

Cub Run and Bull Run Watershed Management Plan

Dulles International Airport

Final Plan Report Appendix C Structural Project Fact Sheets



Cub Run



Bull Run
West

prepared for

Fairfax County
Stormwater Planning
Division

Department of Public Works and Environmental Services

prepared by

Camp Dresser & McKee

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in association with: Institute for Environmental Negotiation at the University of Virginia Biohabitats, Inc.

Appendix C

Structural Project Fact Sheets

1.1 Introduction

This Appendix C provides fact sheets for each Cub Run and Bull Run structural project. A separate sheet is provided for each project that provides the project name, type, location, description and map. The fact sheets include a cost estimate prepared using guidelines developed by the Fairfax County Department of Public Works Department of Stormwater Planning as used in other watershed plans. Please refer to Sections 6 and 7 of the Cub Run Watershed Plan Report for descriptions of the procedures used to identify the project, the benefits that the project provides and details on project implementation.

1.2 Project Naming Convention

The structural projects are numbered using the following convention:

- The first two characters identify the watershed with CU indicating projects in the Cub Run and BR indicating projects in the Bull Run watershed
- The third character is 9 for all projects
- The fourth character indicates the project type:
 - 0 - Regional ponds
 - 1 - Dry pond wetland retrofit (projects CU9101 through CU9199)
 - 2 - Stream restoration
 - 3 - Buffer restoration
 - 6 - Road crossing improvement
 - 7 - Dry pond retrofit projects (Project CU9701 through CU9722)
 - 8 - LID retrofit projects
 - 9 - Other projects including dump site removal, neighborhoods without stormwater controls, upland drainage retrofit and riparian wetland studies
- The last two numbers indicate the project number. Projects are, in general, numbered sequentially starting at the lowest point in the watershed.

The following provides additional discussion on the project types.



Regional Ponds

The watershed plan includes constructing two ponds (C39 and C18) at a reduced size and scale from that originally proposed. The construction of these two ponds is included as projects CU9101 and CU9102. Stream restoration, buffer restoration, LID retrofit and dry pond retrofit projects associated with these two ponds or are alternative projects for other regional ponds are included as separate projects with separate cost accounting. This avoids double counting costs in the plan development.

Dry Pond Retrofit Projects

Fact sheets for 130 dry pond retrofit projects were prepared and are included in this appendix. This includes the nine projects in the Bull Run watershed numbered BR9101 through BR9109. The first 99 in the Cub Run watershed are included as projects CU9101 through CU9199. The remaining are numbered CU9701 through CU9722. Of these, 94 are selected as high priority projects and selected for implementation. The low priority projects are included for completeness and for potential future consideration.

Stream Restoration

Fact sheets for 22 stream restoration project numbered BR9201 and CU9201 through CU921 are included. Projects CU9202, CU9211 and CU9214 are split between two or three implementation groups and phases.

Buffer Restoration

Fact sheets for 43 buffer restoration project are presented including projects BR9301 through BR9304 in the Bull Run watershed and projects CU9301 through CU9339 in the Cub Run watershed.

Road Crossing Improvement

Fact sheets for sixteen road crossing improvements are presented as projects. These projects will not be implemented under the watershed plan and are included here for future reference. Costs are not provided for these projects. Project BR9601 through BR9603 are in the Bull Run west watershed and projects CU9601 through CU9613 are in the Cub Run watershed.

LID Retrofit at Public Facilities

Fact sheets for 26 projects to implement LID projects at public facilities are included. These include one project in the Bull Run watershed (BR9801) and projects CU9801 through CU9825 are in the Cub Run watershed.

Other Project Types

Other project types are numbered starting with BR99 and CU99.

This includes 11 dump site removal projects. These sites include locations of large debris identified through the stream inspections and through the public information



program. A cost of \$5,000 was assigned to remove the debris and place signs and/or fences to prevent future dumping.

Data sheets are provided for the headwater drainage systems and riparian wetland and stream restoration study.

1.3 Organization of Appendix C

The first part of this appendix provides tables that list the projects in various ways to ease finding projects and cross referencing the projects within implementation phase and project groupings:

- Table C-1 provides a listing of the structural projects in alphabetical/numerical order with the 5-year implementation phase and project group that includes the project.
- Table C-2 provides a listing of the structural projects grouped by implementation phase with the projects listed in alphabetical order within each phase.
- Table C-3 provides a listing of the structural projects grouped by implementation phase and implementation group with the projects within each implementation group listed in alphabetical order.

This is followed by the fact sheets for the individual structural projects provided in alphabetical order. This starts with the structural projects in the Bull Run watershed followed by those in the Cub Run watershed. Divider sheets are provided to identify breaks between the various project types.



