 | -76.53238 | | | |
| 66.2 | 02080208 | wsuo043f | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.67 | 0.06 | 0.00 | Open Cut | 36.78885 | -76.53283 | | | |
| 66.3 | 02080208 | wsuo018e | PEM | Perm ROW | 3487 | 2.50 | 0.00 | 0.00 | Open Cut | 36.78661 | -76.52609 | | | |
| 66.3 | 02080208 | wsuo018f | PFO | Temp AR | Not Crossed By Centerline | 0.11 | 0.00 | 0.00 | NA | 36.78641 | -76.53265 | | | |
| 66.3 | 02080208 | wsuo018f | PFO | Temp AR | Not Crossed By Centerline | 0.14 | 0.00 | 0.00 | NA | 36.78664 | -76.53204 | | | |
| 66.3 | 02080208 | wsuo018f | PFO | Temp AR | Not Crossed By Centerline | 0.00 | 0.00 | 0.00 | NA | 36.78673 | -76.53167 | | | |
| 66.4 | 02080208 | wsuo018f | PFO | Perm ROW, Temp AR, Temp ROW | Not Crossed By Centerline | 0.74 | 0.00 | 0.00 | Open Cut | 36.78736 | -76.53053 | | | |
| 66.7 | 02080208 | wsuo018s | PSS | Perm ROW, Temp AR, Temp ROW | Not Crossed By Centerline | 3.03 | 0.00 | 0.00 | Open Cut | 36.78590 | -76.52547 | | | |
| 67.0 | 02080208 | wsuo019e | PEM | Perm ROW | 2181 | 1.82 | 0.00 | 0.00 | Open Cut | 36.78079 | -76.51543 | | | |
| 67.2 | 02080208 | wsuo019s | PSS | Perm ROW, Temp ROW | 1066 | 3.75 | 0.29 | 0.00 | Open Cut | 36.78039 | -76.51580 | | | |
| 68.1 | 02080208 | wsup020e | PEM | Perm ROW | 2259 | 0.27 | 0.00 | 0.00 | Open Cut | 36.76760 | -76.50890 | | | |
| 68.5 | 02080208 | nwi_va_o_002 | PEM | Perm ROW, Temp ATWS, Temp ROW | 793 | 1.26 | 0.00 | 0.00 | Open Cut | 36.76580 | -76.50369 | | | |
| 68.6 | 02080208 | nwi_va_o_003 | PSS | Temp ATWS, Temp ROW | Not Crossed By Centerline | 0.13 | 0.00 | 0.00 | NA | 36.76454 | -76.50605 | | | |

| | APPENDIX 5 (cont'd) | | | | | | | | | | | | | |
|--------------|---|-------------------------|--------------------------------|------------------------------------|---|--|--|--|------------------------|----------|-----------|--|--|--|
| | | | | Atlantic Coast Pipeline P | roiect - Commonw | ealth of Virgini | a | | | | | | | |
| | | | | Wetland Crossed and Crossing Metho | ds for the Atlantic | c Coast Pipeline | Coastal Zone | | | | | | | |
| Mile Post | Hydrologic Unit Code (HUC8) | Feature ID ^a | Cowardin Class ^b | Facilities Crossed | Approximate Crossing Length (feet) ^{c,d} | Temporary Construction Impacts (acres) ^e | Operation Impacts (acres) ^f | Permanent Impacts (acres) ^g | Construction Method | Latitude | Longitude | | | |
| 68.8 | 02080208 | nwi_va_o_004 | PFO | Temp ROW | Not Crossed | 0.34 | 0.00 | 0.00 | NA | 36.76571 | -76.50236 | | | |
| 69.0 | 02080208 | nwi_va_o_005 | PFO | Perm ROW | By Centerline Not Crossed By Centerline | 0.15 | 0.05 | 0.00 | Open Cut | 36.76712 | -76.49953 | | | |
| 69.0 | 02080208 | nwi_va_o_006 | PSS | Temp ROW | Not Crossed By Centerline | 0.08 | 0.00 | 0.00 | NA | 36.76676 | -76.49904 | | | |
| 69.2 | 02080208 | nwi_va_o_007 | PFO | Perm ROW | Not Crossed By Centerline | 0.50 | 0.20 | 0.00 | Open Cut | 36.76825 | -76.49602 | | | |
| 69.8 | 02080208 | nwi_va_o_010 | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 6.88 | 1.13 | 0.00 | Open Cut | 36.77090 | -76.48615 | | | |
| 70.3 | 3 02080208 nwi_va_o_012 PEM Perm ROW Not Crossed 0.03 0.00 0.00 NA 36.77360 -76.47919 By Centerline 5 02080208 nwi_va_o_012 PEM Perm ROW Not Crossed 0.00 0.00 0.00 NA 36.77507 -76.47458 | | | | | | | | | | | | | |
| 70.5 | 02080208 | nwi_va_o_012 | PEM | Perm ROW | Not Crossed By Centerline | 0.00 | 0.00 | 0.00 | NA | 36.77507 | -76.47458 | | | |
| 70.6 | 02080208 | nwi_va_o_010 | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.05 | 0.00 | 0.00 | Open Cut | 36.77463 | -76.47422 | | | |
| 70.6 | 02080208 | nwi_va_o_013 | PFO | Perm ROW, Temp ROW | 2194 | 3.70 | 1.51 | 0.00 | Open Cut | 36.77505 | -76.47098 | | | |
| 71.1 | 02080208 | wsuo011f | PFO | Perm ROW, Temp ROW | 419 | 0.00 | 0.00 | 0.00 | HDD | 36.77079 | -76.46665 | | | |
| 71.2 | 02080208 | wsuo011e | PEM | Perm ROW, Temp ROW | 22 | 0.00 | 0.00 | 0.00 | HDD | 36.77048 | -76.46551 | | | |
| 71.8 | 02080208 | wchr002f | PFO | Perm ROW, Temp ROW | 7177 | 10.57 | 4.88 | 0.00 | Open Cut | 36.76925 | -76.44501 | | | |
| 71.8 | 02080208 | wchr002e | PEM | Temp ROW | Not Crossed By Centerline | 0.02 | 0.00 | 0.00 | NA | 36.76869 | -76.45659 | | | |
| 71.8 | 02080208 | wchr002f | PFO | Temp ROW | Not Crossed By Centerline | 0.02 | 0.00 | 0.00 | NA | 36.76869 | -76.45659 | | | |
| 73.1 | 02080208 | wchr002e | PEM | Perm ROW, Temp ROW | 99 | 1.92 | 0.00 | 0.00 | Open Cut | 36.76884 | -76.44550 | | | |
| 73.1 | 02080208 | wchr002f | PFO | Perm ROW, Temp ROW | 1681 | 2.88 | 1.16 | 0.00 | Open Cut | 36.76666 | -76.43115 | | | |
| 73.5 | 02080208 | wchr002e | PEM | Perm ROW, Temp ROW | 240 | 0.41 | 0.00 | 0.00 | Open Cut | 36.76456 | -76.42900 | | | |
| 73.5 | 02080208 | wchr002f | PFO | Perm ROW, Temp ROW | 586 | 1.03 | 0.40 | 0.00 | Open Cut | 36.76382 | -76.42820 | | | |
| 73.6 | 02080208 | wchr002f | PFO | Perm ROW, Temp ROW | 245 | 0.42 | 0.17 | 0.00 | Open Cut | 36.76307 | -76.42705 | | | |
| 73.7 | 02080208 | wchr002f | PFO | Perm ROW, Temp ROW | 1431 | 2.47 | 0.98 | 0.00 | Open Cut | 36.76157 | -76.42484 | | | |
| 74.0 | 02080208 | wchr002f | PFO | Perm ROW, Temp AR, Temp ROW | 1885 | 3.34 | 1.30 | 0.00 | Open Cut | 36.75849 | -76.42036 | | | |
| 74.1 | 02080208 | wchr002f | PFO | Temp AR | Not Crossed By Centerline | 0.10 | 0.00 | 0.00 | NA | 36.76064 | -76.41979 | | | |
| 74.1 | 02080208 | wchr002f | PFO | Temp AR | Not Crossed By Centerline | 0.06 | 0.00 | 0.00 | NA | 36.76089 | -76.41826 | | | |

| | | | | APPE | NDIX 5 (cont'd) | | | | | | | |
|--------------|---|-------------------------|--------------------------------|------------------------------------|---|--|--|--|------------------------|----------|-----------|--|
| | Atlantic Coast Pipeline Project - Commonwealth of Virginia Wetland Crossed and Crossing Methods for the Atlantic Coast Pipeline Coastal Zone | | | | | | | | | | | |
| | | | | Wetland Crossed and Crossing Metho | ods for the Atlantic | c Coast Pipeline | Coastal Zone | | | | | |
| Mile Post | Hydrologic Unit Code (HUC8) | Feature ID ^a | Cowardin Class ^b | Facilities Crossed | Approximate Crossing Length (feet) ^{c,d} | Temporary Construction Impacts (acres) ^e | Operation Impacts (acres) ^f | Permanent Impacts (acres) ^g | Construction Method | Latitude | Longitude | |
| 74.2 | 02080208 | wchr002f | PFO | Temp AR | Not Crossed By Centerline | 0.08 | 0.00 | 0.00 | NA | 36.76138 | -76.41487 | |
| 74.3 | 02080208 | wchr002f | PFO | Perm AR, Perm ROW, Temp ROW | 3853 | 6.63 | 2.65 | 0.05 | Open Cut | 36.75594 | -76.41188 | |
| 74.7 | 02080208 | wchr002f | PFO | Temp AR | Not Crossed By Centerline | 0.02 | 0.00 | 0.00 | NA | 36.76170 | -76.41260 | |
| 74.8 | 02080208 | wchr002f | PFO | Temp AR | Not Crossed By Centerline | 0.00 | 0.00 | 0.00 | NA | 36.76191 | -76.41130 | |
| 75.0 | 02080208 | wchr002f | PFO | Temp AR | Not Crossed By Centerline | 0.09 | 0.00 | 0.15 | NA | 36.76233 | -76.40858 | |
| 75.0 | 02080208 | wchr002f | PFO | Perm AR | Not Crossed By Centerline | 0.00 | 0.00 | 0.00 | NA | 36.75853 | -76.40617 | |
| 75.1 | 75.1 02080208 wchr002f PFO Perm AR Not Crossed 0.00 0.02 NA 36.76145 -76.4 By Centerline By Cen | | | | | | | | | | | |
| 75.1 | 02080208 | wchc003s | PSS | Perm AR | Not Crossed By Centerline | 0.00 | 0.00 | 0.07 | NA | 36.76330 | -76.40727 | |
| 75.1 | 02080208 | wchr001f | PFO | Perm AR, Perm ROW, Temp ROW | 4845 | 7.90 | 3.33 | 0.18 | Open Cut | 36.75852 | -76.39748 | |
| 75.1 | 02080208 | wchr001f | PFO | Perm AR | Not Crossed By Centerline | 0.00 | 0.00 | 0.07 | NA | 36.76145 | -76.40642 | |
| 76.0 | 02080208 | nwi_va_i_008 | PFO | Perm ROW, Temp ATWS, Temp ROW | 233 | 0.42 | 0.16 | 0.00 | Open Cut | 36.75894 | -76.38824 | |
| 76.2 | 02080208 | nwi_va_o_014 | PEM | Perm ROW | 229 | 0.26 | 0.00 | 0.00 | Open Cut | 36.75816 | -76.38674 | |
| 76.3 | 02080208 | nwi_va_o_015 | PFO | Perm ROW | 1410 | 1.62 | 0.97 | 0.00 | Open Cut | 36.75893 | -76.38433 | |
| 76.4 | 02080208 | wcho001f | PFO | Perm ROW | 2023 | 2.26 | 1.37 | 0.00 | Open Cut | 36.76033 | -76.37965 | |
| 76.9 | 02080208 | wchc002f | PFO | Perm ROW | 179 | 0.20 | 0.12 | 0.00 | Open Cut | 36.76161 | -76.37255 | |
| 77.1 | 02080208 | wchc001f | PFO | Perm ROW, Temp ROW | 54 | 0.11 | 0.04 | 0.00 | Open Cut | 36.76191 | -76.37050 | |
| 77.3 | 02080208 | wcho002f | PFO | Perm ROW, Temp ROW | 8 | 0.07 | 0.01 | 0.00 | Open Cut | 36.76243 | -76.36608 | |
| 77.4 | 02080208 | wcho004f | PFO | Perm ROW, Temp ROW | 84 | 0.19 | 0.06 | 0.00 | Open Cut | 36.76238 | -76.36545 | |
| 77.4 | 02080208 | wcho004f | PFO | Perm ROW, Temp ROW | 49 | 0.09 | 0.03 | 0.00 | Open Cut | 36.76208 | -76.36514 | |
| 77.9 | 02080208 | wcho011e3 | PEM | Perm ROW, Temp ROW | 21 | 0.00 | 0.00 | 0.00 | HDD | 36.76137 | -76.35648 | |
| 78.0 | 02080208 | wcho011e3 | PEM | Perm ROW, Temp ROW | 34 | 0.13 | 0.00 | 0.00 | Open Cut | 36.76130 | -76.35568 | |
| 78.0 | 02080208 | wcho011f3 | PFO | Perm ROW, Temp ROW | 602 | 1.11 | 0.42 | 0.00 | Open Cut | 36.76137 | -76.35309 | |
| 78.0 | 02080208 | wcho011f3 | PFO | Surv Corr, Temp ROW | Not Crossed By Centerline | 0.00 | 0.00 | 0.00 | NA | 36.76162 | -76.35515 | |
| 78.2 | 02080208 | wcho011f | PFO | Temp AR, Perm ROW, Temp ROW | 837 | 1.28 | 0.58 | 0.00 | Open Cut | 36.76229 | -76.35102 | |
| 78.3 | .2 02080208 wcho011f PFO Temp AR, Perm ROW, Temp ROW 837 1.28 0.58 0.00 Open Cut 36.76229 -76.35102 .3 02080208 nwi_va_182 PFO Temp AR Not Crossed 0.01 0.00 0.00 NA 36.76355 -76.35122 By Centerline By Centerline -76.35122 -76.35122 -76.35122 -76.35122 | | | | | | | | | | | |

| | | | | APPE | NDIX 5 (cont'd) | | | | | | | | | |
|--------------|---|-------------------------|--------------------------------|-----------------------------|---|--|--|--|------------------------|----------|-----------|--|--|--|
| | Atlantic Coast Pipeline Project - Commonwealth of Virginia Wetland Crossed and Crossing Methods for the Atlantic Coast Pipeline Coastal Zone | | | | | | | | | | | | | |
| | Wetland Crossing Methods for the Atlantic Coast Pipeline Coastal Zone Temporary Hydrologic Approximate Construction Operation Permanent Unit Code Cowardin Crossing Impacts Impacts Construction | | | | | | | | | | | | | |
| Mile Post | Hydrologic Unit Code (HUC8) | Feature ID ^a | Cowardin Class ^b | Facilities Crossed | Approximate Crossing Length (feet) ^{c,d} | Temporary Construction Impacts (acres) ^e | Operation Impacts (acres) ^f | Permanent Impacts (acres) ^g | Construction Method | Latitude | Longitude | | | |
| 78.3 | 02080208 | nwi_va_183 | PEM | Temp AR | Not Crossed | 0.00 | 0.00 | 0.00 | NA | 36.76354 | -76.35126 | | | |
| 78.3 | 02080208 | nwi_va_182 | PFO | Temp AR | By Centerline Not Crossed By Centerline | 0.01 | 0.00 | 0.00 | NA | 36.76371 | -76.35016 | | | |
| 78.3 | 02080208 | wcho011f | PFO | Temp AR | Not Crossed By Centerline | 0.00 | 0.00 | 0.00 | NA | 36.76373 | -76.35001 | | | |
| 78.5 | 02080208 | wcho011f | PFO | Temp AR | Not Crossed By Centerline | 0.24 | 0.00 | 0.00 | NA | 36.76419 | -76.34718 | | | |
| 78.5 | 02080208 | wcho011e | PEM | Temp AR, Perm ROW, Temp ROW | 394 | 2.46 | 0.00 | 0.00 | Open Cut | 36.76357 | -76.34646 | | | |
| 78.6 | 02080208 | wcho011e | PEM | Temp AR | Not Crossed By Centerline | 0.01 | 0.00 | 0.00 | NA | 36.76434 | -76.34590 | | | |
| 79.1 | 0.1 02080208 wcho008e PEM Perm ROW 5 0.00 0.00 HDD 36.76525 -76.33662 0.5 02080208 wcho005a PEM Perm ROW Not Crossed 0.11 0.00 No. 36.76525 -76.33662 | | | | | | | | | | | | | |
| 79.5 | 02080208 | wcho005e | PEM | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.11 | 0.00 | 0.00 | NA | 36.76639 | -76.32987 | | | |
| 79.9 | 02080208 | wcho009e h | PEM | Perm ROW | 72 | 0.08 | 0.00 | 0.00 | Open Cut | 36.76436 | -76.32344 | | | |
| 79.9 | 02080208 | wcho009f ^h | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.06 | 0.00 | 0.00 | NA | 36.76475 | -76.32318 | | | |
| 80.4 | 02080208 | wcho010e | PEM | Perm ROW, Temp ROW | 1594 | 1.67 | 0.00 | 0.00 | Open Cut | 36.76489 | -76.31424 | | | |
| 80.4 | 02080208 | wcho010f | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.06 | 0.02 | 0.00 | Open Cut | 36.76508 | -76.31528 | | | |
| 80.4 | 02080208 | wchro001e ^h | PEM | Perm ROW | Not Crossed By Centerline | 0.01 | 0.00 | 0.00 | Open Cut | 36.76473 | -76.31477 | | | |
| 80.7 | 02080208 | wcho010f | PFO | Perm ROW, Temp ROW | 443 | 1.91 | 0.36 | 0.00 | Open Cut | 36.76564 | -76.31186 | | | |
| 80.8 | 02080208 | wchro002e h | PEM | Perm ROW, Temp ROW | 487 | 1.02 | 0.00 | 0.00 | Open Cut | 36.76761 | -76.30817 | | | |
| 80.8 | 02080208 | wchro002e | PEM | Temp ROW | Not Crossed By Centerline | 0.00 | 0.00 | 0.00 | NA | 36.76683 | -76.30861 | | | |
| 80.8 | 02080208 | wchro002e | PEM | Temp ROW | Not Crossed By Centerline | 0.00 | 0.00 | 0.00 | NA | 36.76684 | -76.30860 | | | |
| 80.8 | 02080208 | wchro002e | PEM | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.06 | 0.00 | 0.00 | Open Cut | 36.76669 | -76.30826 | | | |
| 80.9 | 02080208 | wchro002f h | PFO | Perm ROW, Temp ROW | 305 | 0.39 | 0.14 | 0.00 | Open Cut | 36.76840 | -76.30787 | | | |
| 80.9 | 02080208 | wchro002f | PFO | Perm ROW, Temp ROW | 351 | 0.46 | 0.20 | 0.00 | Open Cut | 36.76926 | -76.30777 | | | |
| 80.9 | 02080208 | wchro002f | PFO | Perm ROW | Not Crossed By Centerline | 0.00 | 0.00 | 0.00 | Open Cut | 36.76883 | -76.30808 | | | |
| 81.0 | 02080208 | wchro002f | PFO | Perm ROW | 8 | 0.00 | 0.00 | 0.00 | Open Cut | 36.76888 | -76.30806 | | | |

| | APPENDIX 5 (cont'd) | | | | | | | | | | | | | |
|--------------|-----------------------------------|---|--------------------------------|--|---|--|--|--|------------------------|----------|-----------|--|--|--|
| | | | | Atlantic Coast Pipeline Wetland Crossed and Crossing Me | e Project - Commonw thods for the Atlantic | ealth of Virgini Coast Pipeline | a Coastal Zone | 2 | | | | | | |
| Mile Post | Hydrologic Unit Code (HUC8) | Feature ID ^a | Cowardin Class ^b | Facilities Crossed | Approximate Crossing Length (feet) ^{c,d} | Temporary Construction Impacts (acres) ^e | Operation Impacts (acres) ^f | Permanent Impacts (acres) ^g | Construction Method | Latitude | Longitude | | | |
| 81.0 | 02080208 | wchro002e | PEM | Perm ROW | Not Crossed By Centerline | 0.12 | 0.00 | 0.00 | Open Cut | 36.76923 | -76.30822 | | | |
| 81.0 | 02080208 | 30208 wcho012e PEM Perm ROW, Temp ROW 6 0.01 0.00 Open Cut 36.77001 -76.30808 | | | | | | | | | | | | |
| 81.4 | 02080208 | wcho014f | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 1.36 | 0.01 | 0.00 | Open Cut | 36.77341 | -76.30324 | | | |
| 81.7 | 02080208 | wcho016f | PFO | Perm ROW, Temp ROW | Not Crossed By Centerline | 0.17 | 0.00 | 0.00 | Open Cut | 36.77420 | -76.29827 | | | |
| 81.7 | 02080208 | wcho017e | PEM | Surv Corr, Temp ROW | Not Crossed By Centerline | 0.05 | 0.00 | 0.00 | NA | 36.77380 | -76.29797 | | | |
| 81.8 | 02080208 | wcho016e h | PEM | Perm ROW, Temp ROW | 319 | 0.00 | 0.00 | 0.00 | HDD | 36.77418 | -76.29725 | | | |
| 82.4 | 02080208 | nwi_va_i_009 | PFO | Perm ROW, Temp ROW | 452 | 0.39 | 0.23 | 0.00 | Open Cut | 36.77509 | -76.28486 | | | |
| 82.5 | 02080208 | nwi_va_n_007 | PFO | Perm ROW | 63 | 0.05 | 0.04 | 0.00 | Open Cut | 36.77508 | -76.28431 | | | |
| 82.7 | 02080208 | wcha001f | PFO | Perm MLR | Not Crossed By Centerline | 0.00 | 0.00 | 0.14 | NA | 36.77343 | -76.28128 | | | |
| Total | otal 82,981 140.77 40.55 1.22 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

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Feature ID starting with NWI represent wetlands that are based on desktop data from the National Wetlands Inventory. There are no field data sheets for these features included in Appendix 6. Wetland types according to Cowardin et al. (1979):

PFO = palustrine forested

PSS = palustrine scrub-shrub

PEM = palustrine emergent

PUB = palustrine unconsolidated bottom

E = estuarine (E2E, E2EM, E2F, and E2U)

Approximate Crossing Length represents linear feet of route centerline crossing.

Not Crossed By Centerline = wetland occurs within workspace but is not crossed by the centerline, trenching thru the wetland is not expected.

Temporary impacts include construction impacts due to clearing and trenching activates during construction, as well as temporary access road impacts that will be restored to preconstruction contours and revegetated after construction.

Operational impacts are associated with wetland type conversion impacts as a result of operational requirements that allow a 10-foot-wide corridor centered over the pipeline to be maintained in an herbaceous state, and for the removal of trees within 15 feet on either side of the pipeline. To determine conversion impacts on scrub-shrub wetlands, a 10-foot-wide corridor centered over the pipeline was assessed. A 30-foot-wide corridor centered over the pipeline was assessed for forested wetlands.

g Permanent impacts will occur for above ground facility and permanent access road construction, and will result in loss of wetlands. h

Tidal wetland verified with VMRC.

Note: The totals shown in this table may not equal the sum of addends due to rounding.

ATLANTIC COAST PIPELINE, LLC ATLANTIC COAST PIPELINE

VCP Consistency Certification

APPENDIX 6 Waterbody and Wetland Datasheets and Photos

| Survey Description | | | | | | | | | |
|--|-----------------------|----------------------|-----------------------------|----------------------------|------------------------------|------------------------|-------------|-----------|----------------------|
| Project Name: | | Waterbody Nar | ne: | | v | /aterbody ID: | | | Date: |
| Atlantic Coast Pipelir | ne | Blackwater F | River | | S | soa010 | | | 12/6/2014 |
| State: 0 | County: | | Company: | | Crew I | Member Initials | 5: | Photos: | |
| Virginia | Southampton | | NRG | | GB, F | RL | | 3 phot | os |
| Tract Number(s): | | | Nearest Mile | epost: | | Associated W | etland | ID(s): | |
| 25-107; 26-001, cour | nty line South | ampton, | 37.0 –VNC | G Lateral | | wsoa024; delineated | lown l | ine wet | land yet to be |
| (check one) | ⊠Centerline | □Re-F | Route | □ Access Road | | □Other: | | | |
| Physical Attributes | | | | | | | | | |
| Stream Classification: (check one) | □ Ephemera | I □Inter | mittent | ⊠Perennial | | | | | |
| Waterbody Type: | F | | | | | | | | |
| (check one) | River 🗆 Stro | eam 🗆 Dito | h 🗆 Ca | anal 🗌 Other: | : | | | | |
| ОНѠМ | OHWM Indicat | or: | | | | | | | |
| Width: <u>185.0</u> ft. | (check all that apply | 9 | ⊠ Clear lir on bank | ne 🗆 Shelving | g | □Wrested vegetation | |]Scouring | g ⊠Water staining |
| Height: | □Bent, n | natted, or missin | g | ne 🛛 Litter ar | nd | □Abrupt plan | nt | □Soil cl | haracteristic change |
| <u> </u> | vegetatio | n | | debris | | community ch | nange | | |
| Width of Waterbody - To | p of Width o | of Waterbody - | Toe of Slope | Width of Waterbo | ody - W | ater Edge to | Depth | of Water | r: |
| Bank to Top of Bank: | to loe | of Slope: | | water Edge: | | | (Approx.) |) | |
| <u>195.0_</u> ft. | _ | <u>145.0</u> ft. | | | <u>80.0</u> f | t. | N/A□ | | <u>8.0</u> ft. |
| Sinuosity: | Water | /elocity: | | Bank height | | | Banks | slope | |
| (check one) | (Approx.) | | | Right: | | | | Right | : |
| | | <u>0.33</u> fp: | S | Left: | <u>4.0</u> ft. | | | l off | <u>65</u> degrees |
| Meandering | J N/A□ | | | - | <u>3.0</u> ft. | | | Len | |
| Qualitative Attribute | es | | | | | | | | |
| Water Appearance: (check one) | lo water □C | Clear □Turb | id □Sh on | neen ⊡Sur i surface scu | rface um | □Algal mats | ⊠Othe | r: organ | ics, black water |
| Substrate: | Bedrock 🗆 Bo | ulder 🗆 Cobb | le 🗆 Grave | el 🖂 Sand 🛛 | ⊠ Silt/ o | clav 🛛 Organio | : □(| Other: | |
| (check all that apply) | 0/ | 0/ | 0/ | | 00.0/ | с 0/ | | 0/ | |
| // OF OUDSTRACE. | 70 | % | _70 | % <u>15</u> % _ | 00_% | <u> </u> | | 70 | |
| Width of Riparian Zone: | Vegetative | Layers: | Traca | . 5 | Z Conli | ago/Chruba | N | 7 Horbo | |
| <u>2000.0 ft</u> - | Avg. DBH | of Dominants: | ⊠ Trees _ <u>13.0_</u> i | : ⊵ n | ⊴ Sapili _ <u>1.0_</u> in | ngs/Shrubs: | Ľ | Herbs | |
| N/A⊔ Dominant Bank Vegetati | on (list): | | | | | | | | |
| Baldcypress, water tu | upelo, laurel o | ak, swamp c | hestnut oal | k, river birch, g | reen a | ash, red map | le, gre | enbrie | r, crossvine, grape, |
| Aquatic Habitats (ex: sub | merged or emerged | l aquatic vegetation | n, overhanging | banks/roots, leaf pac | ks, large | submerged wood | l, riffles, | deep pool | s): |
| Coarse woody debris | s, roots and cy | press knees/ | along ban | ks | | | | | |
| Aquatic Organisms Obs | erved (list): | | | | | | | | |
| Fish, beaver lodge | | | | | | | | | |
| T&E Species Observed (| (list): | | | | | | | | |
| none | | | | | | | | | |
| Disturbances (ex: livestoc | k access, manure i | n waterbody, waste | e discharge pipe | es): | | | | | |
| Refuse brought in wi | th flow | | | | | | | | |
| Tributary is: (check one) | ⊠ Natural | hA 🗆 | ificial, man-m | ade 🗆 Manipu | ulated | | | | |
| Stream Quality ^a : (check one) | □ High | ⊠ Mo | oderate | □ Low | | | | | |

ssoa010

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Blackwater River, continues out of corridor in both directions. Large wetlands on both sides in floodplain abutting natural levees, semi-permanently flooded with bald cypress and water tupelo as dominants.

Waterbody Sketch (Include north arrow, centerline distance from centerline, data point location, survey boundary, and IDs of associated features)





Waterbody SSOA010 facing southeast downstream



Waterbody SSOA010 facing northeast upstream



Waterbody SSOA010 facing east across

Linear Waterbody Data Sheet Survey Description Project Name: Waterbody N

| Survey Description | n | | | | | | | |
|--|---|-------------------------------|------------------------|---------------------------------|-----------------|------------------------------|----------------------|---------------------------|
| Project Name: | | Waterbody Na | me: | | w | aterbody ID: | | Date: |
| Atlantic Coast Pipel | ine | UNT to Blac | kwater Rive | er | SS | sua004 | | 12/8/2014 |
| State: | County: | | Company: | | Crew N | Member Initials | : Phote | DS: |
| Virginia | Suffolk | | NRG | | GB, F | RL | 3 pł | notos |
| Tract Number(s): | 1 | | Nearest Mile | epost: | | Associated W | etland ID(s) | |
| 26-003; 26-002; acc | cess road 71b |) | 37.75 | | | wsua008 | | |
| Survey Type: (check one) | ⊠Centerlir | ne □Re-F | Route | ⊠Access Road | | □Other: | | |
| Physical Attributes | S | | | | | | | |
| Stream Classification: (check one) | Epheme | eral 🗌 Inter | mittent | ⊠Perennial | | | | |
| Waterbody Type: | | | | | | | | |
| (check one) | River 🛛 S | tream 🗆 Dite | ch 🗆 Ca | anal 🗌 Other: | | | | |
| OHWM Width: _ <u>4.0_</u> ft. | OHWM Indic (check all that ap | ator: ply) | ⊠ Clear lir on bank | ne 🗆 Shelving | J | □Wrested vegetation | ⊠Scou | uring ⊡Water staining |
| Height: <u>1.5_</u> ft. N/A□ | □Bent, vegetat | matted, or missin | ig ⊠Wrack li | ne □Litter an debris | d | □Abrupt plan community ch | t ⊡So ange | oil characteristic change |
| Width of Waterbody - T Bank to Top of Bank: | op of Width to To | of Waterbody - e of Slope: | Toe of Slope | Width of Waterbo Water Edge: | ody - W | ater Edge to | Depth of Wa | ater: |
| <u>7.0</u> ft. | | <u>3.0</u> ft. | | <u>_</u> 3 | .25_ft. | | N/A□ | <u>0.75</u> ft. |
| Sinuosity: | Wate | r velocity: | | Bank height | | | Bank slope | |
| (check one) | (Approx | к.) | | Right: | | | Ri | ght: |
| | | <u> 0.75 </u> fp | S | Left: | <u>3.0</u> ft. | | | <u>60</u> degrees |
| Meanderin | ng N/A⊡ |] | | | <u>3.0_</u> ft. | | | 80 degrees |
| Qualitative Attribu | tes | | | | | | | |
| (check one) | No water | Clear DTurk | oid ⊡Sh on | leen ⊡Sur surface scu | face m | □Algal [mats | □Other: | |
| Substrate: | Bedrock 🗆 E | Boulder 🗆 Cobb | ole 🗆 Grave | el 🛛 Sand 🛛 | ∃ Silt/ c | lay 🛛 Organic | Other: | |
| (check all that apply) % of Substrate: | % | % | _% | % <u>70 </u> % | <u>25_</u> % | <u> 5 </u> % | | % |
| Width of Riparian Zone | : Vegetati | ve Layers: | | | | | | |
| <u>_100.0_ft</u> - | (check all th Avg. DB | at apply) H of Dominants: | ⊠ Trees _8.0_in | | Saplir | ngs/Shrubs: | ⊠ Herl | os |
| N/A Dominant Bank Vegeta | (approx.) | | | | | | | |
| Sweetgum svcamo | | olar loblolly ni | | ak black willow | v Am | erican holly | eweethav | lananese |
| honevsuckle. cross | vine, yenow por vine, cane, w ibmerged or emerg | voodland sedae | e, willow c | banks/roots, leaf pack | s, large | submerged wood | , riffles, deep | |
| Pools, coarse wood | ly debris, wra | ck piles, leaf p | acks | <i>,</i> , | , 0 | 0 | , , , , , , , | , |
| Aquatic Organisms Ob | served (list): | | | | | | | |
| Minnows, frog | | | | | | | | |
| T&E Species Observed | (list): | | | | | | | |
| none | | | | | | | | |
| Disturbances (ex: livesto | ock access, manure | e in waterbody, waste | e discharge pipe | es): | | | | |
| Run-off and sedime | ent load from a | agricultural fiel | ds, culvert | crossing for dir | road | (access roa | d 71b) | |
| Tributary is: (check one) | ⊠ Natural | □ Ar | tificial, man-m | ade 🗆 Manipu | lated | | | |
| Stream Quality ^a : (check one) | □ High | ⊠ Mo | oderate | □ Low | | | | |

ssua004

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Stream continues out of VNG lateral corridor and access road 71b corridors in both directions; flows through PFO wetland wsua008; culvert crossing for existing dirt road.





Waterbody SSUA004 facing north downstream



Waterbody SSUA004 facing south upstream



Waterbody SSUA004 facing west across



Ditch point DSUA001 facing north

| Linear Waterbod | y Data She | et | | | | | | | |
|--|----------------------------------|-------------------------------|------------------------|--------------------------------|-----------------|------------------------------|-------------------------|--------------------------|----|
| Survey Description | n | | | | | | | | |
| Project Name: | | Waterbody N | ame: | | w | aterbody ID: | | Date: | |
| Atlantic Coast Pipel | ine | UNT to Bla | ckwater Rive | er | SS | sua005 | | 12/10/2014 | |
| State: | County: | | Company: | | Crew I | lember Initials | : Phot | tos: | |
| Virginia | Suffolk | | NRG | | GB, F | RL | 3 p | hotos | |
| Tract Number(s): | | | Nearest Mile | epost: | | Associated W | etland ID(s |): | |
| 26-007; 26-009 | | | 38.05 | | | NONE | | | |
| Survey Type: (check one) | ⊠Centerli | ne □Re | -Route | □ Access Road | | □Other: | | | |
| Physical Attributes | S | | | | | | | | |
| Stream Classification: (check one) | Epheme | eral ⊠Int | ermittent | □Perennial | | | | | |
| Waterbody Type: (check one) | River 🛛 S | Stream 🗆 D | itch 🗆 Ca | anal 🗆 Other | : | | | | |
| OHWM Width: <u>3.0</u> ft. | OHWM India (check all that ap | cator: pply) | ⊠ Clear lir on bank | ne 🗆 Shelvin | g | □Wrested vegetation | □Sco | uring ⊟Water staining | |
| Height: ft. | □Bent vegeta | , matted, or miss tion | ing ⊠Wrack li | ne □Litter ar debris | nd | □Abrupt plar community ch | nt ⊡S nange | oil characteristic chan | ge |
| Width of Waterbody - T Bank to Top of Bank: | op of Widtl to To | h of Waterbody e of Slope: | - Toe of Slope | Width of Waterb Water Edge: | ody - W | ater Edge to | Depth of W (Approx.) | /ater: | |
| <u>7.0</u> ft. | | <u>2.0</u> ft. | | | <u>2.5_</u> ft. | | N/A□ | _0.25_ft. | |
| Sinuosity: | Wate | er velocity: | | Bank height | | | Bank slope | 9 | |
| Straight | (Αρριο | 0.00 | | Right: | 30 ff | | R | ight: 60 degrees | |
| □Meanderir | | <u></u> | μs | Left: | 25 ft | | | Left: | |
| | | J | | - | <u></u> n. | | | | |
| Qualitative Attribu | tes | | | | | | | | |
| (check one) | No water | ⊠Clear □Tu | rbid □Sh on | neen ⊡Sui nisurface sci | rface um | □Algal mats | □ Other: | | |
| Substrate: | Bedrock 🗆 🛙 | Boulder 🛛 Col | oble 🛛 Grave | el 🛛 Sand 🛛 | ⊠ Silt/ c | lay 🛛 Organio | c 🗆 Other | | |
| (check all that apply) % of Substrate: | % | % | _% | % <u>35 </u> % | <u>55_</u> % | <u> 10 </u> % | | <u>%</u> | |
| Width of Riparian Zone | : Vegetati (check all th | ive Layers: hat apply) | ⊠ Trees | : | ⊠ Saplir | ngs/Shrubs: | ⊠ Hei | rbs | |
| <u>ft</u> . N/A⊠ | Avg. DB (approx.) | H of Dominants | <u>13.0</u> i | n | <u>1.5</u> in | | | | |
| Dominant Bank Vegeta | tion (list): | | | | | | | | |
| Sweetgum, red map | bie, lobioliy pi | ne, beech, wa | ater oak, swe | eet bay, Japan | ese no | oneysuckie, g | greenbrie | r, cane, panic gra | SS |
| Aquatic Habitats (ex: su | bmerged or emerg | ged aquatic vegetat | ion, overhanging | banks/roots, leaf pac | ks, large | submerged wood | l, riffles, deep | pools): | |
| Leaf packs, small w | rack piles | | | | | | | | |
| Aquatic Organisms Ob | served (list): | | | | | | | | |
| none | | | | | | | | | |
| T&E Species Observed | (list): | | | | | | | | |
| none | | | | | | | | | |
| Disturbances (ex: livesto | ock access, manur | e in waterbody, was | ste discharge pipe | es): | | | | | |
| Agricultural run-off, | clear cut ups | stream | | | | | | | |
| Tributary is: (check one) | ⊠ Natural | | artificial, man-m | ade 🗌 Manip | ulated | | | | |
| Stream Quality ^a : (check one) | 🗆 High | | Noderate | □ Low | | | | | |

ssua005

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Continues out of corridor in both directions. Parallels agricultural field in a strip of mixed hardwoods and pines.





Waterbody SSUA005 facing north downstream



Waterbody SSUA005 facing south upstream



Waterbody SSUA005 facing west across

| Survey Descripti | on | | | | | | | | | | |
|---|--------------------------------|------------------------|---------------------|------------------------|----------------------|----------------------|-----------------------------|------------------------------|-------------|-------------|----------------------|
| Project Name: Wa | | | Vaterbody Name: | | | | | aterbody ID: | | | Date: |
| Atlantic Coast Pipeline UNT to | | | to Blackwater River | | | | S | ssua007 | | | 12/10/2014 |
| State: | County: | | | Company: C | | | Crew I | ew Member Initials: | | | |
| Virginia | inia Suffolk | | | NRG G | | | GB, F | B, RL | | 3 phote | os |
| Tract Number(s): | | | 1 | Nearest Mile | epost: | | | Associated Wetland ID(s): | | | |
| 26-012 | | | ÷ | 38.5 | | | | wsua010 | | | |
| Survey Type: (check one) | ⊠Center | ine | □Re-Ro | oute | | ccess Road | | □Other: | | | |
| Physical Attribut | es | | | | | | | | | | |
| Stream Classification (check one) | n: □Ephem | eral | lntern | nittent | ⊠Pe | erennial | | | | | |
| Waterbody Type: (check one) | □River ⊠ | Stream | Ditch | n 🗆 Ca | anal | □ Other | : | | | | |
| OHWM Width: _ <u>5.0_ft.</u> | OHWM Indi (check all that a | cator: pply) | | ⊠ Clear lir on bank | ne | □Shelvin | g | □Wrested vegetation | | Scouring | g ⊟Water staining |
| Height: ft. N/A□ | □Ben vegeta | t, matted, or ition | missing | ⊠Wrack li | ne | ⊠Litter aı debris | nd | □Abrupt plar community ch | nt nange | □Soil cl | haracteristic change |
| Width of Waterbody - | Top of Widt | h of Waterb | ody - T | oe of Slope | Width | of Waterb | ody - W | ater Edge to | Depth | of Water | : |
| <u></u> | to I | <u>4.0</u> ft. | : | | water | Edge: | <u>4.5_</u> ft. | | (Approx.) | - | <u>0.75</u> ft. |
| Sinuosity: | Wate | er velocity: | | | Bank | height | | | Bank s | slope | |
| (check one) | (Appr | ох.) | | | | Right: | 00 6 | | | Right | : |
| _ | | 0. | <u>.33_</u> fps | | | Left: | <u>2.0</u> π. | | | Left | <u>90</u> degrees |
| ⊠ Meande | ring N/A | | | | | - | <u>2.0</u> ft. | | | | 70 degrees |
| Qualitative Attrib | utes | | | | | | | | | | |
| Water Appearance: (check one) | \Box No water | ⊠Clear | □Turbio | d ⊡Sh on | ieen i surfac | ⊡Su e sci | rface um | □Algal mats | □Othe | r: | |
| Substrate: (check all that apply) % of Substrate: | □ Bedrock □ _% | Boulder | | e 🗆 Grave | el ⊠ % <u>.</u> € | Sand 55_% | ⊠ Silt/ c _ <u>40_</u> % | clay ⊠ Organio | ; □(| Other: % | |
| Width of Riparian Zon | ne: Vegetat (check all | ive Layers: | | ⊠ Trees | : | ٥ | ⊠ Saplir | ngs/Shrubs: | Þ | I Herbs | |
| <u>90.0 ft</u> - N/A□ | Avg. DE (approx.) | 3H of Domir | nants: | <u> 15.0 </u> ii | n. | - | <u>1.5</u> in | l. | | | |
| Dominant Bank Vege | tation (list): | | | | | | | | | | |
| Black gum, yellow | poplar, lobloll | y pine, sw | /eetgur | m, sweet k | bay, A | merican | holly, | cane, netted | chair | n fern | |
| Aquatic Habitats (ex: | submerged or emer | ged aquatic ve | egetation, | , overhanging | banks/ro | oots, leaf pac | ks, large | submerged wood | l, riffles, | deep pool | s): |
| Pools, leaf packs, | wrack piles | | | | | | | | | | |
| Aquatic Organisms C | Observed (list): | | | | | | | | | | |
| minnows, crayfish | | | | | | | | | | | |
| T&E Species Observe | ed (list): | | | | | | | | | | |
| none | | | | | | | | | | | |
| Disturbances (ex: live | stock access, manu | re in waterbod | ly, waste | discharge pipe | es): | | | | | | |
| None apparent | | | | | | | | | | | |
| Tributary is: (check one) | ⊠ Natura | I | □ Artif | ficial, man-m | ade | Manip | ulated | | | | |
| Stream Quality ^a : (check one) | □ High | | ⊠ Moo | lerate | | □ Low | | | | | |

ssua007

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Continues out of corridor in both directions, flows into ssua008 north of corridor, flows through PFO wetland wsua010.