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Table C-1
Structural Projects with Implementation Phase and Project Group

Structural Project	Project Type	Description	Phase	Group
BR9101	Dry Pond Retrofit	Hovingham Court	-	-
BR9102	Dry Pond Retrofit	Old Centreville Road and Compton Road	C	LC 3
BR9103	Dry Pond Retrofit	Compton Road & Confederate Ridge Lane Pond C49	-	-
BR9104	Dry Pond Retrofit	Flamborough Rd near Jenny Leigh Court	C	LC 3
BR9105	Dry Pond Retrofit	Cedar Loch Court	C	LC 3
BR9106	Dry Pond Retrofit	Tracy Schar Lane	C	LC 3
BR9107	Dry Pond Retrofit	Wheat Mill Way and Grainery Road	C	LC 3
BR9108	Dry Pond Retrofit	Sharps Drive	C	LC 3
BR9109	Dry Pond Retrofit	Smiths Terrace near Beckford Way	-	-
BR9201	Stream Restoration	Below quarry	D	LC 7
BR9301	Buffer Restoration	Private Property	D	LC 8
BR9302	Buffer Restoration	Private Property	D	LC 8
BR9303	Buffer Restoration	Private Property	D	LC 8
BR9304	Buffer Restoration	Fairfax National Estates	D	LC 8
BR9601	Road Crossing Improvements	Bull Run Post Office Road at unnamed tributary (easternmost of three crossings)	-	-
BR9602	Road Crossing Improvements	Bull Run Post Office Road at unnamed tributary (middle of three crossings)	-	-
BR9603	Road Crossing Improvements	Bull Run Post Office Road at unnamed tributary (westernmost of three crossings)	-	-
BR9801	LID at Public Facilities	Centreville Elementary School	C	LC 3
BR9901	Dump Site Removal	Both banks instream, Unnamed Bull Run tributary	A	Dumpsite
BR9902	Dump Site Removal	Left bank flood plain, Bull Run tributary	A	Dumpsite
CU9001	Regional Pond	Regional Pond C39 - Foxfield Lane within the Foxfield Community	A	FB 2
CU9002	Regional Pond	Regional Pond C18 - Cain Branch between Route 28 and Centreville Road	A	UC 1
CU9101	Dry Pond Retrofit	Bronze Post Road near Compton Road	-	-
CU9102	Dry Pond Retrofit	Hickory Post Court	-	-
CU9103	Dry Pond Retrofit	Between Outpost Court and I-66 (C04)	C	LC 5
CU9104	Dry Pond Retrofit	James Harris Way	E	BR 12
CU9105	Dry Pond Retrofit	Field Encampment Road and Field Flower Trail	E	BR 11



Table C-1
(continued)
Structural Projects with Implementation Phase and Project Group

Structural Project	Project Type	Description	Phase	Group
CU9106	Dry Pond Retrofit	Industrial Park at Route 29 and I-66 Interchange	E	BR 12
CU9107	Dry Pond Retrofit	Centrewood Drive and Machen Road	E	BR 11
CU9108	Dry Pond Retrofit	Federation Drive at Winding Ridge Lane	-	-
CU9109	Dry Pond Retrofit	Hoskins Hollow Circle	E	BR 11
CU9110	Dry Pond Retrofit	Old Centreville Road and Franklin Fox Drive	-	-
CU9111	Dry Pond Retrofit	Old Centreville Road and Sunset Ridge Road	E	BR 11
CU9112	Dry Pond Retrofit	Stonepath Court	E	BR 10
CU9113	Dry Pond Retrofit	Havner House Way near I-66, Route 29 Intersection	E	BR 10
CU9114	Dry Pond Retrofit	Brookmoor Lane and Woodgate Manor Circle	-	-
CU9115	Dry Pond Retrofit	Truro Parish Court	E	BR 10
CU9116	Dry Pond Retrofit	Olde Kent Road	-	-
CU9117	Dry Pond Retrofit	Between Grisby House Court and Black Horse Court	-	-
CU9118	Dry Pond Retrofit	Battery Ridge Lane	-	-
CU9119	Dry Pond Retrofit	Rocky Run Drive and Awbrey Patent Drive	E	BR 10
CU9120	Dry Pond Retrofit	Village Center Drive	-	-
CU9121	Dry Pond Retrofit	Braddock Road and Village Center Drive	E	BR 9
CU9122	Dry Pond Retrofit	Virginia Chase Drive	E	BR 10
CU9123	Dry Pond Retrofit	Filly Court	E	BR 9
CU9124	Dry Pond Retrofit	Route 28 ramp to I-66, Pickwick Road	D	BR 7
CU9125	Dry Pond Retrofit	Melton Place and Pickwick Road	D	BR 7
CU9126	Dry Pond Retrofit	Pickwick Road near Wharton Lane and Newhall Court	-	-
CU9127	Dry Pond Retrofit	Cabells Mill Drive and Ashcomb Court	D	BR 6
CU9128	Dry Pond Retrofit	Rushbrook Drive and Nanticoke Drive	D	BR 6
CU9129	Dry Pond Retrofit	High Grove Hills Lane	-	-
CU9130	Dry Pond Retrofit	Fernbrook Court	-	-
CU9131	Dry Pond Retrofit	Doyle Lane & Selby Bay Court. Regional Pond C30	-	-
CU9132	Dry Pond Retrofit	Poplar Tree Park, Melville Lane and Marble Rock Drive	C	BR 5