Waterbody Sketch (Include north arrow, centerine, distance from centerline, data point location, survey boundary, and Ds of associated features)





Waterbody SSUA007 facing north downstream



Waterbody SSUA007 facing south upstream



Waterbody SSUA007 facing west across

| Survey Description | on | | | | | | | | |
|--|---|------------------------------|------------------------------|----------------------------|------------------------------|------------------------------|-------------|-----------|----------------------|
| Project Name: Waterbo | | | me: | v | Vaterbody ID: | | | Date: | |
| Atlantic Coast Pipe | line | UNT to Blac | ackwater River | | | ssua008 | | | 12/10/2014 |
| State: | County: | | Company: C | | | ew Member Initials: | | | |
| Virginia Suffolk | | | NRG | | | 3, RL 3 p | | | os |
| Tract Number(s): | | | Nearest Milepost: | | | Associated Wetland ID(s): | | | |
| 26-012 | | | 38.55 | | | wsua010 | | | |
| Survey Type: (check one) | ⊠Centerlin | e □Re- | Route | □Access Road | | □Other: | | | |
| Physical Attribute | es | | | | | | | | |
| Stream Classification: (check one) | Epheme | ral □Inte | rmittent | ⊠Perennial | | | | | |
| Waterbody Type: (check one) | □River ⊠ St | ream 🗆 Dit | ch 🗆 Ca | anal 🗌 Other | : | | | | |
| OHWM Width: | OHWM Indic (check all that app | ator: | Clear lin | ne 🗆 Shelvin | g | □Wrested | | Scouring | g ⊡Water |
| <u>6.0</u> ft. | | | on bank | | | vegetation | | | staining |
| Height: <u>1.5</u> ft. | □Bent, vegetati | matted, or missir on | ng ⊠Wrack li | ne ⊠Litter ar debris | nd | □Abrupt plan community ch | it nange | □Soil cl | naracteristic change |
| N/AL | Top of Width | of Waterbody - | Toe of Slone | Width of Waterb | odv - W | ater Edge to | Denth | of Water | • |
| Bank to Top of Bank: | to Toe | of Slope: | | Water Edge: | cuj i | alo. Lugo lo | (Approx.) | er mater | • |
| <u>_7.0</u> ft. | | _4.5_ft. | | | <u>5.5</u> ft. | | N/A 🗆 | | <u>1.0</u> ft. |
| Sinuosity: | Water | velocity: | | Bank height | | | Bank s | lope | |
| (check one) | (Approx | .) | | Right: | | | | Right | : |
| | | <u>0.25</u> fp |)S | L oft | <u>2.0</u> ft | | | ام ا | 60 degrees |
| ⊠Meander | ing N/A□ | | | - | <u>2.0</u> ft | | | Lon | degrees |
| Qualitative Attribu | utes | | | | | | | | |
| Water Appearance: (check one) | □No water ⊠ | Clear | bid ⊡Sh on | leen ⊡Sul i surface sci | rface um | □Algal mats | □Othe | r: | |
| Substrate: | Bedrock B | oulder 🗆 Cobl | ble 🗆 Grave | el 🛛 Sand 🛛 | ⊠ Silt/ o | clay 🛛 Organic | : □ (| Other: | |
| (check all that apply) % of Substrate: | % | % | _% | % <u>40</u> % | <u>50 </u> % | <u> 10 </u> % | | % | |
| Width of Riparian Zon | e: Vegetativ | ve Layers: | | | | | | | |
| <u>120.0 ft</u> . | (check all the Avg. DBH | at apply) I of Dominants: | ⊠ Trees _ <u>15.0_</u> ii | : D | ⊠ Sapliı _ <u>1.5_</u> in | ngs/Shrubs: 1. | \boxtimes | Herbs | |
| N/AL | ation (list): | | | | | | | | |
| Black gum, yellow | poplar, lobiolly | pine, sweetg | um, sweetb | ay, American h | nolly, c | cane, netted | chain | fern, gi | eenbrier |
| Aquatic Habitats (ex: s | submerged or emerge | ed aquatic vegetation | on, overhanging | banks/roots, leaf pac | ks, large | e submerged wood | , riffles, | deep pool | s): |
| Pools, leaf packs, v | wrack piles, co | arse woody d | ebris acros | s channel | | | | | |
| Aquatic Organisms O | bserved (list): | | | | | | | | |
| minnows | | | | | | | | | |
| T&E Species Observe | d (list): | | | | | | | | |
| none | | | | | | | | | |
| Disturbances (ex: lives | tock access, manure | in waterbody, wast | e discharge pipe | es): | | | | | |
| None apparent | | | | | | | | | |
| Tributary is: (check one) | ⊠ Natural | 🗆 Ar | tificial, man-m | ade 🗌 🗆 Manipi | ulated | | | | |
| Stream Quality ^a : (check one) | Stream Quality ^a : check one) | | ⊠ Moderate □ Low | | | | | | |

ssua008

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Continues out of corridor in both directions, ssua007 is a tributary north of corridor, flows through PFO wetland wsua010.

Waterbody Sketch (Include north arrow, centerine, distance from centerline, data point location, survey boundary, and Ds of associated features)





Waterbody SSUA008 facing northwest downstream



Waterbody SSUA008 facing southeast upstream



Waterbody SSUA008 facing northeast across



Ditch data point DSUC053 facing southeast

| Survey Description | | | | | | | |
|---|--------------------------------|---|-----------------------------------|--|--|--|--|
| Project Name: Water | body Name: | Waterbody ID: | Date: | | | | |
| HCP UN | Tto Blackwater | River SSUOII | 3/24/16 | | | | |
| State: County/Parish: | Company: | Crew Member Initials | : Photos: Facing | | | | |
| VH Suffalk | ESI | LK, SB | E, W, N | | | | |
| Tract Number(s): | Nearest Milepost: | Associated W | etland ID(s): | | | | |
| 26-013-A002, 26-013-AU | 03 41.5 | WSUD | 051 | | | | |
| Survey Type: (check one) | kar Route □ Ac | ccess Road | | | | | |
| Physical Attributes | | | | | | | |
| Stream Classification: | | ranaial | | | | | |
| | | a canadi | | | | | |
| (check one) | 🗆 Ditch 🛛 Canal | Other: | | | | | |
| OHWM OHWM Indicator: Width:ft. | Clear line on bank | Shelving Wrested vegetation | □Scouring □Water staining | | | | |
| Height:ft. Vegetation | or missing DWrack line | Litter and Abrupt plan debris community ch | t Soil characteristic change ange | | | | |
| Width of Waterbody - Top of Width of Wat | erbody - Toe of Slope Width | of Waterbody - Water Edge to | Depth of Water: | | | | |
| S . To loe of slo | pe: water | Z . | 1.5 # | | | | |
| ft | _ft. N/A□ | ft. | N/AD | | | | |
| Sinuosity: Water velocit | y: Bank | height | Bank slope , | | | | |
| Straight (Approx.) | 4 | Right: 3 ft | Right: 96 degrees | | | | |
| X Meandering | ips | Left: 3 | Left: 7D degrees | | | | |
| | • | n. | degrees | | | | |
| Qualitative Attributes | | | | | | | |
| (check one) No water Clear DTurbid DSheen DSurface Algal DOther: on surface scum mats | | | | | | | |
| Substrate: Bedrock Boulder | Cobble Gravel | I Sand 🕅 Silt/ clay 🗆 Organi | c 🗆 Other: | | | | |
| (check all that apply) % of Substrate: % % % % 100 % % % | | | | | | | |
| Width of Rinarian Zone: Venetative Lavers: | | | | | | | |
| HD (check all that apply) | Trees: | A Saplings/Shrubs: | Herbs | | | | |
| N/AD Avg. DBH of Dor (approx.) | minants:in. | in. | <u>NH</u> in. | | | | |
| Dominant Bank Vegetation (list): | | | | | | | |
| Ilex opaca, Carpinus caroliniana | | | | | | | |
| Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): | | | | | | | |
| deep pools, rittles, submerged roots/wood | | | | | | | |
| Aquatic Organisms Observed (list): | | | | | | | |
| none observed | | | | | | | |
| T&E Species Observed (list): | | | | | | | |
| none observed | | | | | | | |
| Disturbances (ex: livestock access, manure in wate | rbody, waste discharge pipes): | | | | | | |
| none | | | | | | | |
| Check one) | 🗆 Artificial, man-made | Manipulated | | | | | |
| Stream Quality *: | | | | | | | |

Waterbody ID: 554011 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots, water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no . disturbance by liveslock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) N 1 1 90 20 5 00 SSUDII Form Rev. 05/16/2014

Environmental Field Surveys Waterbody Photo Page



Waterbody data point ssuo111 facing east upstream.



Waterbody data point ssuo111 facing west downstream.


| Drainet Name | n | | | | | | | | | |
|---|---|---|---|---|---|---|--|-------------------|---|--|
| Project Name: | 11 | Wate | rbody Nan | ne: | | W | aterbody ID: | | Dat | e: |
| Atlantic Coast Pipel | ine | UNT | to Black | water Rive | er | ss | sua071 | | 9/1 | 6/2015 |
| State: | County: | I | | Company: | | Crew N | lember Initials | 5: | Photos: | |
| Virginia | Suffolk | | 1 | NRG | | GB, S | A | | 3 photos | |
| Tract Number(s): | | | | Nearest Mile | post: | | Associated W | etland | ID(s): | |
| 26-013-A003 | | | | 41.6 | | | none | | | |
| Survey Type: (check one) | ⊠Ce | nterline | ⊠Re-R | Route | □Access Road | b | Other: | | | |
| Physical Attribute: Stream Classification: | s | | | | | | | | | |
| (check one) | ⊠Epl | hemeral | | mittent | Perennial | | | | | |
| Waterbody Type: (check one) |]River | ⊠ Stream | | h □ Ca | anal 🗆 Other | r: | | | | |
| OHWM Width: <u>3.0</u> ft. | OHWM (check all | Indicator: that apply) | | ⊠ Clear lin on bank | e □Shelvir | ng | □Wrested vegetation | Þ | Scouring | □Water staining |
| Height: <u>1.0_</u> ft. N/A□ | □ ve | Bent, matted, getation | or missing | g | ne ⊡Litter a debris | ind | □Abrupt plar community cł | nt nange | □Soil chara | acteristic chang |
| Width of Waterbody - T Bank to Top of Bank: | op of | Nidth of Wat | erbody - T pe: | Toe of Slope | Width of Waterb Water Edge: | ody - W | ater Edge to | Depth (Approx. | of Water: | |
| <u>4.0</u> ft. | | <u>2.5</u> f | t. | | N/A 🕅 | ft | | N/A⊠ | | ft. |
| Sinuosity: (check one) ⊠Straight □Meanderin | ng | Water velocit (Approx.) – N/A⊠ | . y: fp | os | Bank height Right: Left: | <u>5.0</u> ft. <u>5.0</u> ft. | | Bank | slope Right: Left: | <u>90 </u> degrees 9 <u>0 </u> degrees |
| Qualitative Attribu | tes | | | | | | | l. | | |
| Water Appearance: (check one) | []] No water | □Clear | □Turbi | id ⊡Sh on | een ⊡Su surface sc | urface cum | □Algal mats | □Othe | r: | |
| | Bedrock | Boulder | | le 🛛 Grave | el 🛛 Sand | Silt/ cl | ay 🛛 Organio | | Other: | |
| Substrate: | | | | | | | | | | |
| Substrate: (check all that apply) % of Substrate: | % | % | | % | % <u>75</u> % | <u>10</u> % | <u> 15 </u> % | | % | |
| Substrate: (check all that apply) % of Substrate: Width of Riparian Zone ft. N/A⊠ | | jetative Layer k all that apply) I. DBH of Dor rox.) | rs: ninants: | %° ⊠ Trees: _ <u>10.0_</u> ir | % <u>75</u> % | <u>10</u> % ⊠ Saplin <u>1.0</u> in. | <u>15</u> % gs/Shrubs: | > | % ⊴ Herbs | |
| Substrate: [(check all that apply) % of Substrate: Width of Riparian Zone ft N/A⊠ Dominant Bank Vegeta Black walnut, sycan goldenrod, poison in Aguatic Habitats (exr si | | % jetative Layer <i>k</i> all that apply) j. DBH of Don rox.) elder, spic <u>weed. raow</u> emerged aguati | rs: minants: ebush, a c vegetation | % ⊠ Trees: _10.0_ir asian dayflo oanese hor oanese hor | % <u>75</u> % | % ⊠ Saplin in. se stiltg | <u>15</u> % gs/Shrubs: rass, pokew | veed, o | % ☑ Herbs dog-fenne deep pools): | l, soybean, |
| Substrate: (check all that apply) % of Substrate: Width of Riparian Zone ft. N/A⊠ Dominant Bank Vegeta Black walnut, sycan poldenrod, poison in Aquatic Habitats (ex: su none | | % getative Layer <i>x</i> all that apply) DBH of Don rox.) elder, spic weed. raow emerged aquati | rs: minants: ebush, a /eed. Jat c vegetation | % ⊠ Trees: _10.0_ir asian dayflo oanese hor n, overhanging | % <u>75</u> % n. Dwer, Japanes Devsuckle banks/roots, leaf pao | <u>10</u> % ⊠ Saplin <u>1.0_</u> in. se stiltg | <u>15</u> % gs/Shrubs: rass, pokew | veed, o | % ☑ Herbs dog-fenne deep pools): | l, soybean, |
| Substrate: [check all that apply] % of Substrate: | % :: Veg (chec (app) (app) ition (list): nore, box (V. horse) ibmerged or of served (list) | % jetative Layei sk all that apply) j. DBH of Don "ox.) elder, spic weed. raow emerged aquati :): | rs: minants: :ebush, a <u>/eed. Jar</u> c vegetation | % ⊠ Trees: 10.0_ir asian dayflo panese hor n, overhanging b | % <u>75</u> % n. Dwer, Japanes <u>nevsuckle</u> banks/roots, leaf pac | <u>10</u> % ⊠ Saplin <u>1.0</u> _in. se stiltg | <u>15</u> % gs/Shrubs: rass, pokew | veed, o | % I Herbs dog-fenne deep pools): | l, soybean, |
| Substrate: [check all that apply] % of Substrate: | | % getative Layen ck all that apply) DBH of Don rox.) elder, spic weed. raow emerged aquati t): | rs: minants: :ebush, a / <u>eed. Jar</u> c vegetation | % ⊠ Trees: _ <u>10.0_</u> ir asian dayfle <u>banese hor</u> n, overhanging | % <u>75</u> % | <u>10</u> % ⊠ Saplin <u>1.0</u> in. se stiltg cks, large | <u>15</u> % gs/Shrubs: rass, pokew submerged wood | /eed, (| % I Herbs dog-fenne deep pools): | l, soybean, |
| Substrate: [check all that apply] % of Substrate: | % :: Veg (checking) ition (list): nore, box /V. horsey ubmerged or of served (list): | % jetative Layei ck all that apply) j. DBH of Don "ox.) elder, spic weed. raqw emerged aquati t): | rs: minants: :ebush, a /eed. Jar c vegetation | % ⊠ Trees: 10.0_ir asian dayfle oanese hor n, overhanging b | % <u>75</u> % | <u>10</u> % ⊠ Saplin <u>1.0</u> _in. se stiltg cks, large | <u>15</u> % gs/Shrubs: rass, pokew submerged wood | veed, o | % I Herbs dog-fenne deep pools): | l, soybean, |

Excessive run off from agricultural field has caused severe down cutting

| Tributary is: (check one) | ⊠ Natural | □ Artificial, man-made | Manipulated |
|--|-----------|------------------------|-------------|
| Stream Quality ^a : (check one) | □ High | □ Moderate | ⊠ Low |

Waterbody ID:

ssua071

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Begins near edge of agricultural field at head cut where several erosional gullies in a small stand of pines come together, downstream continues out of corridor. Channel is actively down cutting and has exposed many roots.

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)





Waterbody SSUA071 facing southeast upstream



Waterbody SSUA071 facing northwest downstream



Waterbody SSUA071 facing southwest across

Linear Waterbody Data Sheet

| Survey Description | | an Sherina | | Sales and | | | |
|--|--------------------------------------|--|-----------------------------|----------------------------------|-----------------------------------|----------------------------|--|
| Project Name: | | Waterbody Nam | le: | | Waterbody ID: | | Date: |
| Acp | | VT to B | lackwate | F RIVER | 554000- | 7 | 10/7/15 |
| State: C | ounty/Parish: | 0 | Company: | | Crew Member Initials | : Photos: | 1 . 1 |
| VA | Suffolk | | ESI | | JBenton | EI | W, N |
| Tract Number(s): | | 1 | Vearest Milepo | ost: | Associated W | /etland ID(s): | |
| 26-013- A | 006,26- | 013-A005 | 42 | | WSUD | 013 | |
| Survey Type: (check one) | Centerline | Re-Re | oute | □Access Road | Other: | | |
| Physical Attributes Stream Classification: | | | | | | | |
| (check one) | Ephemera | al ⊡Intern | nittent | Perennial | | | |
| Waterbody Type: (check one) | iver 🕅 Str | eam 🗆 Ditch | n 🗆 Cana | al 🗆 Other | : | | |
| OHWM Width: 7_ft. | OHWM Indica (check all that apply | tor: | Clear line on bank | Shelvin | g DWrested vegetation | Scourin | g ⊟Water staining |
| Height: 0, 7 ft. | Bent, r vegetatio | natted, or missing n | Wrack line | □Litter an debris | nd | nt j⊠Soil o nange | haracteristic change |
| Width of Waterbody - To Bank to Top of Bank: ft. | p of Width to Toe | of Waterbody - To of Slope: 2,5ft. | oe of Slope W W N | ater Edge: /ater Edge: /A□ | ody - Water Edge to | Depth of Wate (Approx.) | r: 0.5_ _{ft.} |
| Sinuosity: (check one) □Straight | Water (Approx.) | velocity: | B | ank height Right: Left: | ft. ft. | Bank slope Righ Lei | t: <u>70</u> degrees t: <u>70</u> degrees |
| Qualitative Attribute | es | | Ser Provide | | | | Recting and |
| Water Appearance: | | | | | | | |
| (check one) | lo water 🖾 | Clear 🗆 Turbio | d DShee on su | n ⊡Su Irface sci | rface □Algal um mats | □Other: | |
| Substrate: (check all that apply) % of Substrate: | Bedrock □ Bo | ulder 🗆 Cobble | e 🗆 Gravel %% | Sand 60 % | ⊠Silt/clay ⊠ Organic 30_% _/♡% | c □ Other: %% | |
| Width of Riparian Zone: | Vegetative | E Layers: | / | | | | |
| 500 ft. | (check all that Avg. DBH | apply) of Dominants: | [⊠] Trees: i0in | | Saplings/Shrubs: | A Herbs | 1. |
| Dominant Bank Vegetati | on (list): | | | | | | |
| Acer rubrum. Ca | rethus carol | Mana, Iler | apara Lia | votrom sihe | nee, Microsteniu | n inter | n |
| Aquatic Habitats (ex: subr | nerged or emerge | aquatic vegetation, | overhanging ba | nks/roots, leaf pac | cks, large submerged wood | t, riffles, deep poo | ls): |
| overhanging ban | KS, leaf | pucks, subn | nerged we | nod t oth | er debris. | | |
| Aquatic Organisms Obse aquatic worms, | no Ep | T observe | 1 | | | | |
| T&E Species Observed (| list): | | | | | | |
| Disturbances (ex: livestoch | k access, manure i | n waterbody, waste | discharge pipes) | : | | | 12 |
| Tributary is: (check one) | Natural | Artif | ficial, man-mad | e 🗆 Manip | ulated | | |
| Stream Quality * : (check one) | □ High | S Moo | lerate | Low | | | |

Form Rev. 05/16/2014

Waterbody ID: SSU0 007 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) W500013 5500006 vpland inclusion data poi SSUD DU WSU0013

Form Rev. 05/16/2014

27.1 - - 道道道



Waterbody ssuo007 facing east upstream.