Table C-1
(continued)
Structural Projects with Implementation Phase and Project Group

Structural Project	Project Type	Description	Phase	Group
CU9133	Dry Pond Retrofit	Sutton Oaks Drive near Sutton Woods Court	-	-
CU9134	Dry Pond Retrofit	Point Pleasant Drive and Hazelnut Court	C	FB 7
CU9135	Dry Pond Retrofit	Point Pleasant Drive and Hazelnut Court	-	-
CU9136	Dry Pond Retrofit	Britwell Place and Maureen Lane	A	BR 1
CU9137	Dry Pond Retrofit	Near King of Kings Lutheran Church, Kings Way	-	-
CU9138	Dry Pond Retrofit	Tallow Tree Place	A	BR 1
CU9139	Dry Pond Retrofit	Trumbo Court and Monument Drive	B	BR 4
CU9140	Dry Pond Retrofit	Elm Forest Way and Lincoln Lake Way	-	-
CU9141	Dry Pond Retrofit	Timber Oak Trail and Hidden Glade Drive	-	-
CU9142	Dry Pond Retrofit	Fair Ridge Park, Meadow Field Drive	B	BR 3
CU9143	Dry Pond Retrofit	Fair Ridge Park, Rt. 50 and Fair Ridge Drive	B	BR 3
CU9144	Dry Pond Retrofit	Rt. 50 and Fair Ridge Drive, 50 West Corporate Center	B	BR 3
CU9145	Dry Pond Retrofit	Fair Ridge Drive, Fairleaf Court	B	BR 2
CU9146	Dry Pond Retrofit	Sweet Leaf Terrace and Fairleaf Court	B	BR 2
CU9147	Dry Pond Retrofit	Rydell Road	E	BR 12
CU9148	Dry Pond Retrofit	Prince Way	E	BR 12
CU9149	Dry Pond Retrofit	Stratton Major Court, Wetherburn Drive	-	-
CU9150	Dry Pond Retrofit	Lee Forest Path and Stillfield Place	B	LC 1
CU9151	Dry Pond Retrofit	Green Park Way, Basingstoke Loop (C22)	C	LC 4
CU9152	Dry Pond Retrofit	Grobie Pond Lane and Watermark Circle (C22)	C	LC 4
CU9153	Dry Pond Retrofit	Stone Range Drive	-	-
CU9154	Dry Pond Retrofit	Stone Crossing Court	E	BR 8
CU9155	Dry Pond Retrofit	Poplar Tree Road at Sully Park Drive	E	BR 8
CU9156	Dry Pond Retrofit	Lock Drive at Crenshaw Drive, Poplar Tree Road	E	BR 8
CU9157	Dry Pond Retrofit	Poplar Tree Road, Braywood Drive	E	BR 8
CU9158	Dry Pond Retrofit	Belle Plains Drive and Sequoia Farms Drive	E	BR 8
CU9159	Dry Pond Retrofit	Walney Road and Walney Park Drive	E	BR 8
CU9160	Dry Pond Retrofit	Oakengate Way	B	LC 1
CU9161	Dry Pond Retrofit	Hidden Canyon Road and Knoll View Place	B	LC 1



Table C-1
(continued)
Structural Projects with Implementation Phase and Project Group

Structural Project	Project Type	Description	Phase	Group
CU9162	Dry Pond Retrofit	Blueridge View Drive and Jordans Journey Drive	B	LC 1
CU9163	Dry Pond Retrofit	Eagle Tavern Lane	B	LC 1
CU9164	Dry Pond Retrofit	Snowhill Lane	B	LC 1
CU9165	Dry Pond Retrofit	Martins Hundred Drive	B	LC 1
CU9166	Dry Pond Retrofit	Ridings Manor Place	-	-
CU9167	Dry Pond Retrofit	Parkstone Drive, Va DMV	D	FB 11
CU9168	Dry Pond Retrofit	Harvest Court and Stoney Branch Court	-	-
CU9169	Dry Pond Retrofit	Westfields Blvd and Stonecroft Boulevard	D	FB 11
CU9170	Dry Pond Retrofit	Lee Road	D	FB 11
CU9171	Dry Pond Retrofit	Brookfield Corporate Center	D	FB 10
CU9172	Dry Pond Retrofit	Flatlick Branch Drive	C	FB 9
CU9173	Dry Pond Retrofit	Lewis Leigh Court and Walney Road	-	-
CU9174	Dry Pond Retrofit	Walney Road and Mariah Court	C	FB 9
CU9175	Dry Pond Retrofit	Penny Tree Place	C	FB 9
CU9176	Dry Pond Retrofit	Fillingame Drive Between Quitway Court and Lowry Drive	C	FB 8
CU9177	Dry Pond Retrofit	Smallwood Court	C	FB 8
CU9178	Dry Pond Retrofit	Fallen Oak Court	C	FB 8
CU9179	Dry Pond Retrofit	Hollowstone Court	-	-
CU9180	Dry Pond Retrofit	Stream Valley Drive	C	FB 8
CU9181	Dry Pond Retrofit	Rocky Run Middle School North	-	-
CU9182	Dry Pond Retrofit	Currey Lane, Chantilly Library	C	FB 7
CU9183	Dry Pond Retrofit	Leafcrest Lane	-	-
CU9184	Dry Pond Retrofit	Flatlick downstream from Route 50	B	FB 6
CU9185	Dry Pond Retrofit	Beech Down Drive	A	FB 3
CU9186	Dry Pond Retrofit	Beech Down Drive and Bellerose Drive	A	FB 3
CU9187	Dry Pond Retrofit	Hollinger Avenue and Lees Corner Road	A	FB 4
CU9188	Dry Pond Retrofit	Kernstown Court (C43)	A	FB 4
CU9189	Dry Pond Retrofit	Lees Corner Road and King Charles Drive	-	-
CU9190	Dry Pond Retrofit	Stringfellow Road near Brandy Station Road	-	-
CU9191	Dry Pond Retrofit	Spring Pond Place and Kalmia Lane	-	-
CU9192	Dry Pond Retrofit	Alder Woods Drive	B	BR 2
CU9193	Dry Pond Retrofit	Mazewood Lane	A	FB 5
CU9194	Dry Pond Retrofit	Thompson Road and Oxon Road	A	FB 5
CU9195	Dry Pond Retrofit	Fairfax County Parkway and Tuckaway Drive	A	FB 1