Waterbody ssuo007 facing west downstream.

Photo Sheet 1 of 2



Waterbody ssuo007 facing north across bank.

Linear Waterbody Data Sheet

(

| Survey Description | | | | | a series and and | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | A Star Plan |
|--|--|--------------------------------------|-------------------------------|---------------------------------|-------------------------------------|--|--------------------|
| Project Name: | | Waterbody Na | me: | | Waterbody ID: | Dat | te: |
| ACP | | VT to | Black water | RIVEF | 5540006 | 1 | 0/7/15 |
| State: | County/Parish: | | Company: | | Crew Member Initials | : Photos: | |
| VA | SUFFOLK | | EST | | JBenton | NE, S | W, NW |
| Tract Number(s): | | | Nearest Milepos | t: | Associated W | etland ID(s): | |
| 26-013-A | 1006,21 | 6-013-A007 | 42 | | WSVO | 013 | |
| Survey Type: (check one) | Centerline | B DRe-F | Route | Access Road | Other: | 9 | |
| Physical Attributes | | | | | | | 18 - 18 M |
| (check one) | Ephemera | al 🗆 Inter | mittent 🛛 🖄 | Perennial | | | |
| Waterbody Type: (check one) | River 🕅 Str | eam 🗆 Dito | h 🗆 Canal | Other | : | | |
| онwм Width: <u>5</u> ft. | OHWM Indica (check all that apply | tor: /) | Clear line on bank | □Shelvin | g | □Scouring | □Water staining |
| Height: <u>0,5</u> ft. N/A□ | Vegetatio | natted, or missin n | g 🗆 Wrack line | □Litter ar debris | nd | t ØSoil chara ange | acteristic change |
| Width of Waterbody - To Bank to Top of Bank: ft. | pof Widtho to Toe – | of Waterbody - of Slope: ft. | Toe of Siope Wid Wa N/A | ith of Waterb ter Edge: □ | ody - Water Edge to | Depth of Water: (Approx.) N/A□ | <u> }_ft.</u> |
| Sinuosity: (check one) □Straight Meandering | Water (Approx.) N/A□ | velocity: | Bar | nk height Right: Left: | ft. ft. | Bank slope Right: Left: | degrees |
| Qualitative Attribute | es | | | | | | di y |
| Water Appearance: (check one) | lo water | Clear 🗆 Turb | id DSheen on surf | ⊡Sui ace sci | rface ⊡Algal [um mats | □Other: | |
| Substrate: (check all that apply) % of Substrate: | Bedrock 🗆 Bo | ulder 🗆 Cobb | le 🗆 Gravel %% | ⊠ Sand <u>10 %</u> | X Silt/ clay ⊠ Organic 60_%_30_% | □ Other: | |
| Width of Riparian Zone: <u>ろのの ft</u> . N/Aロ | Vegetative (check all that Avg. DBH (approx.) | e Layers: apply) of Dominants: | ⊠ Trees: 6_in. | ¢ - | Saplings/Shrubs: | ⊠ Herbs _ <i>N[A</i> _in. | |
| Acer rubrum, | on (list): Salix Nigra | Microste | gimvinihe | un Imp | ations capensis | s, Arundinana | gigantea |
| Aquatic Habitats (ex: sub Submoged Ve | petation, | aquatic vegetation | n, overhanging bank | s/roots, leaf pac S | ks, large submerged wood | , riffles, deep pools): | |
| Aquatic Organisms Obs NO EPT 0 | bserved | | | | | | |
| T&E Species Observed (| list): | | | | | | |
| Disturbances (ex: livestoc | k access, manure i | n waterbody, waste | e discharge pipes): | | | | |
| Tributary is: | | ~! | | | | | |
| (check one) | 🖄 Natural | 🗆 Art | ificial, man-made | 🗆 Manip | ulated | | |
| Stream Quality * : (check one) | 🗆 High | 反 Ma | oderate | Low | | | |

Form Rev. 05/16/2014

Waterbody ID: 5540 00F High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) WSVOD13 SSU0006data point W5V0013 vpland inclusion 5500007 W500013

Form Rev. 05/16/2014



Waterbody ssuo006 facing northeast upstream.



Waterbody ssuo006 facing southwest downstream.

Photo Sheet 1 of 2 6-33



Waterbody ssuo006 facing northwest across bank.

| near Waterbody Data She | et | | | |
|--|---|-------------------------------|--|----------------------------------|
| urvey Description | | | Materbody ID: | Date: |
| oject Name: | waterbody Name: | | esun All | 2) Sept 2015 |
| CP | UNITO Block | later River | Sacore | |
| te: County/Parish | 2 mpton ESI | Cre | WMember Initials: KR, CSM | $S_1 N, W$ |
| ct Number(s): | Nearest Mile | post: | Associated Wetlan | d ID(s): |
| 6-013-12009,26-01 | 3-4000 | NA | WSDDJ | 5Ø3 |
| ck one) | rline 🛛 Re-Route | □Access Rozd | □Other: | |
| eam Classification: | | | | |
| ck one) Epher | meral AIntermittent | | | |
| aterbody Type: eck one) | Stream | anal 🗆 Other. | | |
| WM Width: <u>5</u> ft. | dicator: tapply) | ne 🗆 Shelving | □Wrested vegetation | □Scouring □Water staining |
| Height:ft. | ent, matted, or missing □Wrack station | line □Litter and debris | □Abrupt plant community chang | □Soil characteristic change e |
| idth of Waterbody - Top of Wi | idth of Waterbody - Toe of Slop | Width of Waterbod | y - Water Edge to Dep | oth of Water: |
| | a a | | e de la companya de la compa | ft. |
| t. | π. | N/AX | N/# | |
| nuosity: W | ater velocity: | Bank height | Ba | nk slope |
| DStraight | pprox) | Right: | 4 t. | Right: 90 degrees |
| | rps | Left: | 4 | Left: 90 degrace |
| Meandering | IAR | | t. | <u>_7 O</u> deglees |
| Qualitative Attributes | | | | |
| Nater Appearance: | 🗆 Clear 🗆 Turbid 🗆 | Sheen Surf on surface scur | ace 🗆 Algal 🕞 m mats | Other: |
| Substrate: Dedrock (check all that apply) % of Substrate:% | Boulder Cobble Gr % % | 20% | Silt/ clay □ Organic | □ Other: % |
| Width of Riparian Zone: Veg | ck all that apply) g. DEH of Dominants: | rees: | (Saplings/Shrubs: | Herps MAin. |
| Dominant Bank Vegetation (list): | Ten TIPX OPAC | a Ligustron | m, Athyr | ium |
| LITIOUCIDICIT TUMP | full j fler ele |) Usinen | Se | asplenioides |
| Aquatic Habitats ier: submerged or Woody debris | emerged aquatic vegetation overhan | ing banks/roots lear pac | kS large submerged wood | Times deer poors). |
| Aquatic Organisms Observed (li | st): | | | |
| None observe | ed | | | |
| T&E Species Observed (list): NONC Obse | erved | | | |
| Disturbances (ex thestock access None observ | i manute in waterbody waste discharg VCJ | ĉe pipes): | | |
| Tributary is: (check one) | Natural 🖂 Artificial, r | nan-made XMar | sipulated | |
| Stream Quality : | High X Moderate | | | |
| (cneck one) | | 35 | | |

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Waterbody ID: SUDD16

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor, minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:





Waterbody ssuo016 facing south upstream.



Waterbody ssuo016 facing north downstream.

Photo Sheet 1 of 2 6-37



Waterbody ssuo016 facing west across bank.

| inear Waterbody Data Shee | et | | | |
|--|--|--------------------------------|-----------------------------------|------------------------------|
| urvey Description | Malada ale ale Manage | | Waterbody ID: | Date: |
| oject Name: | Waterbody Name: | | ssuo017 | 22 Sept 2015 |
| T4 | UNITO Blacken | INTER KINER | Member Initials: | Photos: |
| VA Sasuff | orkton ESI | L | KR, CSM | EWS |
| ect Number(s): | Nearest Miler | oost: | Associated Wetland | d ID(s): |
| 26-013-A009 | | NA | 11800 DR | 0.5 |
| rvey Type: ack one) | ne 🛛 Re-Route | □Access Rozd | □Other: | |
| nysical Attributes | | | | |
| eck one) Epheme | eral AIntermittent | | | |
| aterbody Type: eck one) | Stream | nal 🗌 Other: | | |
| WM Width:ft. OHWM India | cator: pply) | e DShelving | □Wrested vegetation | □Scouring □Water staining |
| Height: 0,5 ft. Vegeta | t, matted, or missing □Wrack lii ation | ne □Litter and debris | □Abrupt plant community change | Soil characteristic change |
| idth of Waterbody - Top of Widt | th of Waterbody - Toe of Slope | Width of Waterbody | - Water Edge to Dep | th of Water: |
| ank to Top of Bank: to To | oe of Slope: | Vvaler Edge. / | | D.1 + |
| ft. | ft. | N/AD | πN/Α | |
| nuosity: Wat | ter velocity: | Bank height | Bar | nk slope |
| heck one) | | Right: L | f f | Right: 96 degrees |
| | tps | Left: L | <u> </u> | Left: 9D degrees |
| □Meandering N/A | | | | <u> </u> |
| Qualitative Attributes | | | | ALCANTER AND AND AND |
| Vater Appearance: check one) No water | | heen 🗆 Surfa n surface scum | ce 🗆 Algal 🖾 C n mats | Other: |
| Substrate: Bedrock C (check all that apply) % of Substrate:% | Boulder Cobble Gra | vel pisand A | Silt∕ clay □ Organic | □ Other: % |
| Width of Riparian Zone: Veget <i>HO</i> ft. Avg | tative Layers: all that apply) DBH of Dominants: | es: | Saplings/Shrubs: | X Herbs |
| | x) | | | m |
| Dominant Bank Vegetation (list): Lirio dendron tuli | Afera, Ligustro | m sinense | | |
| Aquatic Habitats (ey: submerged or en | merged aquatic vegetation overhang | ng banks/roots leaf pack | is Targe submerged wood it | nifies deep pools): |
| Aquatic Organisms Observed (list) | : | | | |
| None obse | rved | | | |
| None Observed (list): | erved | | | |
| Disturbances ext thestock access the None obse | nanure in waterbody waste discharge KVCJ | prpes): | | |
| Tributary is: (check one) | Natural 🖸 Artificial, m | an-made Manij | pulated | |
| Stream Quality *: | Kundania | | | |
| (check one) | High X Moderate | | | |

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Waterbody ID: SSUD内1コ

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:







Waterbody ssuo017 facing east upstream.



Waterbody ssuo017facing west downstream.

Photo Sheet 1 of 2 6-41



Waterbody ssuo017 facing north across bank.

| Survey Description | 1 | | | | A State State | | 10-4-1 |
|---|--|---------------------------------------|-------------------------|---|--|----------------------------------|--|
| Project Name: | | Waterbody Nan | 10: | With the second | Waterbody ID: | 2 21 - | Date: |
| ACP | | UNTT | O Kings | sole, Supmo | SSUF | Ø15 | 10/1/1 |
| State: | County/Parish: | | Company: | ic ic | Crew Member Initia | ls: Photos | : sacing |
| VA | SUFFC | >11< | EST- | 1 | MKSIKSM | NE | , SW, SE |
| Tract Number(s): | 100 | 6 | Nearest Mile | post: | Associated | wetland ID(s): | - |
| 76-013 | -HUd | 2 | | 44.5 | NS | 40965 | |
| Survey Type: (check one) | Centerline | DRe-R | oute | □Access Road | □Other: | | |
| Physical Attributes | 1 | | | | P. D. S. | | |
| (check one) | Ephemera | I ⊡Interr | nittent | | | | |
| Waterbody Type: (check one) | River 🖻 Stre | eam 🗆 Ditcl | n 🗆 Ca | anal 🗆 Other: | | _ | |
| OHWM Width: <u> </u> | OHWM Indicat (check all that apply) | or:) | Clear lin on bank | e DShelving | 也Wrested vegetation | Scouri | ng twwater staining |
| Height:ft. | □Bent, π vegetation | natted, or missing n | I □Wrack lin | ne DLitter and debris | d DAbrupt pla community | ant ⊡Soil change | characteristic chang |
| Width of Waterbody - T Bank to Top of Bank: ft. | op of Width o to Toe – | of Waterbody - T of Slope: 5ft. | oe of Slope | Width of Waterbo Water Edge: N/A⊡ | dy - Water Edge to <u>+</u> ft. | Depth of Wat (Approx.) N/A | er: <u>0. 5_</u> ft. |
| Sinuosity: (check one) Straight | Water v (Approx.) | velocity: <u>0.5</u> fp | s | Bank height Right: Left: |)ft. 4ft. | Bank slope Rigi Le | nt: <u>20</u> degree ft: <u>60</u> degree |
| Qualitative Attribu Water Appearance: | tes | | d | oon DSurf | | | |
| | No water LC | lear Li l'urbi | | surface scur | m mats | | |
| Substrate: (check all that apply) % of Substrate: | I Bedrock 	□ Bo | ulder 🗆 Cobbl | e 🗆 Grave | el \square Sand \square $_{\%} = 50 \% = 50$ | Silt/ clay □ Orgar | nic □ Other: _%% | |
| Width of Riparian Zone <u>50 ft</u> . N/A□ | : Vegetative (check all that Avg. DBH (approx.) | e Layers: apply) of Dominants: | □ Trees | :. 🗹 _in | Saplings/Shrubs: | NA NA | 'n. |
| Dominant Bank Vegeta | tion (list): | | | | 17 | | |
| POlystichum Aquatic Habitats (ex: su | DCDSHIC | hoide S | igu St , overhanging | banks/roots, leaf pack | s, large submerged wo | cera se od, riffles, deep po | ols): |
| 1 Paf Porcis | S, riffi | e/ 1001 | 5,500 | n ban-erged | woody d | elovis | |
| Aquatic Organisms Ob | served (list): | | 25 | | | | |
| T&E Species Observed | l (list): | 12. T | ing the star | | | | |
| Disturbances (ex: livest | ock access, manure i | n waterbody, waste | discharge pipe | 25): | | | |
| Tributary is: (check one) | 1 Natural | □ Art | ificial, man-m | ade 🗆 Manipu | lated | | |
| Stream Quality *: | | | damta | | | | |

SSUP 015 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) Classed Rd SSypoll 5842015 HPORS 5540010

Form Rev. 05/16/2014

Waterbody ID:



Waterbody data point ssup015 facing northeast upsteam.



Waterbody data point ssup015 facing southwest downstream.

Photo Sheet 1 of 2 6-45



Waterbody data point ssup015 facing southeast across bank.