Table C-1
(continued)
Structural Projects with Implementation Phase and Project Group

Structural Project	Project Type	Description	Phase	Group
CU9196	Dry Pond Retrofit	Fern Hollow Place	-	-
CU9197	Dry Pond Retrofit	Ashvale Drive and Franklin Manor Court	-	-
CU9198	Dry Pond Retrofit	Applegrove Lane and Fern Hollow Place	A	FB 1
CU9199	Dry Pond Retrofit	Willow Glen Court	-	-
CU9201	Stream Restoration	Within Bull Run Regional Park south of I-66 to Bull Run Confluence	E	LC 10
CU9202	Stream Restoration	Between Compton Road and Route 66	D	LC 6
			E	LC 10
CU9203	Stream Restoration	Upstream from Cub Run Confluence and downstream from Route 29.	E	BR 12
CU9204	Stream Restoration	The Meadows and Centre Ridge - upstream from I-66	E	BR 11
CU9205	Stream Restoration	Below Awbrey Patent Drive and upstream from Route 29.	E	BR 10
CU9206	Stream Restoration	Below Braddock Road	E	BR 10
CU9207	Stream Restoration	Between Route 28 and Braddock Road	E	BR 9
CU9208	Stream Restoration	Fair Lakes	B	BR 4
CU9209	Stream Restoration	Oaks Chase near Timber Oaks Trail	B	BR 3
CU9210	Stream Restoration	Upstream and downstream from Ox Hill Road. Upstream from Route 50.	B	BR 2
CU9211	Stream Restoration	Middle Cub Run main stem and selected tributaries - from Flatlick Branch to just below Route 29.	B	LC 1
			C	LC 4
			E	LC 9
CU9212	Stream Restoration	Upstream from Sully Park Drive	E	BR 8
CU9213	Stream Restoration	Upstream and downstream from Stonecroft Boulevard	D	FB 10
CU9214	Stream Restoration	Between Route 50 and Route 28	B	FB 6
			D	FB 10
CU9215	Stream Restoration	Upstream from Alder Woods Drive Fair Oaks Estates	B	BR 2



Table C-1
(continued)
Structural Projects with Implementation Phase and Project Group

Structural Project	Project Type	Description	Phase	Group
CU9216	Stream Restoration	Franklin Glen	A	FB 2
CU9217	Stream Restoration	Downstream from Oxon Road to existing lake.	A	FB 1
CU9218	Stream Restoration	Cub Run including lower reaches of two tributaries near Pleasant Valley.	A	UC 2
CU9219	Stream Restoration	Upstream from Route 50. Upstream and downstream from Avion Parkway.	D	UC 5
CU9220	Stream Restoration	Upstream from Route 28 and downstream from Centreville Road	A	UC 1
CU9221	Stream Restoration	Upstream from Stonecroft Boulevard.	D	UC 5
CU9301	Buffer Restoration	FCPA Parkland downstream from Big Rocky Run near Route 66 and Gate Post Estates	E	BR 12
CU9302	Buffer Restoration	Partially in FCPA parkland upstream from I-66. Centre Ridge	C	LC 5
CU9303	Buffer Restoration	FCPA parkland and VDOT ROW I-66 / Route 28 interchange	E	BR 10
CU9304	Buffer Restoration	FCPA parkland upstream and downstream from Awbrey Patent Drive	E	BR 10
CU9305	Buffer Restoration	FCPA parkland downstream from Braddock Road	E	BR 10
CU9306	Buffer Restoration	Private property upstream from Braddock Road crossing Cedar Break Drive within Sequoia Farms	E	BR 9
CU9307	Buffer Restoration	Partially in FCPA parkland Ellicott Court downstream from Northbourne Drive	D	BR 6
CU9308	Buffer Restoration	Partially in FCPA parkland downstream from Veronica Road - upstream from regional pond C30	D	BR 6
CU9309	Buffer Restoration	FCPA parkland upstream from Northbourne Drive and downstream from Stringfellow Road	C	BR 5
CU9310	Buffer Restoration	FCPA parkland downstream from Stringfellow Road	C	BR 5
CU9311	Buffer Restoration	FCPA parkland downstream from Point Pleasant Drive	C	FB 7
CU9312	Buffer Restoration	FCPA parkland downstream from Stringfellow Road and Point Pleasant Drive	C	FB 7



Table C-1
(continued)
Structural Projects with Implementation Phase and Project Group

Structural Project	Project Type	Description	Phase	Group
CU9313	Buffer Restoration	FCPA parkland upstream from Stringfellow Road near Greenbriar	A	BR 1
CU9314	Buffer Restoration	FCPA parkland downstream from Melville Lane	A	BR 1
CU9315	Buffer Restoration	FCPA parkland downstream from Middle Ridge Drive	A	BR 1
CU9316	Buffer Restoration	Partially in FCPA parkland in Virginia Run - Downstream from Pleasant Valley Rd.	B	LC 1
CU9317	Buffer Restoration	FCPA parkland upstream from Braddock Road	D	FB 10
CU9318	Buffer Restoration	FCPA Parkland at Lees Corner Road	B	FB 6
CU9319	Buffer Restoration	FCPA Parkland downstream from Stringfellow Road	C	FB 8
CU9320	Buffer Restoration	Private property upstream from Route 50 and downstream from Lees Corner Road	A	FB 3
CU9321	Buffer Restoration	FCPA parkland downstream from Stringfellow Road near Brandy Station Road.	A	FB 4
CU9322	Buffer Restoration	Downstream from Stringfellow Road	A	FB 4
CU9323	Buffer Restoration	Private property downstream from Fairfax County Parkway near Freehill Lane	B	BR 2
CU9324	Buffer Restoration	Private property upstream from Lees Corner Road	A	FB 4
CU9325	Buffer Restoration	Private property downstream from Fairfax County Parkway	A	FB 5
CU9326	Buffer Restoration	Private property adjacent to Fairfax County Parkway upstream from Tuckaway Drive	A	FB 1
CU9327	Buffer Restoration	Private property upstream from Fairfax County Parkway and downstream from Thompson Road	A	FB 1
CU9328	Buffer Restoration	Private property upstream from Thompson Road	A	FB 1
CU9329	Buffer Restoration	Private property within Franklin Manor near Rose Grove Drive	A	FB 1
CU9330	Buffer Restoration	FCPA parkland near Pleasant Valley Road north of Ellick Run	C	UC 4
CU9331	Buffer Restoration	FCPA parkland adjacent to Pleasant Valley Road south of Ellick Run	C	UC 4



Table C-1
(continued)
Structural Projects with Implementation Phase and Project Group

Structural Project	Project Type	Description	Phase	Group
CU9332	Buffer Restoration	FCPA parkland at Old Lee Road	B	UC 3
CU9333	Buffer Restoration	FCPA parkland upstream from Cub Run and downstream from Stonecroft Boulevard	A	UC 2
CU9334	Buffer Restoration	Private property downstream from Centreville Road	A	UC 1
CU9335	Buffer Restoration	Private property upstream from Centreville Road and downstream from Lees Corner Road	A	UC 1
CU9336	Buffer Restoration	Private property upstream from Lees Corner Road	A	UC 1
CU9337	Buffer Restoration	Pleasant Valley neighborhood - Half of project is in FCPA parkland	A	UC 2
CU9338	Buffer Restoration	Private property at Stonecroft Boulevard	D	UC 5
CU9339	Buffer Restoration	Private property upstream from Stonecroft Boulevard	D	UC 5
CU9601	Road Crossing Improvements	Compton Road at unnamed tributary near UOSA advanced wastewater treatment plant	-	-
CU9602	Road Crossing Improvements	Compton Road at unnamed tributary near Confederate Ridge Lane	-	-
CU9603	Road Crossing Improvements	Compton Road at unnamed tributary east of Bull Run Post Office Road	-	-
CU9604	Road Crossing Improvements	Compton Road at unnamed tributary west of Route 66	-	-
CU9605	Road Crossing Improvements	Awbrey Patent Drive at Big Rocky Run	-	-
CU9606	Road Crossing Improvements	Heron Drive at unnamed tributary between Cabells Mill Drive and Walney Road	-	-
CU9607	Road Crossing Improvements	Big Rocky Run at Stringfellow Road	-	-
CU9608	Road Crossing Improvements	Dorforth Drive at unnamed tributary - (aerial photography suggests that this crossing has been abandoned.	-	-
CU9609	Road Crossing Improvements	Flatlick Branch at Walney Road	-	-
CU9610	Road Crossing Improvements	Birch Drive at unnamed tributary to Flatlick Branch	-	-