| Lineal Waterbo | - | | And a star Party of | | | 100 million and | | |
|--|---|---|--|--|---|---|---|--|
| Survey Description | on | | | | hairtan | odu ID: | ID.a | ta |
| roject Name: | 1 | Waterbody Nam | | 1.1.1.1 | watert | | J | 1/02/16 |
| AUF | | | to Kingpol | e Swam | 0 5. | MONIO | | 10010 |
| itate: | County/Parish: | K | Company: | | Crew Memb | er Initials: | Photos: | E |
| MA | SULLOI | | EST | | L.N., | S. L. | A M | E |
| ract Number(s): | | | Nearest Milepost | | Ass | ciated Wetlar | nd ID(s): | |
| 26-013- | A030 | | | 7,5 | 111 | 201001 | 1 | 12410.008 |
| iurvey Type: theck one) | | ARe-R | oute 🛛 | Access Road | 00 | ther; | | |
| hysical Attribute | es | | grandia (1994) | | | | 1-1-1- | |
| heck one) | | i 🗆 Intern | nittent 27 | erennial | | | | |
| Vaterbody Type: heck one) | | eam 🗆 Ditch | n 🗇 Canal | Other: | | | - 10 - 47. | , |
| HWM Width:ft. | OHWM Indicat (check all that apply | or:) | Clear line | | g 🗆 V veg | Vrested etation | Scouring | Water staining |
| Height: 2_ft. | Bent, n vegetatio | natted, or missing n | J □Wrack line | debris | ad ⊡A con | brupt plant nmunity change | □ Soil char e | acteristic change |
| Vidth of Waterbody - | Top of Width | of Waterbody - T | oe of Slope Wid | th of Waterbo | ody - Water | Edge to Dept | th of Water: | |
| lank to Top of Bank: | to Toe | of Slope: | Wat | er Edge: | 6 | (Appri | 2 | - |
| <u></u> ft. | - 1 | <u>ft</u> . | NUA | | ft. | N/A[| | n. |
| inuosity: | Water | velocity: | Ban | k height | 1000 | Ban | k slope | |
| in a start | (Annun) | | | Right: | | 5 | Right: | 211) |
| neck one) | (Approx.) | 1 | | | 2 | | _ | |
| Straight | יאטיקקאן | fp: | s | Left | <u>2_ft</u> . | | Left: | degrees |
| Check one) | ring N/A | fp: | S | Left: | <u>2</u> ft. <u>2</u> ft. | | Left: | 90 degrees |
| Check one) Straight Meander Dualitative Attrib | ring N/A | fp: | s | Left: | <u>2</u> n. <u>2</u> n. | | Left: | 90 degrees |
| Check one) | ring N/A utes | fp: Xearturbi | s d □Sheen on sufi | Left: | 2_ft. <u>2_</u> ft. face □4 | Algal 🗆 Otl | Left: | 90 degrees 90 degrees |
| Straight Meander Qualitative Attrib Vater Appearance: theck one) | ring N/A utes No water 0 | fp: | s d OSheen on surfa | Left: | 2_ft. 2_ft. face □/ /m Silt/ clay | Algal Oti mats | Left: | 90 degrees |
| Straight Straight Meander Qualitative Attrib Vater Appearance: sheck one) Ubstrate: sheck all that apply) (of Straight | ring N/A utes No water C Bedrock Bo | Clear Turbi | s d Sheen on surfa e C Gravel | Left: ace Sur Sand Sand S | 2_ft. 2_ft. frace □/ /m SiW/clay | Algal Oti mats | Left: her: Other: | 90 degrees degrees |
| Straight Straight Meander Qualitative Attrib Vater Appearance: check one) Straight Meander Meander Straight Meander Straight Meander Straight Meander Straight Meander Straight Meander Straight Meander Straight Meander Straight Meander Straight Meander Straight Straight Meander Straight Straight Straight Meander Straight | ring N/A utes No water C Bedrock Bo | fp: Clearfurbi ulder Cobbi _% | s d OSheen on surfa e OGravel | Left: ace Sur Sand S | 2_ft. 2_ft. face □, m Sitt/ clay 10_% | Algal Otl mats Organic C | Left: | 90 degrees |
| Ualitative Attrib Vater Appearance: theck one) Ubstrate: theck all that apply) of Substrate: Vidth of Riparian Zor | ring N/A utes No water C Bedrock Bo % he: Vegetative (check all that Avg. DBH | fp: Clearfurbin ulder Cobbin % Layers: apply) of Dominants: | s d Sheen on surfa e Gravel %% Trees: | Left: ace Sur Sand M 90 % | 2_ft. 2_ft. fface □/ /m Silt/ clay 10_% Saplings/S 2_in. | Algal Oth mats Organic C % hrubs: > | Left: her: Other: % Herps in. | 90 degrees |
| UStraight Ustraight | ring N/A utes No water C Bedrock Bo Bedrock Bo Check all that Avg. DBH (approx.) tation (list): | fp: Clearturbi ulderCobbl %? Layers: apply) of Dominants: | s d Sheen on surfa e Gravel % % % Trees: in. | Left: | 2 ft. 2 ft. 10 10 % Saplings/S 2 | Algal Ott mats Organic C % hrubs:) | Left: her: Other: % | 90 degrees |
| Ustrate: heck one) Ustrate: heck one) Ubstrate: heck all that apply) of Substrate: Ndth of Riparian Zor ACOV Y UbYUM | ring N/A utes No water C Bedrock Bo Bedrock Bo we check all that Avg. DBH (approx.) tation (list): A C C | fp: ClearfurbinulderCobbin Layers: appy) of Dominants: ATLOX FD | s d Sheen on surfa e Gravel %% %% Trees: in. | Left: ace Sur Sand S <u>90%</u> | 2 ft. 1 1 1 1 1 1 % Saplings/S 2 In. | Algal Ott mats Organic C % hrubs: > | Left: | 90 degrees 90 degrees |
| Straight Straight Meander Qualitative Attrib Vater Appearance: theck one) ubstrate: theck all that apply) of Substrate: Vidth of Riparian Zor <u>LOO ft</u> . VAC NACEY Y UBY UM Quatic Habitats (exc | ring N/A utes No water C Bedrock Bo % be: Vegetative (check all that Avg. DBH (approx.) tation (list): utes | tear Turbinulder Cobbing Cobbi | s d Gravel a d Gravel b Crees: in. coverhanging banks | Left: ace Sur Sand Sand Marce Sur Sur Sur Sur Sur Sur Sur Sur | 2 ft. 2 ft. fface 0 J Sill/ clay 10 % Saplings/S 2 2 in. | Algal Othmats | Left: her: Other: | 90 degrees degrees |
| IStraight IStraight Meander | ring N/A utes No water C Bedrock Bo % he: Vegetative (check all that Avg. DBH (approx.) tation (list): M | fp: Clearfurbin ulder □ Cobbin _%? A Layers: apply) of Dominants: MIAX FU A quatic vegetation Characterized and a second A second and a second A second a second and a second A second a second a second a second A second a second a second a second a second A second a | s d Sheen on surfa e Gravel %% %% Trees: in. tundif overhanging banks | Left: ace Scu Sand Sand Market Surface Sur | 2 ft. 2 ft. fface fface Stitt/ clay Stitt/ clay Saplings/S in. ks, large subr | Algal Oth mats Organic C % hrubs: serged wood, riffe | Left: | <u>90</u> degrees |
| Index one) Straight Meander | ring N/A utes No water C Bedrock Bo Bedrock Bo re: Vegetative (check all that Avg. DBH (approx.) tation (list): submerged or emerger WOOdy C | tear xturbi ulder □ Cobbi _% Layers: apply) of Dominants: MICLX FU d aquatic vegetation ebm S | s d Sheen on surfa e Gravel % % % % % % % % % % % % % % % % % % % | Left: Left: ace Sur Sand 90% | 2 ft. 2 ft. 10 % Silk/ clay 10 % Saplings/S 2 in. | Algal Oth mats Organic C % hrubs: > | Left: her: Other: % Herps Main. | <u>90</u> degrees |
| IStraight Istraight Index and Index and | ring N/A utes No water C Bedrock Bo Bedrock Bo Me: Vegetative (check all that Avg. DBH (aprox.) tation (list): Aug. Check WOOdy C bserved (list): | tear turbinulder Cobbi 9% Cobbi 1 aquatic vegetation 9% Cobbi 1 aquatic vegetation 9% Cobbi 1 aquatic vegetation | s d | Left: ace Scu Sand 90% | 2 ft. 2 ft. fface Jm Silt/ clay 10 % Saplings/S & Saplings/S ks, large subm | Algal Oth mats Organic C % hrubs: > | Left: | <u>90</u> degrees <u>90</u> degrees |
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| Straight Straight Meander Qualitative Attrib Vater Appearance: theck one) Ubstrate: theck all that apply) 6 of Substrate: Vidth of Riparian Zor <u>IOO</u> ft. VAC Nominant Bank Vege ACOLY UbYUM Quatic Habitats (ex: Deep YOU) S Iquatic Organisms C NDME Secies Observed NDME Obse | ring N/A utes UNO water C Bedrock Bo Bedrock Bo Mo water C Bedrock Bo Mo Wegetative (check all that Avg. DBH (approx.) tation (list): A A C S Bo Beserved (list): C C C S C | tp: Clear Turbin ulder Cobbin _% Clear Cobbin _% Clear Cobbin _% Clear Cobbin _% Cobbin Cobbin _% Cobbin _% Cobbin Cobbin _% Cobbin Cobbin Cobbin Cobbin | s d Sheen on surfa e Gravel %% | Left: | 2 ft. 2 ft. 10 % Saplings/S | Algal Othmats | Left: her: Other: % % | <u>90</u> degrees degrees |
| Straight Straight Qualitative Attrib Vater Appearance: theck one) Ubstrate: theck one) Ubstrate: theck all that apply) 6 of Substrate: Vidth of Riparian Zor <u>100</u> ft. VA□ Nominant Bank Vege ACOF Y UbY UM Quatic Habitats (ex: Deep YOU S Quatic Organisms C NOME See Species Observer Nome observer Nome observer Sturbances (ex: liver (UVO) A Tibutary Is: theck one) | ring N/A utes No water C Bedrock Bo Bedrock Bo Bedrock Bo Check all that Avg. DBH (approx.) tation (list): UCD C Submerged or emerged WOOD C UDD C Submerged or emerged WOOD C Submerged or emerged WOOD C Submerged or emerged Submerged or emerged | Itear Turbin ulder Cobbin -% Co | s d Gravel a d Gravel b a d Gravel b a d Gravel b a d frees: free | Left: ace Sur Sand 90% | 2 ft. 2 ft. 10 % Saplings/S | Algal Othmats | Left: her: Other: % Herbs in. | <u>90</u> degrees degrees |
| Straight Straight Qualitative Attrib Vater Appearance: sheck one) Straight Autor Appearance: Sheck all that apply) 6 of Substrate: Vidth of Riparian Zor <u>100</u> ft. VA□ Nominant Bank Vege Acel Y UbY UM Quatic Habitats (ex: Deep YoUS Quatic Organisms C NOME Sturbances (ex: live: (UVO) Sturbances (ex: live: (UVO) (UVO) Sturbances (ex: live: (UVO) (| ring N/A utes No water C Bedrock Bo Bedrock Bo Check all that Avg. DBH (approx.) tation (list): UCC S Submerged or emerged WOODY C Deserved (list): VCC Stock access, manure I DO(VO) (1) Natural | Itear Turbin Utear Turbin Ulder Cobbin _% Cobbin Cobbin Cobbin C | s d Gravel a d Gravel b a d a d a d a d a d a d a d a d a d a | Left: Left: ace Sur Sand 90 % | 2 ft. 2 ft. fface 1/2 //m % Slitt/ clay 1/2 1/2 % Saplings/S 2 /m % //m % //m | Algal Othmats | Left: her: Other: % Herbs in. | <u>90</u> degrees degrees |

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| | and the second | | Waterbody ID: SSNDOOO |
|---|--|--|--|
| High Quality: Natural chan roots; water color is clear t disturbance by livestock or r | nel, natural vegetation extends at least one or t o tea-colored; no barriers to fish movement; m nan. | wo active channel widths on each s any fish cover types available; dive | ide; banks stable and protected by erse and stable aquatic habitat; no |
| Moderate Quality: Altered o or riparian vegetation only r film; moderate odor; minor b | hannel evidenced by rip-rap; natural vegetation e noderately compromised; banks moderately uns arriers to fish movement; fair aquatic habitat; mir | xtends 1/3-1/2 of the active channel table; water color is cloudy, subme nimum disturbance by livestock or m | width on each side; filtering function rged objects covered with greenish an. |
| Low Quality: Channel is act width on each side; lack of m pollutants (algal mats, surfa from livestock or man. | vely down cutting or widening; rip rap and channe generation; filtering function severely compromi se scum, surface sheen); heavy odor; severe ba | elization excessive; natural vegetatio sed; banks unstable (eroding); water irriers to fish movement; little to no | n less than 1/3 of the active channel r color is muddy and turbid; obvious aquatic habitat; severe disturbance |
| lotes: | | | |
| | | | |
| | 16 . A | | and a second second |
| | | 5 | |
| Vaterbody Sketch (Inclu | de north arrow, centerline, distance from centerl | ine, data point location, survey bound | ary, and IDs of associated features) |
| | BULLY WE DAW | | |
| C | Beaver DAV | \checkmark | |
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| poi | nt / / | | |
| | | | |
| | CUNOR+ 6-48 | | Form Rev. 05/16/2014 |

at eller



Waterbody ssuo010 facing east upstream.



Waterbody ssuo010 facing west downstream.



Waterbody ssuo010 facing south across bank.



Waterbody data point dsup007 facing southeast upstream.



Waterbody data point dsup007 facing northwest downstream.

Photo Sheet 1 of 2 6-51



Waterbody data point dsup007 facing northeast across bank.

Linear Waterbody Data Sheet

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| Project Name: | haveter | hody Name: | | Waterbody ID: | Date: |
|--|---|--|--|--------------------------------------|--|
| | water | IL | | SSUD DO | 10/21/1 |
| ACP | | 4NI to E | incisale womp | 3 3340079 | 10/21/1 |
| State: VA | county/Parish: SUFFOIK | Company: | | -R, S.I | N,S,E |
| Tract Number(s): 2.6- | -013-A031, | Nearest Mi | lepost: | Associated Wetland I | D(s): |
| 26-013-4030 | ,26-013-A02 | -9 | NA | MITONIA | A start and the second |
| Survey Type: (check one) | Centerline | Re-Route | □Access Road | □Other: | |
| Physical Attributes Stream Classification: | | | . / | | |
| (check one) | Ephemeral | Intermittent | Perennial | | |
| Waterbody Type: (check one) | River Stream | | Canal | | |
| OHWM Width: 6 | OHWM Indicator: (check all that apply) | Clear I on bank | ine Shelving | Wrested vegetation | Scouring DWater staining |
| Height: <u>0.6</u> ft. N/A⊡ | Bent, matted, vegetation | or missing □Wrack | line Litter and debris | □ Abrupt plant community change | □Soil characteristic cha |
| Width of Waterbody - To Bank to Top of Bank: ft. | op of Width of Wate to Toe of Slop | rbody - Toe of Slop e: _ft. | e Width of Waterbody Water Edge: | - Water Edge to Depth c (Approx.) | of Water: <u>0.C</u> tt. |
| (check one) | (Approx.) | 0fps | Right: 2 Left: 2 | ft. | $\frac{\text{Right: } 45}{\text{Left: } 45} \text{degr}$ |
| Qualitative Attribut | es | | | | |
| (check one) | No water | □Turbid □S o | heen □Surface | e □Algal □Other: mats | |
| Substrate: | Bedrock Boulder % | Cobble Gram | vel □ Sand ⊅Si _%% 10 | lt/ clay □ Organic □ O | ther: % |
| | | | | | |
| Width of Riparian Zone: | Vegetative Layers (check all that apply) Avg. DBH of Dom (approx.) | s: hinants: | es: □ Sa _in | aplings/Shrubs: | Herbs in. |
| Width of Riparlan Zone: <u> <u> <u> </u> <u> </u></u></u> | Vegetative Layers (check all that apply) Avg. DBH of Dom (approx.) ion (list): | s: hinants: | es: □ Sa in | aplings/Shrubs: 🗆 I in | Herbs in. |
| Width of Riparlan Zone: <u> <u> <u> </u> <u> </u></u></u> | Vegetative Layers (check all that apply) Avg. DBH of Dom (approx.) ion (list): A CM MAMM prefered or emerged aquatic M MAKS/VQ | s: ninants: | es: □ Sa _in g banks/roots, leaf packs, la | aplings/Shrubs: | Herbs in. leep pools): |
| Width of Riparlan Zone: <u> <u> <u> </u> <u> </u></u></u> | Vegetative Layers (check all that apply) Avg. DBH of Dom (approx.) ion (list): A (W MbMM pomerged or emerged aquatic M MKS/ VQ erved (list): | s: ninants: vegetation, overhanging | es: Sa _in. Sa g banks/roots, leaf packs, la | aplings/Shrubs: | Herbs in. leep pools): |
| Width of Riparlan Zone: <u><u><u></u></u><u><u></u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u></u> | Vegetative Layers (check all that apply) Avg. DBH of Dom (approx.) ion (list): A W WWW pomerged or emerged aquatic M M S VQ ierved (list): (list): | s: ninants: vegetation, overhanging | es: Sa _in. Sa g banks/roots, leaf packs, la | aplings/Shrubs: | Herbs in. eep pools): |
| Width of Riparlan Zone: <u> <u> <u> </u> <u> </u></u></u> | Vegetative Layers (check all that apply) Avg. DBH of Dom (approx.) ion (list): A A MAMM pomerged or emerged aquatic MANSI VA Served (list): (list): ck access, manure in waterb | s: inants: vegetation, overhanging ALTANN, V ody, waste discharge pi | es: Sa _in. Sa g banks/roots, leaf packs, la NOUDY (10, bm pes): | aplings/Shrubs: | Herbs in. leep pools): |
| Width of Riparlan Zone: <u> <u> <u> </u> <u> </u></u></u> | Vegetative Layers (check all that apply) Avg. DBH of Dom (approx.) ion (list): A A A A A A A A A A A A A A A A A A A | s: hinants: vegetation, overhanging http://www.ste discharge pi ody, waste discharge pi Artificial, man-r | es: □ Sa in g banks/roots, leaf packs, la NOUDY (JOBN pes): made □ Manipulate | aplings/Shrubs: | Herbs in. leep pools): 1 4 |

disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) Brentwood 5500006 0 nosus 001 1 0 NEWDONG dswo004

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no

Form Rev. 05/16/2014

Waterbody ID:



Waterbody ssuo099 facing north upstream.



Waterbody ssuo099 facing south downstream.

Photo Sheet 1 of 2 6-55



Waterbody ssuo099 facing east across bank.



Waterbody dsuo004 facing east upstream.



Waterbody dsuo004 facing west downstream.

Photo Sheet 1 of 2 6-57


Waterbody dsuo004 facing south across bank.



Waterbody dsuo003 facing west upstream.



Waterbody dsuo003 facing east downstream.



Waterbody dsuo003 facing east across bank.



Ditch data point dsua071 facing east



Ditch data point dsua072 facing south

Linear Waterbody Data Sheet

| Survey Descriptio | n | | | | | | | | |
|---|---------------------------------------|-----------------------|------------------------------|--------------------------|---------------|-------------------------------|-----------------|------------|----------------------|
| Project Name: | | Waterbody Na | ime: | | M | Vaterbody ID: | | D | ate: |
| ACP | | UNT t | o Kingsal | e Swamp | | ssuro | 104 | | 18 Jan 2016 |
| State: | County/Parish: | | Company: | | Crew | Member Initials | : F | hotos: | manted and anticipan |
| VA | Suffol | K | ESI | e starten | CAT | J, CSM | | SW | NE SE |
| Tract Number(s): | 1.10 | | Nearest Mile | epost: | | Associated W | etland I | D(s): | |
| 26-0 | 544.3 | | 46. | | | WSU | ia O | 74 | |
| (check one) | | □Re | Route | □ Access Road | 1 | □Other: | | | |
| Physical Attribute | s | | • | | | | | | |
| Stream Classification: (check one) | □Ephemera | al 🗆 Inte | ermittent | Perennial | | | | | |
| Waterbody Type: (check one) | River 🗆 Str | eam Di | tch 🗆 Ca | anal 🗆 Other | r: | | | | |
| OHWM Width: U ft. | OHWM Indicat (check all that apply | :or: | Clear lir on bank | ne 🗆 Shelvir | ng | □Wrested vegetation | | Scouring | □W ater staining |
| Height: D. 2-ft. | Bent, n vegetatio | natted, or missi n | ng ⊡Wrack li | ne DLitter a debris | ind | □ Abrupt plan community ch | it nange | 🗆 Soil cha | aracteristic change |
| Width of Waterbody - 1 Bank to Top of Bank: | Top of Width o | of Waterbody | Toe of Slope | Width of Waterb | ody - V | Vater Edge to | Depth (Approx.) | of Water: | |
| ft. | - | Lft. | | N/AD | 3 | _ft. | N/A | C | <u>).5</u> ft. |
| Sinuosity: | Water | velocity: | | Bank height | | | Bank s | lope | |
| (check one) | (Approx.) | 0 | | Right: | E | | | Right: | 95 |
| La Straight | | A | fps | 1-6- | 5 | _ft. | | 1 - 44 | degrees |
| □Meanderi | ng N/A | | | Leπ: | 5 | _ft. | | Len: | <u>85</u> degrees |
| Qualitative Attribu | ites | | | | | | | | |
| Water Appearance: (check one) | No water | Clear 🗆 Tu | rbid 🗆 St or | neen DSu nisurface so | urface cum | □Algal mats | □ Other | : | |
| Substrate: [(check all that apply) % of Substrate: | Bedrock 🗆 Bo | oulder 🗆 Col | oble 🗆 Grav | el 🗆 Sand | g sill 30 | clay Organic % 70 g | c ⊡ C | Other: | |
| Width of Riparian Zone | e: Vegetative | e Layers: | | | | lings/Shrubs' | 17 | Herbs | |
| N/A | Avg. DBH (approx.) | of Dominants | : | _in. | | in. | | V/A in. | |
| Dominant Bank Vegeta | ation (list): | gante | a mou | ued her | bs i | and sapl | ings | 5 | |
| Aquatic Habitats (ex: s | ubmerged or emerge | d aquatic vegetal | ion, overhanging | banks/roots, leaf pa | acks, larg | ge submerged woo | d, riffles, | deep pools | ;): |
| None | | | | | | | | | |
| Aquatic Organisms Of | oserved (list): | | | | | | | | |
| T&E Species Observer | d (list): | | | | | | | | |
| None | | | | | | | | | |
| Disturbances (ex: lives MOWCd - | tock access, manure Maint (| in waterbody, wa | ste discharge pip Agri Cu | Hural F | nel | 9 | | | |
| Tributary is: (check one) | Natural | X. | Artificial, man-r | made 🗆 Man | ipulated | 1 | 1 | | |
| Stream Quality * : (check one) | . 🗆 High | Ŕ | Moderate | Low | | | | | |
| | | | | 0-03 | | | | | |

Waterbody ID:

55ur 007

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) Agricultural 55ur 007 Senterline Corridor Corndo WS42074 Agricultural Field 6 - 64



Waterbody ssur007 facing southwest upstream.



Waterbody ssur007 facing northeast downstream.



Waterbody ssur007 facing southeast across bank.



Ditch data point dsua070 facing southwest



Ditch data point DSUC050 facing south-southwest



Ditch data point DSUC051 facing northeast



Ditch data point DSUC052 facing south-southeast



Waterbody dsur007 facing southwest upstream.



Waterbody dsur007 facing northeast downstream.

Photo Sheet 1 of 2 6-71



Waterbody dsur007 facing southeast across bank.

| Linear Waterbody Da | ta Sheet | | | | Contraction of the second state | |
|---|--------------------------------------|------------------------------|---------------------------|---------------------------------|---------------------------------|----------------------|
| Survey Description | | | Section and | hwatasha da IDa | | ate: |
| Project Name: | Wa | aterbody Name: | E. Desilorent als | waterbody ID: | 015 | 0114/10 |
| ACP | L | INT TO QUA | KER Submy |) 3340 | | |
| State: Cour | ity/Parish: SUFFOIR | < Company: ES | È. | L.R, S. | S; Photos; | N,E |
| Tract Number(s): | 12 01-7 | Nearest Mil | epost: G G | Associated | Wetland ID(s): | |
| 26-000- | 1005 | , 9 | | 000 | 000-0 | |
| (check one) | Centerline | Re-Route | □Access Road | Other: | CARA PORT AND A | ST ALTER AND ALTER A |
| Physical Attributes | | 1 States and a | | | | |
| Stream Classification: (check one) | Ephemeral | | Rerennial | | | |
| Waterbody Type: (check one) | Stream | n 🗆 Ditch 🗆 C | anal 👘 🗆 Other | | | |
| OHWM Width: <u>3</u> ft. | WM Indicator: eck all that apply) | O Clear li on bank | ne 🗆 Shelvin | g DWrested vegetation | □Scouring | □Water staining |
| Height: 2_ft. | □Bent, matt vegetation | ed, or missing Wrack | ine □Litter ar debris | nd DAbrupt pla community | ant ⊡Soil ch change | aracteristic change |
| Width of Waterbody - Top of | Width of V | Vaterbody - Toe of Slope | Width of Waterb | ody - Water Edge to | Depth of Water: | |
| Bank to Top of Bank: | to Toe of S | Slope: | Water Edge: | 9 | (Approx.) | 2. |
| <u> </u> | | <u> </u> | N/A□ | ft. | N/A | <u> </u> |
| Sinuosity: | Water velo | ocity: | Bank height | n | Bank slope | 1- |
| (check one) | (Approx.) | 2 100 | Right | L ft. | Right: | 49 degrees |
| Maandering | | | Left: | .5, | Left: | 3 degrees |
| | | | CHARLEN LAT LAND | | Contraction of the second | |
| Qualitative Attributes | | | A CALL AND AND A CALL | | | |
| (check one) | ater delea | ar ⊡Turbid ⊡S o | heen DSu n surface sci | rface ⊡Algal um mats | □Other: | |
| Substrate: Bedr | ock 🗆 Bould | er 🗆 Cobble 🗆 Grav | vel Sand | Silt/ clay D Organ | nic 🗆 Other: | |
| (check all that apply) % of Substrate: | % % | % | % <u>60</u> % | 40 % | %% | |
| | Manatativa I a | | The second | | ~ | |
| width of Riparian Zone: | (check all that app | M ATree | s: [| Saplings/Shrubs: | Herbs | |
| SUATI | Avg. DBH of | Dominants: 7 | _in | <u>2</u> in. | NATin. | |
| Dominant Bank Vegetation (| list): | | et of the | | × | 1 |
| Pinuc taleda. | Liquida | mbar styrac | ifiua, II | ex opaca, | Arundi | hange |
| Aquatic Habitats (ex: submerg | ed or emerged ac | OKS OVer ho | nging bar | iks, large submerged wo NK S | oa, nines, deep pools | »" 5·3· |
| Aquatic Organisms Observe None Upse | rved | , | 1 | 1 mar | | |
| T&E Species Observed (list) | erved | | | | | |
| Disturbances (ex: livestock act | cess, manure in w | aterbody, waste discharge pi | pes): | | | |
| Tributary is: | ¥ | | | ulated | | |
| (check one) | Natural | Artificial, man- | nade 🗆 Manip | uiateu | | |
| (check one) | □ High | Moderate | Low | | - Marine Marine - | |

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55400 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

Waterbody ID:



Waterbody data point ssuo015 facing south upstream.



Waterbody data point ssuo015 facing north downstream.



Waterbody data point ssuo015 facing east across bank.

| Linear Waterbody Da | ta Sheet | | | | 6/15/16/L 24/15 | | enterior arter | |
|---|---|-----------------|---|--|-----------------|-----------------------------|---|--|
| Survey Description | | a de la com | | An Anger | | atasha du ID: | Marsh 1 | Date: |
| Project Name: | Wate | rbody Nar | ne: | | W | ALEPBODY ID: | | 1/13/11- |
| HLP | | UNI | to Qual | LER Swam. | P | 2540017 | | 11-110 |
| State: Coun | ty/Parish: | | Company: | A Start | Crew M | Member Initials: | Photos: | Facing |
| VA SI | Affolk | | ESI | | L | K,SI | N15 | E |
| Tract Number(s): | | | Nearest Milep | ost: | (****** | Associated Wetla | ind ID(s): | |
| 26-060- | A004 | | 51 | 0.5 | | WSUD | 024 | a stranger |
| Survey Type: (check one) | Centerline | DRe-F | Route | □Access Road | | Other: | | ALC: A SUM AND |
| Physical Attributes | | | | | | | | |
| Stream Classification: (check one) | Ephemeral | □Inten | mittent | Perennial | | | | |
| Waterbody Type: (check one) | Stream | Ditc | h 🗆 Car | nal 🗆 Other | | | | |
| OHWM OH Width: <u>2</u> ft. | WM Indicator: ck all that apply) | | Clear line on bank | B □ Shelvin | g | □Wrested vegetation | □Scourin | g ⊟Water staining |
| Height: 0,5 ft. | □Bent, matted, vegetation | or missing | g 🗆 Wrack lin | e □Litter ar debris | nd | Community change | ⊡Soil c je | haracteristic change |
| Width of Waterbody - Top of | Width of Wat | erbody - T | Toe of Slope | Width of Waterb | ody - W | ater Edge to Dep | pth of Wate | r: |
| Bank to Top of Bank: | to Toe of Slo | pe: | | Nater Edge: | | | 11 UA. J | 0.5 . |
| ft. | | ft. | 1 Mills | | f | t. N/A | | <u>rt.</u> |
| Sinuarity | Water velocit | tv: | all sel of | Bank height | | Bai | nk slope | |
| (check one) | (Approx.) | . I | 5 | Right | 1 | | Righ | t en |
| | | < _ fp | DS | 1 | 1_1 | ft. | Lei | t: degrees |
| Meandering | N/A | | | Lent: | 1 1 | ft. | 201 | 80 degrees |
| Our literity Attail at | | 14 C | | | | A Contraction of the second | | AN PERSONNEL |
| Qualitative Attributes | | the contraction | | | | | and Burger, K. Street | |
| (check one) | iter Clear | □Turb | id ⊡She on s | en 🗆 Su surface sci | rface um | □Algal □O mats | ther: | |
| Substrate: Bedra | ock 🗆 Boulder | Cobb | le 🗆 Gravel | Sand I | X Silt/ c | ay 🗆 Organic | Other: | |
| (check all that apply) % of Substrate:% | %% | | % | » <u>30</u> % | 70 | %% | % | |
| Width of Riparian Zone: | Vegetative Lave | rs: | | | | | | |
| 60 ft. | (check all that apply) Avg. DBH of Do | minants: | ATrees: | in | Saplin Z | ngs/Shrubs: _in. | NA in | n. |
| Dominant Bank Vegetation (I | ist): tolipif | era, | Arund | inaria | 9 19 | antea, I | Elex | opaca |
| Aquatic Habitats (ex: submerge | ed or emerged aquat | ic vegetation | n, overhanging b banks | anks/roots, leaf pace | ks, large | e submerged wood, riff | fles, deep poo | s): |
| Aquatic Organisms Observer | d (list): | 0 0 | | | | | | |
| none obser | red | | | | 1 | | | |
| T&E Species Observed (list): | rved | | | 1 | | | | |
| Disturbances /ar livestock acc | ess manure in water | body, waste | e discharge pipe | s): | | | Service States | |
| none obser | -ved | | g= p.p.s. | - | | | | |
| Tributary is: (check one) | 🛒 Natural | □ Ar | tificial, man-ma | ade 🗆 Manip | ulated | | | |
| Stream Quality *: (check one) | 🗆 High | É M | oderate | Low | | | | |
| state where we are shown in the second state of the second state of the second state of the second state of the | Contraction of the Contraction of the second second | | Change and the account of the second second | and the second states in the second states | | | the second se | |

| Waterbody ID: SSVIO 014 |
|---|
| High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. |
| Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. |
| Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. |
| Notes: |
| |
| |
| |
| Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) |
| NJ Mur 1 |
| tothe land |
| 1540024 |
| |
| |
| |
| 1 1 22 |
| 25 Bdata point 5540014 |
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| For the for |
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| |



Waterbody data point ssuo014 facing north upstream.



Waterbody data point ssuo014 facing south downstream.



Waterbody data point ssuo014 facing east across bank.



Waterbody dsuo010 facing south upstream.



Waterbody dsuo010 facing north downstream.



Waterbody dsuo010 facing east across bank.

Linear Waterbody Data Sheet

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| Survey Description | | Waterbody Name: | | Waterbody ID: | Date: |
|---|---------------------------------------|--|---|--|------------------------------------|
| ACP | | 11. t-L | 2 | Sauch | 31- 118/16 |
| 11-1 | 1. (D. 1.1.) | UNI TO | QUAKER JWAN | no SSUPC | Photos: |
| State: | ounty/Parish: | IL Comp | any: | MKS NWN | 1 WEC |
| VH | JUTTO | E | 27 | The second | W, E, 3 |
| Tract Number(s): | | Neare | st Milepost: | Associated We | etland ID(s): |
| 26-060-40 | 014 | | 52. | wsup | 031 |
| Survey Type: (check one) | Centerline | Re-Route | Access Road | Other: | |
| Physical Attributes | | | | | |
| Stream Classification: (check one) | □Ephemera | I Intermittent | □Perennial | | |
| Waterbody Type: (check one) | iver 🗆 Stro | eam 🗹 Ditch | Canal Other | | |
| OHWM Width: <u>/</u> ft. | OHWM Indicat (check all that apply | or:) DC on b | lear line Shelvin bank | g DWrested vegetation | □Scouring ⊡Water staining |
| Height: 0,8 ft. | □Bent, n vegetatio | natted, or missing DW | /rack line □Litter a debris | nd | t ESoil characteristic change ange |
| Width of Waterbody - Top | p of Width o | of Waterbody - Toe of | Slope Width of Waterb | ody - Water Edge to | Depth of Water: |
| Bank to Top of Bank: | to Toe | of Slope: | Water Edge: | 4 | (Approx.) |
| <u>6</u> ft. | _ | <u>5ft.</u> | | <u>7</u> ft. | ft. |
| | 18/atas | valaaihu | | | Bankslope |
| Sinuosity: (check one) | (Approx.) | Pelocity: | Right: | / | Right: 80 |
| ₽Straight | | O fps | | 6_ft. | degrees |
| | | | Left: | 6 _{ft.} | Len: 80 degrees |
| Qualitativo Attribute | | | | | |
| Water Appearance: | 3 | | 1 | | Second Contraction of the |
| (check one) | lo water 🗆 🗆 🛛 | Clear Turbid | Sheen □Su on surface sc | urface □Algal [um mats | _Other: |
| Substrate: 🗆 E | Bedrock 🗆 Bo | ulder 🗆 Cobble 🗆 | Gravel Sand | Silt/ clay Organic | : Other: |
| (check all that apply) % of Substrate: | % | _%% _ | <u>% 10 %</u> | 70% 20% | <u> </u> % |
| Width of Riparian Zone: | Vegetative | Layers: | | P.C. S. C. S. S. S. | |
| 10 . | (check all that | apply) | Trees: | Saplings/Shrubs: | I Herbs |
| | Avg. DBH (approx.) | of Dominants: _ | <u>6</u> in | in. | <u>_N 11_</u> in. |
| Dominant Bank Vegetation | on (list): | | 12 18 | | 17: 1 1 1 |
| Pinus taeda | . Lonic | era japonic | a, Rubura | rgutus, Liqu | udambar styracitiva |
| Aquatic Habitats (ex: subr | merged or emerged | aquatic vegetation, overt | nanging banks/roots, leaf page | cks, large submerged wood | , riffles, deep pools): |
| leaf pack | 1 | | | See. | |
| Aquatic Organisms Obse | erved (list): | | | | |
| None | | | | - Aller | |
| T&E Species Observed (| list): | | | | 122 4 12 |
| Disturbances (ex: livestoc Aariculture | k access, manure i run off | n waterbody, waste discha | arge pipes): | | |
| Tributary is: (check one) | □ Natural | PArtificial, | man-made 🛛 Manip | oulated | |
| Stream Quality *: (check one) | □ High | Moderate | e elow | | |
| | | a the state of a state of the s | and other advantations are as a real second second and the first of the | and a technicity state of a cost of the bar of the based | |

| | Waterbody ID: |
|--|---|
| | SSUD036 |
| High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on e roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available disturbance by livestock or man. | ach side; banks stable and protected by e; diverse and stable aquatic habitat; no |
| Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active cha or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, su film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock | annel width on each side; filtering function ubmerged objects covered with greenish ; or man. |
| Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural veg width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little t | etation less than 1/3 of the active channel water color is muddy and turbid; obvious o no aquatic habitat; severe disturbance |
| from livestock or man. Notes: | |
| | |
| | |
| | |
| and an and a second a second a second | |
| | |
| Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey b | ooundary, and IDs of associated features) |
| | |
| | T |
| | N |
| 1 | radia. |
| | tind. Bernetting |
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| SSUPOLIX | |
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| SSUPO36 Je | |
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Form Rev. 05/16/2014



Waterbody ssup036 facing west upstream.



Waterbody ssup036 facing east downstream.

Photo Sheet 1 of 2 6-85



Waterbody ssup036 facing south across bank.

| Linear Waterbody Da | ita Sneet | | | | |
|---|--------------------------------------|------------------------------|--|--|--|
| Survey Description | halatasha | du Namai | | Waterbody ID: | Date: |
| Project Name: | waterbo | uy Name: | 1 5 | ESU1077 | 1/8/11 |
| ACF | UN | Tto Qua | ker swamp | ssup of i | 170110 |
| State: Cour | ty/Parish: | Company: | Crew | Member Initials: | Photos: |
| VA 3 | Tuffolk. | E |)I M | ks, NWM | N, 1, N. |
| Tract Number(s): | and the second second | Nearest Mi | lepost: | Associated Wetland | ID(s): |
| 26-060-AU | >15 | | 52.1 | WSUP 03 | 7 |
| Survey Type: | | | and the second s | | and the second |
| (check one) | Centerline | Re-Route | □Access Road | Other: | |
| Physical Attributes | | | | | |
| Stream Classification: | | | (Terennial | Bar Bar . | |
| | | | | | |
| (check one) | N Stream | Ditch D | Canal Other: | | |
| | | | | and a street from the | |
| OHWM OI Width: | WM Indicator: eck all that apply) | Clear | ine DShelving | □Wrested | Scouring EWater |
| <u>6_ft.</u> | | on bank | | vegetation | staining |
| Height: | Bent, matted, or | missing Wrack | line Litter and | □Abrupt plant | □Soil characteristic cha |
| N/A | vegetation | | debris | community change | |
| Width of Waterbody - Top of | Width of Watert | ody - Toe of Slop | e Width of Waterbody - | Water Edge to Depth | of Water: |
| Bank to Top of Bank: | to Toe of Slope: | | Water Edge: | (Approx | 05 |
| <u> </u> | 8 | t. | 6 | _ft. | ft. |
| | | | | Bank | slone |
| Sinuosity: (check ane) | (Approx.) | , | Bank neight | Dank | Right: |
| □Straight | < | fps | 1 | _ft. | degr |
| Meandering | | The second | Left: 7 | 8 | Left: /O dea |
| | | And a strength of the second | | <u>-"- </u> | |
| Qualitative Attributes | | | | | |
| Water Appearance: (check one) | ater Delear | | heen | □Algal □Oth | er: |
| | | c | on surface scum | mats | Alexander Andre Salah |
| Substrate: Bed | ock 🗆 Boulder 🛛 | Cobble 🗆 Gra | vel Sand Silt | / clay 🛛 Organic 🛛 | Other: |
| (check all that apply) % of Substrate: | % | % | % 40 % 50 | % 10 % | % |
| | ///// | | _//// | | |
| Width of Riparian Zone: | Vegetative Layers: | 17- | | linge/Shaibe: d | Herbs |
| 200 ft. | Avg. DBH of Domin | ants: 6 | in Z | in ups/oritups: D | NA in. |
| N/A | (approx.) | | | | |
| Dominant Bank Vegetation | list): | A 1 | c.1 | - + 14. | 1.1 |
| Hrundinaria 5 | gantea, | fleer rubri | im, smilex | 107 Undito | lia |
| Aquatic Habitats (ex: submerg | ed or emerged aquatic v | egetation, overhangin | g banks/roots, leaf packs, lar | ge submerged wood, riffles | , deep pools): |
| leaf pack. | woody de | ebrise | | | |
| Aquatic Organisms Observe | d (list): | 11-2 | **** | | and a second of a second |
| Nooe | No. | | | | |
| , one | | in sing bard is | and the second | | <u></u> |
| T&E Species Observed (list) | | | | | |
| Ivone | | Section 1 | and the second former | | gebas as <u>a ses</u> alteré |
| Disturbances (ex: livestock ac | cess, manure in waterboo | ly, waste discharge p | pes): | | |
| None | | | | | |
| Tributary is: | 1 | | | and the second | |
| (check one) | I Natural | Artificial, man- | made | 1 | Add search and the states |
| Stream Quality *: | | 1 | | | |
| (check one) | ⊔ High | LY Moderate | Low Low | | and a state of the state of the state of the state |

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Waterbody ID: SSUP027

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Very poorly defined bed and bank

Notes:

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

channel ENDSIN WETLAND

date pt.

410 gr 26



Waterbody data point ssup027 facing north upstream.



Waterbody data point ssup027 facing south downstream.

Photo Sheet 1 of 2 6-89



Waterbody data point ssup027 facing northeast across bank.

Linear Waterbody Data Sheet

(

| Survey Description | | | | |
|--|---|--------------------------------------|--|---|
| Project Name: | Waterbody Name: | | Waterbody ID: | Date: |
| ACP | UNT to QUI | KOR SWANK | 5540035 | 1/8/16 |
| VA County/Parish: VA Suff | olk Es | I. | mks, NWM | VWISE, S |
| Tract Number(s): | Nearest Mile | epost: | Associated Wetland ID | (s): / |
| 26-060-A016 | | 52,2 | wsup 02 | |
| (check one) | ne IBRe-Route | □Access Road | Other: | |
| Physical Attributes Stream Classification: | | | | |
| (check one) | ral Eintermittent | Perennial | | |
| Waterbody Type: (check one) □ River □ S | tream 🖬 Ditch 🗆 Ca | anal 🗆 Other: | | |
| OHWM Width: <u>4,5</u> ft. OHWM Indic | ator: ^{Jy)} Clear lir on bank | ne 🗆 Shelving | □Wrested ISo vegetation | couring DWater staining |
| Height: 0.5 ft. Bent, vegetat | matted, or missing □Wrack li ion | ne Dicitter and debris | □Abrupt plant □ community change | Soil characteristic change |
| Width of Waterbody - Top of Width Bank to Top of Bank: to To ft. | of Waterbody - Toe of Slope of Slope: ft. | Width of Waterboo Water Edge: | dy - Water Edge to Depth of (Approx.) ft. N/A□ | <u>0,5</u> _{ft.} |
| Sinuosity: (check one) Meandering | rvelocity: fps | Bank height Right: Left: | H. Bank slo | pe Right: <u>80</u> degrees Left: <u>80</u> degrees |
| Qualitative Attributes | | | | |
| Water Appearance: | | | | |
| (check one) | Clear ⊠Turbid □Sh or | neen ⊡Surfa nisurface scurr | n mats | |
| Substrate: Bedrock E (check all that apply) % of Substrate: % | loulder 🗆 Cobble 🗆 Grav | el 🛛 Sand 🖾 _% <u>10 % §</u> | 'Silt/ clay I⊈Organic □ Oth 30_% _/0_% | ner: % |
| Width of Riparian Zone: Vegetati | ve Layers: | | | No. |
| 10 ft. (check all th Avg. DB | at apply) | s: 🗹 _in | Saplings/Shrubs: | erbs Alin. |
| Dominant Bank Vegetation (list): | | 144 B | | |
| Lonicerajaponica | , Ligustrum sin | iense, Sal | ix nigra | |
| Aquatic Habitats (ex: submerged or emerg | ed aquatic vegetation, overhanging | banks/roots, leaf packs | s, large submerged wood, nmes, de | ep pools): |
| Aquatic Organisms Observed (list): | | - | | |
| tadpoles | | | and the second | |
| T&E Species Observed (list): None | | | 1/ 100 | 1.4 |
| Disturbances (ex: livestock access, manure Agriculture rune | in waterbody, waste discharge pip テーチ | es): | | |
| Tributary is: (check one) Natural | I Artificial, man-m | nade 🗆 Manipul | ated | |
| Stream Quality *: (check one) | Moderate | L'Low | | |

Waterbody ID: SI High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) 55UP035 (shats condo 20 9a xa tree line WSUP 021



Waterbody ssup035 facing northwest upstream.



Waterbody ssup035 facing southeast downstream.