Table C-1
(continued)
Structural Projects with Implementation Phase and Project Group

Structural Project	Project Type	Description	Phase	Group
CU9611	Road Crossing Improvements	Cub Run at Braddock Road and Old Lee Road	-	-
CU9612	Road Crossing Improvements	Pleasant Valley Road at unnamed tributary near Blue Spring Drive	-	-
CU9613	Road Crossing Improvements	Cain Branch at Lees Corner Road	-	-
CU9701	Dry Pond Retrofit	Rose Grove Drive	A	FB 1
CU9702	Dry Pond Retrofit	Autumn Crest Drive and Pond Mist Way	A	FB 1
CU9703	Dry Pond Retrofit	Oxon Road and Oakton Chase Way	A	FB 1
CU9704	Dry Pond Retrofit	Camberley Forest Drive and Wilbury Road	A	FB 1
CU9705	Dry Pond Retrofit	Kentwell Circle	C	UC 4
CU9706	Dry Pond Retrofit	Flint Lee Business Center, Stonecroft Rd.	D	UC 5
CU9707	Dry Pond Retrofit	Lee Road and Willard Road	D	UC 5
CU9708	Dry Pond Retrofit	Walney Road and Vernon Street	-	-
CU9709	Dry Pond Retrofit	Sully Plaza, Rt 50 and Centreville Road	A	FB 3
CU9710	Dry Pond Retrofit	Westfax Industrial Park, Rt 50 and Westfax Dr	D	UC 5
CU9711	Dry Pond Retrofit	Franklin Middle School, Centreville Road	A	UC 1
CU9712	Dry Pond Retrofit	Centreville Road and Armfield Farm Drive	A	UC 1
CU9713	Dry Pond Retrofit	Lees Corner Road and Old Dairy Road	A	UC 1
CU9714	Dry Pond Retrofit	Franklin Farm Road and Hidden Meadow Circle	A	UC 1
CU9715	Dry Pond Retrofit	Pleasant Valley Rd, Silas Hutchinson Dr	A	UC 2
CU9716	Dry Pond Retrofit	Technology Court and Lafayette Center Dr	A	UC 2
CU9717	Dry Pond Retrofit	Driving Training Center, Stonecroft Blvd	D	UC 5
CU9718	Dry Pond Retrofit	Avion Parkway and Virginia Mallory Drive	D	UC 5
CU9719	Dry Pond Retrofit	Lafayette Business Center, Lafayette Center Drive	A	UC 2
CU9720	Dry Pond Retrofit	Stonecroft Blvd. and Thompson Road	D	UC 5
CU9721	Dry Pond Retrofit	Dulles International Center, Eds Drive	A	UC 1
CU9722	Dry Pond Retrofit	Dulles Gateway Center Renaissance Park	A	UC 1



Table C-1
(continued)
Structural Projects with Implementation Phase and Project Group

Structural Project	Project Type	Description	Phase	Group
CU9801	LID at Public Facilities	Bull Run Elementary School	D	LC 6
CU9802	LID at Public Facilities	Centre Ridge Elementary School	C	LC 5
CU9803	LID at Public Facilities	London Towne Elementary School	E	BR 10
CU9804	LID at Public Facilities	Centreville Library	E	BR 11
CU9805	LID at Public Facilities	Ellanor C. Lawrence Playing Field Parking Lot	E	BR 9
CU9806	LID at Public Facilities	Cabells Mill Parking Area	D	BR 6
CU9807	LID at Public Facilities	Stringfellow Road Commuter Lot	D	BR 6
CU9808	LID at Public Facilities	Poplar Tree Park Playing Fields Parking Lot	C	BR 5
CU9809	LID at Public Facilities	Poplar Tree Elementary School	C	BR 5
CU9810	LID at Public Facilities	Rocky Run Middle School	C	FB 7
CU9811	LID at Public Facilities	Greenbriar East Elementary School	A	BR 1
CU9812	LID at Public Facilities	Stone Middle School	B	LC 2
CU9813	LID at Public Facilities	Deer Park Elementary School	B	LC 2
CU9814	LID at Public Facilities	Virginia Run Elementary School	B	LC 1
CU9815	LID at Public Facilities	Cub Run Elementary School	B	LC 2
CU9816	LID at Public Facilities	Sully District Supervisor's Office	D	FB 11
CU9817	LID at Public Facilities	Chantilly Library	C	FB 7
CU9818	LID at Public Facilities	Chantilly High School	C	FB 7
CU9819	LID at Public Facilities	Greenbriar West Elementary School	C	FB 7
CU9820	LID at Public Facilities	Brookfield Elementary School	B	FB 6



Table C-1
(continued)
Structural Projects with Implementation Phase and Project Group