Waterbody ssup035 facing south across bank.

| Survey Description Project Name: | | the second s | | |
|---|---|---|---|---|
| Project Name: | A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O | | Natasha du ID: | Date: |
| | Waterbody Name: | | vaterbody ID: | 12/8/16 |
| ACP | LINT to Qual | KER SUBMO | 550032 | 10/0/13 |
| State: County/Parish: | Company: | Crew | Member Initials: Photo | s: Facing |
| VA SUFFOI | IK ESJ- | -1 MI | (SIKSIM SI | NIN |
| Tract Number(s): | Nearest Mil | epost: | Associated Wetland ID(s): | |
| 26-060-2016 | | NA | WSUB Ø2 | 4 |
| (check one) | e DRe-Route | Access Road | Other: | 000 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 |
| Physical Attributes | | | | |
| (check one) | al Dintermittent | □Perennial | | |
| Waterbody Type: (check one) | ream 📴 Ditch 🗆 C | anal 🗆 Other: | | |
| OHWM OHWM Indica Width: | tor: W D Clear li on bank | ne DShelving | □Wrested □Scou vegetation | ring DWater staining |
| Height: <u>5</u> ft. Bent, I N/A | matted, or missing DWrack I on | ine Litter and debris | □Abrupt plant □So community change | il characteristic change |
| Width of Waterbody - Top of Width Bank to Top of Bank: to Toe | of Waterbody - Toe of Slope of Slope: ft. | Width of Waterbody - Water Edge: | Pater Edge to Depth of Wa (Approx.) _ft. N/A□ | ater:) <u>, 5_</u> ft. |
| Sinuosity: (check one) Straight Meandering N/A□ | velocity: fps | Bank height Right: | _ftft. | ght: <u>45</u> degrees .eft: <u>45</u> degrees |
| Qualitative Attributes | | | | |
| Water Appearance: (check one) | Clear Turbid | heen | □Algal □Other: mats | |
| | oulder 🗆 Cobble 🗆 Grav | el Sand Silt/ | clay Organic Other: | |
| Substrate: Bedrock Bi (check all that apply) % of Substrate: % | %% | <u>% 20 % 80</u> | _%% | % |
| Substrate: Bedrock Bi (check all that apply) % of Substrate:% Width of Riparlan Zone: Vegetativ <u>50 ft</u> . Avg. DBH (check all that Avg. DBH | %% e Layers: at apply) | _% <u>20 % 50</u> s: | _%% ings/Shrubs: DHerb _in | % s _in. |
| Substrate: Bedrock Bi (check all that apply) % of Substrate: % Width of Riparian Zone: Vegetativ <u>50 ft</u> . Vegetativ (check all that Avg. DBH N/A D Dominant Bank Vegetation (list): CI-CHWA ANTEOLOGY | e Layers: It apply) It of Dominants: 6 | _% <u>20 % 50</u> s: <u>disapl</u> _in. <u>2</u> A MOYELIA (| _%% ings/Shrubs: DHerb _in. NA Mercus nigv ter:fero | % _in. |
| Substrate: Bedrock B (check all that apply) % of Substrate:% Width of Riparian Zone: Vegetativ <u>50 ft</u> . Vegetativ (check all that Avg. DBH N/A D Dominant Bank Vegetation (list): CI-EHWA ANFOIDA Aquatic Habitats (ex: submerged or emerged Submarged Parts | -%% The Layers: A of Dominants: G Pinus faed of Pinus faet of Pinus fae | _% <u>20 % 50</u> .s: <u>is sapl</u> _in. <u>2</u> | <u>%</u> % <u>Kerb</u> ings/Shrubs: <u>NA</u> in. <u>NA</u> <i>Lercus Ngv</i> <i>er:fero</i> resubmerged wood, riffles, deep | % _in. pools): |
| Substrate: Bedrock Bi (check all that apply) % of Substrate:% Width of Riparian Zone: Vegetativ <u>50 ft</u> . Vegetativ (check all that Avg. DBH N/A D Dominant Bank Vegetation (list): CI-EHWA ANFOID Aquatic Habitats (ex: submerged or emerged Submarged leaved Aquatic Organisms Observed (list): NON-C | -%% re Layers: th apply) of Dominants: G Pinus taedo ed aquatic vegetation, overhanging e S | _% <u>20 % 50</u> s: <u>is</u> sapl _in. <u>2</u> A/MOYELIA (g banks/roots, leaf packs, larg | <u>%</u> <u>%</u> ings/Shrubs: DHerb <u>in</u> . <u>NA</u> <u>uercus</u> <u>nigv</u> <u>er:fero</u> esubmerged wood, riffles, deep | % _in. / A pools): |
| Substrate: Bedrock Bi (check all that apply) % of Substrate:% Width of Riparian Zone: Vegetativ <u>50 ft</u> . Vegetativ (check all that Avg. DBH (approx.) Dominant Bank Vegetation (list): CI-EHWA ANIFOLIA Aquatic Habitats (ex: submerged or emerged Submarged leave Aquatic Organisms Observed (list): NON-E T&E Species Observed (list): OCO-E | _%% Te Layers: A of Dominants: Prree Prree Prree Prree Prree Prree Prree Prree Prree | _% <u>20 % 50</u> s: <u>i</u> Sapl _in. <u>2</u> A MOYELIA (g banks/roots, leaf packs, larg | _%% ings/Shrubs: DHerb _in. NA vercus nigv er:fero re submerged wood, riffles, deep | s in. |
| Substrate: Bedrock Bi (check all that apply) % of Substrate:% Width of Riparian Zone: Vegetativ <u>50 ft</u> . Vegetativ (check all that Avg. DBH N/A D Dominant Bank Vegetation (list): CI-EHWA ANFOID Aquatic Habitats (ex: submerged or emerged Submarged leaved Aquatic Organisms Observed (list): NON-C T&E Species Observed (list): NON-C Disturbances (ex: livestock access, manure | % % e Layers: Free at apply) Free at of Dominants: G A of Dominants: G at aquatic vegetation, overhanging G ad aquatic vegetation, overhanging G in waterbody, waste discharge pip | _% <u>20 % 50</u> s: <u>is sapl</u> in. <u>2</u> (A) MOYELLO (g banks/roots, leaf packs, larg | <u>%</u> <u>%</u> ings/Shrubs: DHerb <u>in</u> . <u>NA</u> <u>uercus</u> <u>nigv</u> <u>er:fero</u> te submerged wood, riffles, deep | % in. pools): |
| Substrate: Bedrock Bi (check all that apply) % of Substrate:% Width of Riparian Zone: Vegetativ <u>50 ft</u> . Vegetativ (check all that Avg. DBH (approx.) Dominant Bank Vegetation (list): CI-CHWA ANIFOLIA Aquatic Habitats (ex: submerged or emerged Submerged leave Aquatic Organisms Observed (list): NON-C T&E Species Observed (list): NON-C Disturbances (ex: livestock access, manure Mon MOL ditC | _% _% re Layers: Free it apply) PTree d of Dominants: G , Pinus tacdo G ed aquatic vegetation, overhanging G ed S G | _% <u>20 % 50</u> s: <u>issapl</u> in. <u>2</u> MOYELLO (banks/roots, leaf packs, larg | _%% ings/Shrubs: DHerb _in. NA uercus nigv er:fero resubmerged wood, riffles, deep | % in. pools): |
| Substrate: Bedrock Bi (check all that apply) % of Substrate:% Width of Riparian Zone: Vegetativ <u>50 ft</u> . Vegetativ (check all that Avg. DBh (approx.) Dominant Bank Vegetation (list): CI-CHWA ANIFOLIA Aquatic Habitats (ex: submerged or emerged Submerged leave Aquatic Organisms Observed (list): NON-C T&E Species Observed (list): NON-C T&E Species Observed (list): NON-C T&E Species Observed (list): NON-C T&E Species Observed (list): NON-C Tibutary is: (check one) Disturbation (list): Natural | % % e Layers: Free at apply) Free at of Dominants: G A of Dominants: G A pinus for a contract of a contracontract of a contract of a contract of a contract of | _% <u>20 % 50</u> s: <u>issapl</u> in. <u>2</u> (A) MOYELLO (pbanks/roots, leaf packs, larg pes): made | <u>%</u> <u>%</u> ings/Shrubs: <u>in</u> . <u>NA</u> <u>uercus</u> <u>nigv</u> <u>er:fero</u> esubmerged wood, riffles, deep | % in. pools): |

(

C

Waterbody ID: SSUP 032 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) up SUP O24 w X 5510032



Waterbody data point ssup032 facing south upstream.



Waterbody data point ssup032 facing north downstream.

Photo Sheet 1 of 2 6-97



Waterbody data point ssup032 facing west across bank.

| Linear Waterbod | y Data Sheet | | | | | | | |
|---|--|---------------------------------------|----------------------|-----------------------------------|----------------------------|------------------------------|--|--|
| Survey Description | n | | | | | | | ID the |
| Project Name: | | Waterbody Nar | ne: | | Wa | terbody ID: | F | Date: |
| ACP | | UNT to | Quake | R SUDAMO | | Ssupus | 10 | 12/0/13 |
| State: | County/Parish: | | Company: | 1 | Crew M | ember Initials: | Photos: | facing |
| VA | SUFFO | IK | ESI- | | MK | SIKSM | SE, | NW, SW |
| Tract Number(s): | | | Nearest Mile | post: | 1 | Associated Wetla | Ind ID(s): | |
| 26-060-A0 | 16,26-0 | 60-A017 | | NA | | WSUP | Ø24 | |
| Survey Type: (check one) | Centerline | DRe-F | Route | □Access Road | Net an I | Other: | | |
| Physical Attributes | 5 | | | | | | | |
| Stream Classification: (check one) | Ephemera | | mittent | □Perennial | | | | a linasi |
| Waterbody Type: (check one) | River 🗆 Str | eam 🗈 Dito | h □Ca | anal 🗆 Other | : | | | |
| OHWM Width: <u>3</u> ft. | OHWM Indicat (check all that apply | or:) | Clear lin on bank | e □Shelvin | g | □Wrested vegetation | □Scourin | ig ElWater staining |
| Height: <u>5</u> ft. | □Bent, n vegetatio | natted, or missin n | g ⊡Wrack lir | ne DLitter an debris | nd | Abrupt plant community chang | □Soil o je | characteristic change |
| Width of Waterbody - T Bank to Top of Bank: | op of Width of to Toe | of Waterbody - " of Slope: 3ft. | Foe of Slope | Width of Waterb Water Edge: | ody-Wa <u>3</u> ft. | Iter Edge to Del | pth of Wate prox.) | er: • <u>5 f</u> t. |
| Sinuosity: (check one) ⊡Straight | Water (Approx.) | velocity: fr | 05 | N/A⊔ Bank height Right: | ft. ft. | Ba | nk slope Righ Le | ft: <u>45</u> degrees ft: <u>45</u> degrees |
| Qualitative Attribu | 100 | | ALC: NOT | | a series | 1. B. | | A BAR AND |
| Water Appearance: (check one) | No water | Clear 🗆 Turb | id ⊡Sh on | een ⊡Su surface sc | rface um | □Algal □C mats | ther: | |
| Substrate: (check all that apply) % of Substrate: |] Bedrock 🗆 Bo | ulder 🗆 Cobb | le 🗆 Grave | el ⊡rSand I _% <u>IØ</u> % | 90 % | ay 🗆 Organic | Other: | |
| Width of Riparian Zone 50 ft . | c: Vegetative (check all that Avg. DBH | e Layers: apply) of Dominants: | Trees | : [_in | Sapling | gs/Shrubs: in. | Herbs NA i | n. |
| Dominant Bank Vegeta | tion (list): | | | Liquido | mbar | styrac | 18141 | 9 |
| TIEX OPACI | on, Arundi | aria gi | gon+eo | banks/roots, leaf pac | $1 \leq 1$ cks, large s | submerged wood, riff | les, deep poo | ols): |
| leaf pack | -5 | | | | | | | |
| Aquatic Organisms Ob | served (list): | | | | | | | |
| none | (#=A). | and the second | | | C. S. Martin | and the state | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | |
| T&E Species Observed | (<i>list</i>): | | | | | | | |
| Disturbances (an line) | ack accord manual | n waterbody wast | a discharge nine | ae). | | | | |
| Man Man | le ditc | G | anonanae hihe | | | | | |
| Tributary is: | | Dar | lificial man-m | ade 🗆 Manin | oulated | | | |
| Stream Quality *: | | | | manp | | No. | 1.5.95000 | the state of the second |
| (check one) | High | CP Ma | oderate | Low | | | | |

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5500031 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) W WSUP 023 up WSUP 024 550p031

Waterbody ID:



Waterbody data point ssup031 facing southeast upstream.



Waterbody data point ssup031 facing northwest downstream.

Photo Sheet 1 of 2 6-101



Waterbody data point ssup031 facing southwest across bank.

| inear Waterbody Data Shee | t | | Co. 8 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - | IN STREET, AND STREET, STR | 010 5 20 4 5 A | |
|--|---|--|--|--|-------------------------------|--|
| Survey Description | | | Sector of | Waterbadu ID: | A CARLEN | Date: |
| Project Name: | Waterbody Na | me: | | Waterbody ID: | 4 | 7/9/16 |
| HCP | 4NTto | Speights F | YN | 554002 | | 21110 |
| State: County/Parish: | 11/ | Company: | | Crew Member Initia | is: Phot | os: Facing |
| VH Suffc | NK | 651 | | LK, MD | 5 | IN,E |
| Tract Number(s): | 2_ | Nearest Milepost: 53.9 | | Associated W5 | wetland ID(s) wo02.8 |): |
| | | | | | | |
| check one) | e ØRe-F | Route DAcc | cess Road | Dother: | Charles and the second second | N MAR OF A PLAN PROVIDENCE |
| Physical Attributes | | | | | | |
| tream Classification: theck one) | al 🖾 Inter | mittent DPer | rennial | | | |
| Vaterbody Type: check one) | ream 🗗 Dito | ch 🗆 Canal | Other: | | | |
| Width: 3 ft. | ator: /y) | Clear line on bank | Shelving | □Wrested vegetation | Sco | uring DWater staining |
| Height: 0.5 ft. Vegetati | matted, or missin on | g 🗆 Wrack line | □Litter an debris | d DAbrupt pl community | ant 🗆 S change | oil characteristic change |
| Vidth of Waterbody - Top of Width lank to Top of Bank: to Toe ft. | of Waterbody - ' of Slope: <u>3</u> ft. | Toe of Slope Width o Water I N/A□ | of Waterbo Edge: | ody - Water Edge to <u>3</u> ft. | Depth of W (Approx.) | /ater: <u>05</u> t. |
| inuosity: theck one) Straight Water (Approx. □Meandering N/A□ | velocity: | Bank h | eight Right: Left: | lff | Bank slope R | ight: <u>80</u> degrees Left: <u>80</u> degrees |
| Qualitative Attributes | | Contract of Card | | | | |
| Nater Appearance: check one) | Clear DTurt | oid □Sheen on surface | ⊡Sur scu | face □Algal m mats | □Other: | |
| Substrate: Bedrock Be | oulder 🗆 Cobb | ole □ Gravel 🕅 _%% 🛂 | Sand 5 | Silt/clay □ Organ | nic 🗆 Other _% | r: _% |
| Nidth of Riparian Zone: Vegetativ (check all the Avg. DBi (approx.) | ve Layers: at apply) I of Dominants: | X _{Trees:} in. | je - | Saplings/Shrubs: 2in. | 凶.Her 」、) | bs <mark>1</mark> in. |
| Arundinaria giga | ntea, P | inus taeda | - | | | |
| Aquatic Habitats (ex: submerged or emerg | ed aquatic vegetatic | on, overhanging banks/roo | ots, leaf paci | ks, large submerged wo | ood, riffles, deep | pools): |
| Aquatic Organisms Observed (list): None observed | | an a | | 4 | | |
| RE Species Observed (list): NONE OBSERVED | ł | | | | | |
| Disturbances (ex: livestock access, manure | in waterbody, wast | e discharge pipes): | | and the second | | |
| ag field edge | 2 | | | and a second states | | |
| Tributary is: (check one) | | rtificial, man-made | Manip | ulated | | and the second of |
| Stream Quality *: | - Ann | odorsta | [] Low | | | |

C

Waterbody ID: 5540024 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) Deer Path Rd SSLODZS POINT Form Rev. 05/16/2014



Waterbody data point ssuo024 facing south upstream.



Waterbody data point ssuo024 facing north downstream.

Photo Sheet 1 of 2



Waterbody data point ssuo024 facing east across.

| Linear Waterbody Data Shee | et | | | |
|---|--|---------------------------------|---|---|
| Survey Description | | - An erick is | Waterbody ID: | Date: |
| Project Name: | Waterbody Name: | . 0. | Traterbouy ib. | 5 219116 |
| HCT | UNI to 20: | EIGHTS KYN | 550000 | Inhatosi 6 |
| State: County/Parish: | Company: | C | rew Member Initials: | Photos: Facing |
| VH Suffo | K ESJ | - | LK, MS | W, E,S |
| Tract Number(s): 26-060-A02 | L2 Nearest Mi | lepost: 3.9 | Associated Wetlar | A ID(s): |
| Survey Type: (check one) | e Re-Route | □Access Road | □Other: | And Antonio and April British State |
| Physical Attributes | 建立 化均衡 网络打印花 | | | |
| Stream Classification: (check one) | ral Dintermittent | □Perennial | | |
| Waterbody Type: (check one) | tream 🗶 Ditch 🗆 0 | Canal Other: | | |
| OHWM OHWM Indic Width: 4 ft. | ator: U Clear I on bank | line Shelving | □Wrested vegetation | □Scouring □Water staining |
| Height: 0.9 ft. Vegetati | matted, or missing DWrack on | line Litter and debris | Abrupt plant community change | ☐Soil characteristic change |
| Width of Waterbody - Top of Width | of Waterbody - Toe of Slop | e Width of Waterbod | ly - Water Edge to Dep | th of Water: |
| Bank to Top of Bank: to Toe | e of Slope: | Water Edge: | (| |
| ft. | <u> </u> | 7 | ftN/A! |] |
| Sinuasitur Watar | velocity: | Bank height | Ban | k slope |
| (check one) (Approx | .) | Right: | 2 | Right: 70 degrade |
| Gustraight | fps | Left: 0 | <u>ft.</u> | Left: L |
| Meandering N/A | | | ft. | <u>45</u> degrees |
| Qualitative Attributes | | | | |
| Water Appearance: | | | | har |
| (check one) DNo water | Clear Turbid DS | Sheen Surfa on surface scurr | n mats | ner. |
| Substrate: 🛛 Bedrock 🗆 E | loulder 🗆 Cobble 🗆 Gra | vel X Sand X | Silt/ clay Organic |] Other: |
| (check all that apply) % of Substrate: % | % _% | % 60 % 4 | 10 %% | % |
| | | | | |
| Width of Riparian Zone: Vegetati | at apply) | es: | Saplings/Shrubs: | A Herbs |
| do ft. Avg. DB | H of Dominants: | in | in. | <u>MP</u> in. |
| N/AL (approx.) | the state of the s | | | - 11- |
| Juncus effusus, | Rubus argu. | tus, Pers | icaria sag | ittata |
| Aquatic Habitats (ex: submerged or emerg | ed aquatic vegetation, overhangin | ng banks/roots, leaf packs | s, large submerged wood, nm | es, deep poors): |
| none observed | | | Mr. Millians. | |
| Aquatic Organisms Observed (list): | | | | |
| non-e observe | 9 | | | and the alternation of the |
| T&E Species Observed (list): | 1 | | | |
| none observe | C | Martin Bart | | and a state of the state of the |
| Disturbances (ex: livestock access, manun | e in waterbody, waste discharge p | ipes): | | |
| roadside ag. + | eld edge d | itch | | |
| Tributary Is: (check one) | I Artificial, man- | -made 🗆 Manipul | lated | |
| Stream Quality *: | VI Moderate | | | |
| High | A Moderate | | Water and Trade Water and the second of a second | A CONTRACT OF |

C





Waterbody data point ssuo025 facing west upstream.



Waterbody data point ssuo025 facing east downstream.



Waterbody data point ssuo025 facing south across.

| Linear Waterbody | Data Sheet | | | 2122 C. S. S. S. | CONTRACTOR STATE | - | 151 3578 (S.C.) |
|----------------------------------|---|-------------------------------|--------------------------------|---------------------|---|----------------------|--|
| Survey Description | | | and a submittee | har | aterbody ID: | 100000 | Date: |
| Project Name: | Waterboo | dy Name: | ~ | — | 664002 | 0 | 7 19116 |
| HCF | UNI | TO SPERH | IS KUN | 10 | ambar Initials: | Photos: | -TITO |
| State: C | county/Parish: | Company: | | Crewin | M K | - | Facing |
| VH | SUTTOIK | C EST | | LF | -11-10 | EI | W, N |
| Tract Number(s): | .0 | Nearest Milep | ost: | | Associated wetian | 0.077 | |
| 26-06 | 0-4023 | - | 04.D | | MON | puer | 1. Call and the second |
| Survey Type: | | Re-Route | □Access Road | Navi ten | Other: | | |
| Physical Attributes | の代表で変換的ななない | A BARRATAN | | 目的 | | STEP STAR | |
| Stream Classification: | | , | | | | | |
| (check one) | □Ephemeral) | Dintermittent | | | | | |
| Waterbody Type: (check one) | liver 🗆 Stream | Ditch 🗆 Car | nal 🗆 Other | : | | | |
| OHWM Width: 3 ft. | OHWM Indicator: (check all that apply) | Clear line on bank | e □ Shelvin | g | □Wrested vegetation | Scouring | g 🗆 Water staining |
| Height: 0.5 ft. | Bent, matted, or vegetation | missing DWrack lin | e 🗆 Litter a debris | nd | CAbrupt plant community change | ⊡Soil cl e | haracteristic change |
| Width of Waterbody - To | p of Width of Waterb | ody - Toe of Slope | Width of Waterb | ody - W | ater Edge to Dep | th of Water | • |
| Bank to Top of Bank: | to Toe of Slope: | | Water Edge: | 2 | 1 Pr | | D.7 # |
| <u> </u> | f | L | | ا f | t. N/A | | |
| Sinuosity: | Water velocity: | | Bank height | | Ban | k slope | |
| (check one) | (Approx.) | - | Right: | 2. | a | Right | · 76 degrees |
| Yourgu | <u> </u> | fps | Left: | 7 | | Lef | |
| | N/A | States and | - | 6 | ft. | to set pt the da | degrees |
| Qualitative Attribute | es | | | | | | |
| Water Appearance: (check one) | lo water KClear | □Turbid □She on | een ⊡Su surface so | urface :um | □Algal □O mats | ther: | • |
| Substrate: | Bedrock 🗆 Boulder 🗆 | Cobble Grave | Sand | CA Silt/ c | lay 🗆 Organic | Other: | |
| (check all that apply) | 0/. % | % | % 6D % | 40 | %% _ | % | |
| | 7474 | and Langer | | | | WWE Link. | an and the second s |
| Width of Riparian Zone: | Vegetative Layers: | Trees | | Saplin | ngs/Shrubs: | Herbs | |
| 30 ft. | Avg. DBH of Domin | nants: 4 | in. | 2 | _in. | NA ir | l. ' |
| N/A | (approx.) | Providence and a construction | | | | a contraction of the | |
| 1 invidamba | r styraliflua | , Arunding | aria gi | gan | tea | | |
| Aquatic Habitate (av. sub | merged or emerged aquatic v | egetation, overhanging t | panks/roots, leaf pa | cks, large | submerged wood, riff | les, deep poo | ls): |
| leaf packs | | | | | | | |
| Aquatic Organisms Obs | erved (list): served | | | | | | |
| T&E Species Observed | (list): | | | | | | |
| none o | bserved. | | | | | . Asharina | and the second second |
| Disturbances (ex: livestoo | ck access, manure in waterboo | dy, waste discharge pipe | s): | N. S. | 4 mar 1+1 + | | |
| roadside | ditch | | | | | April 1990 - Star | |
| Tributary is: (check one) | □ Natural | Artificial, man-m | ade 🗆 Mani | pulated | | | |
| Stream Quality *: | High | Moderate | | | | | |
| (uneux une) | - rigit | Millouciate | CANADA SALAR SALAR SALAR SALAR | C. C. MARKING MICH. | マイキャット (ありち) かたり (など) 引き たたいないた (ないないであい) | A COLOR OF COLORAD | and the set of the set |

C



Form Rev. 05/16/2014



Waterbody data point ssuo026 facing east upstream.