Structural Project	Project Type	Description	Phase	Group
CU9821	LID at Public Facilities	Lees Corner Elementary School	A	FB 4
CU9822	LID at Public Facilities	Navy Elementary School	B	BR 2
CU9823	LID at Public Facilities	Westfield High School	B	UC 3
CU9824	LID at Public Facilities	Cub Run Recreation Center	B	UC 3
CU9825	LID at Public Facilities	Franklin Middle School	A	UC 1
CU9901	Dump Site Removal	Left bank flood plain, Lower Cub Run, Bull Run Regional Park.	A	Dumpsite
CU9902	Dump Site Removal	Left Bank flood plain, Lower Cub Run, Bull Run Regional Park	A	Dumpsite
CU9903	Dump Site Removal	Left Bank instream, Tributary to Lower Cub Run	A	Dumpsite
CU9904	Dump Site Removal	Left Bank flood plain, Big Rocky Run	A	Dumpsite
CU9905	Dump Site Removal	Left bank flood plain, Big Rocky Run downstream from Route 50	A	Dumpsite
CU9906	Dump Site Removal	Both banks flood plain, Flatlick Branch at Walney Road	A	Dumpsite
CU9907	Dump Site Removal	Both banks instream, Frog Branch near Stringfellow Road	A	Dumpsite
CU9908	Dump Site Removal	Both banks instream. Elklick Run within FCPA Parkland	A	Dumpsite
CU9909	Dump Site Removal	Left Bank, Cub Run and Schneider Branch off Stonecroft Boulevard.	A	Dumpsite
CU9910	Neighborhoods Without Stormwater Controls	Country Club Manor	B	LC 2
CU9911	Neighborhoods Without Stormwater Controls	Greenbriar and Birch Pond	A	BR 1
CU9912	Neighborhoods Without Stormwater Controls	Brookfield	B	FB 6



Table C-1
(continued)
Structural Projects with Implementation Phase and Project Group

Structural Project	Project Type	Description	Phase	Group
CU9913	Neighborhoods Without Stormwater Controls	Pleasant Valley	A	UC 2
CU9914	Headwater Drainage Systems	Headwater areas of watershed	A	Phase A
CU9914	Headwater Drainage Systems	Headwater areas of watershed	B	Phase B
CU9914	Headwater Drainage Systems	Headwater areas of watershed	C	Phase C
CU9914	Headwater Drainage Systems	Headwater areas of watershed	D	Phase D
CU9914	Headwater Drainage Systems	Headwater areas of watershed	E	Phase E
CU9915	Riparian Wetland and Stream Study	Perform study to identify riparian wetland and stream restoration areas	A	Phase A



Table C-2
Summary of Projects Within Each Implementation Phase

Phase	Structural Project	Project Type	Description
A	BR9901	Dump Site Removal	Both banks instream, Unnamed Bull Run tributary
A	BR9902	Dump Site Removal	Left bank flood plain, Bull Run tributary
A	CU9001	Regional Pond	Regional Pond C39 - Foxfield Lane within the Foxfield Community
A	CU9002	Regional Pond	Regional Pond C18 - Cain Branch between Route 28 and Centreville Road
A	CU9136	Dry Pond Retrofit	Britwell Place and Maureen Lane
A	CU9138	Dry Pond Retrofit	Tallow Tree Place
A	CU9185	Dry Pond Retrofit	Beech Down Drive
A	CU9186	Dry Pond Retrofit	Beech Down Drive and Bellerose Drive
A	CU9187	Dry Pond Retrofit	Hollinger Avenue and Lees Corner Road
A	CU9188	Dry Pond Retrofit	Kernstown Court (C43)
A	CU9193	Dry Pond Retrofit	Mazewood Lane
A	CU9194	Dry Pond Retrofit	Thompson Road and Oxon Road
A	CU9195	Dry Pond Retrofit	Fairfax County Parkway and Tuckaway Drive
A	CU9198	Dry Pond Retrofit	Applegrove Lane and Fern Hollow Place
A	CU9216	Stream Restoration	Franklin Glen
A	CU9217	Stream Restoration	Downstream from Oxon Road to existing lake.
A	CU9218	Stream Restoration	Cub Run including lower reaches of two tributaries near Pleasant Valley.
A	CU9220	Stream Restoration	Upstream from Route 28 and downstream from Centreville Road.
A	CU9313	Buffer Restoration	FCPA parkland upstream from Stringfellow Road near Greenbriar
A	CU9314	Buffer Restoration	FCPA parkland downstream from Melville Lane
A	CU9315	Buffer Restoration	FCPA parkland downstream from Middle Ridge Drive
A	CU9320	Buffer Restoration	Private property upstream from Route 50 and downstream from Lees Corner Road
A	CU9321	Buffer Restoration	FCPA parkland downstream from Stringfellow Road near Brandy Station Road.
A	CU9322	Buffer Restoration	Downstream from Stringfellow Road
A	CU9324	Buffer Restoration	Private property upstream from Lees Corner Road
A	CU9325	Buffer Restoration	Private property downstream from Fairfax County Parkway
A	CU9326	Buffer Restoration	Private property adjacent to Fairfax County Parkway upstream from Tuckaway Drive
A	CU9327	Buffer Restoration	Private property upstream from Fairfax County Parkway and downstream from Thompson Road
A	CU9328	Buffer Restoration	Private property upstream from Thompson Road