Waterbody data point ssuo026 facing west downstream.



Waterbody data point ssuo026 facing north across.

| Linear Waterbody Data She | eet | | | |
|---|--|-----------------------------|-------------------------------------|--|
| Survey Description | | | | |
| Project Name: | Waterbody Name: | | Waterbody ID: | Date: |
| AC | UNTTO Coho | on Creek | ssur 008 | 20 Jan 2016 |
| State: County/Parish | Company: | | Crew Member Initials: | Photos: |
| VA Suffo | IK ES | l | CAJ CSM | SE, W, NE |
| Tract Number(s): | Nearest M | ilepost: | Associated Wetland | I ID(s): |
| 26-040-A021 | 6 54. | . (0 | Wsuroc | 14 |
| (check one) | line DRe-Route | □ Access Road | □Other: | |
| Physical Attributes | | | Second Second Second | and a second |
| (check one) | neral Intermittent | | | |
| Waterbody Type: (check one) | Stream Ditch 🗆 | Canal | | |
| OHWM OHWM Indi | icator: | | | |
| Width:ft. (check all that a | apply) Clear on bank | line Shelving | Wrested [vegetation | ∃Scouring ⊠Water staining |
| Height: 0,5 tt. DBen vegeta | it, matted, or missing □Wrack ation | line DLitter an debris | d □Abrupt plant community change | □Soil characteristic change |
| Width of Waterbody - Top of Wid | th of Waterbody - Toe of Slop | e Width of Waterbo | ody - Water Edge to Depth | of Water: |
| Bank to Top of Bank: to T | oe of Slope: | Water Edge: | (Approx | 56 |
| ft. | ft. | | <u>ft.</u> N/A□ | <u>ft.</u> |
| Sinuosity: Wat | er velocity: | Bank height | Bank | slope |
| Straight | | Right: | 1 + | Right: (00 degrees |
| □Meandering N/A | tps | Left: | /tt | Left: 6 Odegrees |
| Qualitative Attributes | | | | |
| Water Appearance: | | 7.2.5 | | |
| (check one) | Clear DTurbid D | Sheen Sur on surface scu | face □Algal □Oth m mats | er: |
| Substrate: Bedrock | Boulder 🗆 Cobble 🗆 Gra | avel 🗆 Sand 🛛 | Silt/ clay Organic | Other: |
| % of Substrate:% | %% | _%% | <u>% 100 %</u> | % |
| Width of Riparian Zone: Vegeta | tive Layers: | | | |
| 20 ft. (check all | that apply) | ees: [| Saplings/Shrubs: | € Herbs |
| N/A | | <u>~_</u> ni: _ | | <u></u> |
| Pinus taeda, | Liquidambar | - styracif | ilua, Arundin | aria gigantea |
| Aquatic Habitats (ex: submerged or eme | erged aquatic vegetation, overhangi | ing banks/roots, leaf pac | ks, large submerged wood, riffle | s, deep pools): |
| None | | | A STATE | |
| Aquatic Organisms Observed (list): | | | | |
| None | | | | |
| T&E Species Observed (list): | | | | |
| Disturbances (ex: livestock access, man | ure in waterbody, waste discharge | pipes): | | |
| Waterline Utili | ty casement | | | |
| Tributary is: | | | idea.d | |
| Stream Quality *: | irai Antificial, mar | n-made 🗆 Manip | DUIATED | |
| (check one) | Moderate | 🗆 Low | | |

Waterbody ID: SSur 00%

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) W54r007 55ur 008 (APPAGE ponterline Water ine Antridor



Waterbody ssur008 facing southeast upstream.



Waterbody ssur008 facing west downstream.



Waterbody ssur008 facing northeast across bank.

| Linear Waterbody Data | Sheet | in the second second | | |
|---|--|--|--|------------------------------------|
| Survey Description | | | | |
| Project Name: | Waterbody Name: | | Waterbody ID: | Date: |
| ACP | UNTToLak | e Comon | 5540118 | 10/11/16 |
| State: County/P | arish: Compar | ny: Cr | rew Member Initials: | Photos: Facing |
| VA Sut | FFOIK ES | I | RT, LR | NW, SE, NE |
| Tract Number(s): | Nearest | Milepost: | Associated We | tland ID(s): |
| 20-000- M | 1007 | 20.3 | WSHOD 4 | 5 published a shift a proposi |
| Survey Type: (check one) | enterline | □Access Road | Other: | |
| Physical Attributes | | | | |
| Stream Classification: (check one) | ohemeral Intermittent | | per parte pare en Present | |
| Waterbody Type: (check one) | © Stream □ Ditch I | □ Canal □ Other: | 1.7 | a constant for a second |
| OHWM Width:ft. | I Indicator: (that apply) □ Cle on bar | ar line ⊡Shelving nk | □Wrested vegetation | □Scouring □Water |
| Height:ft. ve | Bent, matted, or missing □Wra egetation | ick line □Litter and debris | □Abrupt plant community cha | □Soil characteristic change nge |
| Width of Waterbody - Top of Bank to Top of Bank: | Width of Waterbody - Toe of Si to Toe of Slope: | ope Width of Waterbody Water Edge: | y - Water Edge to D | epth of Water: pprox.) |
| ft. | _ <u>3_ft.</u> | N/A | ft | /A□ft. |
| Sinuosity: | Water velocity: | Bank height | В | ank slope |
| (check one) | (Approx.) | Right: 2 | | Right: GD |
| | fps | Left: | <u> </u> | degrees |
| Meandering | N/A | 3 | ≥ft. | <u>9D</u> degrees |
| Qualitative Attributes | | | | |
| Water Appearance: | ~ | | NA MARKANA ANA ANA ANA ANA ANA ANA ANA ANA ANA | |
| (check one) UNo water | ØÇlear ⊡Turbid (| □Sheen □Surfac on surface scum | ce 🗆 Algal 🗆 mats | Other: |
| Substrate: Bedrock | 🗆 Boulder 🗆 Cobble 🗆 C | Gravel 🖾 Sand 🗆 S | Silt/ clay | Other: |
| (check all that apply) % of Substrate: % | 0/0 0/0 | % 100% | % % | 0/6 |
| | | ^ | % | ^ |
| Width of Riparian Zone: Veg | getative Layers: | in an | anlines (Charles | Col Handa |
| 30 ft. Ave | g. DBH of Dominants: | rees: عاهر S in | aplings/Snrubs: | A)A-in |
| N/A | prox.) | 3655 | <u> </u> | _ <u></u> ,; |
| Ilex opaca, Li | quidambar styr | raciflua, Arun | ndinaria o | jigantea |
| Aquatic Habitats (ex: submerged or | emerged aquatic vegetation, overhan | ging banks/roots, leaf packs, l | large submerged wood, r | iffles, deep pools): |
| submerged log | s, overhanging | roots, lea | f packs | |
| Aquatic Organisms Observed (lis | t): | | | |
| none | | | | |
| T&E Species Observed (list): | | and the second | | |
| none | | | | |
| Disturbances (ex: livestock access, r | manure in waterbody, waste discharge | e pipes): | | |
| Tributary is: | | | | |
| (check one) | atural 🛛 Artificial, ma | in-made 🛛 🗆 Manipulat | ted | |
| Stream Quality ^a : (check one) | ligh Moderate | 🗆 Low | | |
| | | | | |

Waterbody ID: SSW0118 High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or bank vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: (Hurricane Matthew) Heavy rain within 72 hrs. [approx. 11"] Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point locations, survey boundary, and IDs of associated features) SSyoll7 V 5540118 WSuo Dys



Waterbody data point ssuo118 facing northwest upstream.



Waterbody data point ssuo118 facing southeast downstream.



Waterbody data point ssuo118 facing northeast across bank.

| Linear Waterbody Data Sheet | | |
|--|--|------------------------------------|
| Survey Description | | |
| Project Name: Waterbody Name: | Waterbody ID: | Date: |
| ACP LINTTO Lake Cohoon | 55 WO 117 | 10/11/16 |
| State: County/Parish: Company: Crew | w Member Initials: Photos: | Facing |
| VH Suffolk ESI R | TILR N. | S.E |
| Tract Number(s): Nearest Milepost: | Associated Wetland ID(s): | 0,0 |
| 26-060-A029 55.4 | wshod44 | Low Gashige Ris Risking Sathgan |
| (check one) Centerline CRe-Route Access Road | □Other: | |
| Physical Attributes | | |
| (<i>check one</i>) | | |
| Waterbody Type: (check one) □River ♀ Stream □ Ditch □ Canal □ Other: | L., 1997 | ¥. |
| OHWM Indicator: Width:ft. OHWM Indicator: (check all that apply) | □Wrested □Scouring vegetation | g ⊟Water staining |
| Height:ft. /Bent, matted, or missing Wrack line /Litter and debris | □Abrupt plant □Soil cl community change | haracteristic change |
| Width of Waterbody - Top of Width of Waterbody - Toe of Slope Width of Waterbody - | Water Edge to Depth of Water | : |
| S 3 4 | (oppier) | 1 12 11 |
| ftftft | _ft | π. |
| Sinuosity: Water velocity: Bank height | Bank slope | |
| (check one) (Approx.) Right: | Right | 90 |
| fpsLeft: | ft. Left | degrees |
| Meandering N/A | ft. | <u>70</u> degrees |
| Qualitative Attributes | | |
| Water Appearance: | | |
| on surface scum | mats | |
| Substrate: | / clay Organic Other: | |
| (check all that apply) % of Substrate: % % % 15 % 8.5 % | 0/2 0/2 0/2 | |
| | 7070 | |
| Width of Riparian Zone: Vegetative Layers: | lines (Charles 🗸 Usela | |
| <u>50 ft</u> . Avg. DBH of Dominants: 9 in | in NA in | |
| N/A (approx.) | | |
| Ligustrum sinenses, Smilax rotundifolia, | Liquidambar st | yraciflua |
| Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, larg | ge submerged wood, riffles, deep pool | s): |
| submerged wood | | |
| Aquatic Organisms Observed (list): | and the second | |
| none | | |
| T&E Species Observed (list): | | |
| none | | |
| Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): | | 1 |
| none | | |
| Tributary is: (check one) DNatural DArtificial, man-made DManipulated | 1 | |
| Stream Quality *: (check one) | | |

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Waterbody ID: 5540 117 High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or bank vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: (Hurricone Matthew) Heavy rain within 72hrs. Eapprox. 11"] Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point locations, survey boundary, and IDs of associated features) data pant 5540 117 wsuo Oyy 55-100118



Waterbody data point ssuo117 facing north upstream.



Waterbody data point ssuo117 facing south downstream.



Waterbody data point ssuo117 facing east across bank.



Waterbody dsup010 facing northwest upstream.



Waterbody dsup010 facing southeast downstream.



Waterbody dsup010 facing southwest across bank.

| Survey Description | | | Frank Street Street | har-to-h-du ID: | | Date: |
|--|--|--------------------------|-----------------------------------|---|---------------------------|--|
| Project Name: | Water | body Name: | | waterbody ID: | 910 | 1/2/1 |
| ACP | 4 | NT to Coh | OON CREEK | ssup | 011 | 1/0// |
| State: VA S | nty/Parish: uffolk | Company | SI | Crew Member Initia MKS / NU | IS: Photos | ; SW, NW |
| Tract Number(s): | and a spin spin of | Nearest N | lilepost: | Associated | Wetland ID(s): | al the second second |
| 26-060-2031 | 6-060-A03 | 12 | 56.2 | WSW | up 032 | 14. C. 194 |
| (check one) | Centerline | DRe-Route | □Access Road | Other: | | |
| Physical Attributes | | | | | | |
| Stream Classification: (check one) | Ephemeral | | Perennial | | | |
| Waterbody Type: (check one) | Stream | Ditch | Canal | | | |
| OHWM Width: 6_ft. | HWM Indicator: neck all that apply) | Clear on bank | line 🛛 🖾 Śhelvin | g 🗆 Wrested vegetation | Scouri | ng ⊟Water staining |
| Height: <u>1.5</u> ft. | □Bent, matted, vegetation | or missing ØWrac | k line ØLitter av debris | nd | ant ⊡Soil change | characteristic cha |
| Width of Waterbody - Top o Bank to Top of Bank: | Width of Wate to Toe of Slop | rbody - Toe of Slo e: | pe Width of Waterb Water Edge: | ody - Water Edge to | Depth of Wat (Approx.) | er: |
| _7ft. | _6_ | _ft. | N/A□ | <u>6</u> ft. | N/A□ | <u>/.</u> _ft. |
| Sinuosity: | Water velocity | <i>r</i> : | Bank height | | Bank slope | |
| (check one) | (Approx.) | 1 | Right | 3 # | Rig | ht: 50 degre |
| | | i ips | Left: | 4 | L | eft: 60 dam |
| Emeandering | N/A | | - | t. | | degit |
| Qualitative Attributes | | | | | | |
| Water Appearance: (check one) | rater Diclear | □Turbid □ | Sheen DSu on surface sc | rface ⊡Algal um mats | Other: | |
| Substrate: Bed | rock 🗆 Boulder | | avel 1.8and I | Silt/ clay Organ | ic Other: | Construction States |
| (check all that apply) % of Substrate: | %% | % _/D | <u>% 80 %</u> | 30 % | %% | |
| Width of Riparian Zone: | Vegetative Layer | s: | n I | | - | |
| <u> 50 ft</u> . N/A□ | (check all that apply) Avg. DBH of Don (approx.) | ninants: /2 | ees: [in | ⊻ Saplings/Shrubs: in. | NA | in. |
| Dominant Bank Vegetation Nyssa biflora, | (list): Acer Gelsenium | n sempervir | Taxodium ens, Lonicer | distichum zjaponica | , Ligust | rum sinen. |
| Aquatic Habitats (ex: submer | ged or emerged aquatic | vegetation, overhangi | ng banks/roots, leaf pac | ks, large submerged woo | od, riffles, deep po | ools): |
| pools, leafp | acks, large | submerged | wood, ove | rhanging ro | σrs, | |
| Aquatic Organisms Observ Benthic n | ad (list): | tebrates | | | | |
| T&E Species Observed (list) | None | | harry a general second | | | an an an an Anna an Anna Anna an Anna an Anna an Anna an Anna Anna an Anna an Anna an Anna an Anna an Anna Anna Anna Anna Anna Anna Anna |
| Disturbances (ex: livestock ac Fill in flood | cess, manure in waterb | ody, waste discharge | pipes): Floodplain | | | |
| Tributary is: (check one) | Natural | Artificial, mar | -made 🗆 Manip | ulated | | |
| Stream Quality *: (check one) | High | Moderate | | | | |
| | i ngu | | | A DECEMBER OF A | | |
55up 019 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) = 55WP020 400 Little Creek culvert

Waterbody ID:

Environmental Field Surveys Waterbody Photo Page



Waterbody data point ssup019 facing northeast upstream.



Waterbody data point ssup019 facing southwest downstream.

Environmental Field Surveys Waterbody Photo Page



Waterbody data point ssup019 facing northwest across bank.

Linear Waterbody Data Sheet

(

| Survey Description | | | | | |
|--|-------------------------------|--|--------------------------|-----------------------------------|-----------------------------|
| Project Name: Waterbody Name: | | | - 1 | Waterbody ID: | Date: |
| ACF | 41 | I-to Cohor | on Creek | ssupors | 1/6//6 |
| State: Cou | inty/Parish: | Company: | Cr | ew Member Initials: | Photos: |
| VA | Suttolk | ES | I | MKS / NWM | NW,S,E |
| Tract Number(s): | a piero ante a contra a | Nearest Mile | epost: | Associated Wetland | ID(s): |
| 26-060-1 | 1031 | and a straight of the straight | 56.3 | wsupo | 33 |
| Survey Type: (check one) | Centerline | Re-Route | □Access Road | □Other: | the constant west |
| Physical Attributes | | | | | |
| Stream Classification: | | ./ | | | |
| (check one) | | Mintermittent | | | |
| Waterbody Type: (check one) | er DStream | Ditch C | anal 🗆 Other: | | |
| онwм с | HWM Indicator: | | | | |
| Width: 0.5 ft. | heck all that apply) | Clear lir on bank | te □Shelving | □Wrested L vegetation | Scouring Uvater staining |
| Height: <u>0.2_ft</u> . | Bent, matted, o vegetation | r missing □Wrack li | ne Litter and debris | □Abrupt plant community change | Soil characteristic change |
| Width of Waterbody - Top of | of Width of Water | body - Toe of Slope | Width of Waterbody | y - Water Edge to Depth | of Water: |
| Bank to Top of Bank: | to Toe of Slope | ə: | Water Edge: | (Approx. |) |
| 1.5 ft. | 1.0 | _ft. | 0.4 | ft. | <u> </u> |
| | | | N/A | N/A | |
| Sinuosity: | Water velocity: (Approx.) | | Bank height | Bank | Slope |
| EStraight | < | fre | Right: 3 | ft. | Right. 75 degrees |
| | | ips | Left: | | Left: 45 degrees |
| | N/A□ | | | n. | deglees |
| Qualitative Attributes | | | | | |
| Water Appearance: | | | | | |
| | water Declear | | surface scum | mats | |
| Substrate: | trock 🗆 Boulder | Cobble Grav | el Sand | Silt/ clay POrganic | Other: |
| (check all that apply) $\sqrt{20} \sqrt{20} \sqrt{10} \sqrt{10} \sqrt{10}$ | | | | | |
| / 01 Substrate. | _%% _ | 70 | _7070 | 7676 | /0 |
| Width of Riparian Zone: | Vegetative Layers | : | | - | 1. |
| 30 ft. | (check all that apply) | Inants: | | Saplings/Shrubs: | Herbs |
| | (approx.) | | _in | <u></u> in | <u>v 17</u> .n. |
| Dominant Bank Vegetation (list): | | | | | |
| Lonicera japo | snica, smile | ax rotundit | olia, Ile | x opaca, Arun | dinariagigantea |
| Aquatic Habitats (ex: submer | rged or emerged aquatic | vegetation, overhanging | banks/roots, leaf packs, | large submerged wood, riffles, | deep pools): |
| leaf pac | ks | 1. SV | | | |
| Aquatic Organisms Observ | ed (list): | | 11 | | |
| None | | | all and a loss | With Marshell | |
| T&E Species Observed (list |): | 1 1 | | | |
| None | | | | | |
| Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): | | | | | |
| Agriculture | runoff | Same in ca | Sec. 1 | | |
| Tributary is: (check one) | □ Natural | Artificial, man-m | nade 🕑 Manipula | ted | |
| Stream Quality * : | | | / | | |
| (check one) | 🗆 High | Moderate | Low | | |

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Little to no aquatic habitat Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) w5 1 P 037 ss upola STU. 20 55UP 02 200 ssup023 CULJER

Waterbody ID: Srup023 Environmental Field Surveys Waterbody Photo Page



Waterbody data point ssup023 facing northwest upstream.



Waterbody data point ssup023 facing south downstream.