Table C-2
(continued)
Summary of Projects Within Each Implementation Phase

Phase	Structural Project	Project Type	Description
A	CU9329	Buffer Restoration	Private property within Franklin Manor near Rose Grove Drive
A	CU9333	Buffer Restoration	FCPA parkland upstream from Cub Run and downstream from Stonecroft Boulevard
A	CU9334	Buffer Restoration	Private property downstream from Centreville Road
A	CU9335	Buffer Restoration	Private property upstream from Centreville Road and downstream from Lees Corner Road
A	CU9336	Buffer Restoration	Private property upstream from Lees Corner Road
A	CU9337	Buffer Restoration	Pleasant Valley neighborhood - Half of project is in FCPA parkland
A	CU9701	Dry Pond Retrofit	Rose Grove Drive
A	CU9702	Dry Pond Retrofit	Autumn Crest Drive and Pond Mist Way
A	CU9703	Dry Pond Retrofit	Oxon Road and Oakton Chase Way
A	CU9704	Dry Pond Retrofit	Camberley Forest Drive and Wilbury Road
A	CU9709	Dry Pond Retrofit	Sully Plaza, Rt 50 and Centreville Road
A	CU9711	Dry Pond Retrofit	Franklin Middle School, Centreville Road
A	CU9712	Dry Pond Retrofit	Centreville Road and Armfield Farm Drive
A	CU9713	Dry Pond Retrofit	Lees Corner Road and Old Dairy Road
A	CU9714	Dry Pond Retrofit	Franklin Farm Road and Hidden Meadow Circle
A	CU9715	Dry Pond Retrofit	Pleasant Valley Rd, Silas Hutchinson Dr
A	CU9716	Dry Pond Retrofit	Technology Court and Lafayette Center Dr
A	CU9719	Dry Pond Retrofit	Lafayette Business Center, Lafayette Center Drive
A	CU9721	Dry Pond Retrofit	Dulles International Center, Eds Drive
A	CU9722	Dry Pond Retrofit	Dulles Gateway Center Renaissance Park
A	CU9811	LID at Public Facilities	Greenbriar East Elementary School
A	CU9821	LID at Public Facilities	Lees Corner Elementary School
A	CU9825	LID at Public Facilities	Franklin Middle School
A	CU9901	Dump Site Removal	Left bank flood plain, Lower Cub Run, Bull Run Regional Park.
A	CU9902	Dump Site Removal	Left Bank flood plain, Lower Cub Run, Bull Run Regional Park
A	CU9903	Dump Site Removal	Left Bank instream, Tributary to Lower Cub Run
A	CU9904	Dump Site Removal	Left Bank flood plain, Big Rocky Run
A	CU9905	Dump Site Removal	Left bank flood plain, Big Rocky Run downstream from Route 50
A	CU9906	Dump Site Removal	Both banks flood plain, Flatlick Branch at Walney Road



Table C-2
(continued)
Summary of Projects Within Each Implementation Phase

Phase	Structural Project	Project Type	Description
A	CU9907	Dump Site Removal	Both banks instream, Frog Branch near Stringfellow Road
A	CU9908	Dump Site Removal	Both banks instream. Elklick Run within FCPA Parkland
A	CU9909	Dump Site Removal	Left Bank, Cub Run and Schneider Branch off Stonecroft Boulevard.
A	CU9911	Neighborhoods Without Stormwater Controls	Greenbriar and Birch Pond
A	CU9913	Neighborhoods Without Stormwater Controls	Pleasant Valley
A	CU9914	Headwater Drainage Systems	Headwater areas of watershed
A	CU9915	Riparian Wetland and Stream Study	Perform study to identify riparian wetland and stream restoration areas
B	CU9139	Dry Pond Retrofit	Trumbo Court and Monument Drive
B	CU9142	Dry Pond Retrofit	Fair Ridge Park, Meadow Field Drive
B	CU9143	Dry Pond Retrofit	Fair Ridge Park, Rt. 50 and Fair Ridge Drive
B	CU9144	Dry Pond Retrofit	Rt. 50 and Fair Ridge Drive, 50 West Corporate Center
B	CU9145	Dry Pond Retrofit	Fair Ridge Drive, Fairleaf Court
B	CU9146	Dry Pond Retrofit	Sweet Leaf Terrace and Fairleaf Court
B	CU9150	Dry Pond Retrofit	Lee Forest Path and Stillfield Place
B	CU9160	Dry Pond Retrofit	Oakengate Way
B	CU9161	Dry Pond Retrofit	Hidden Canyon Road and Knoll View Place
B	CU9162	Dry Pond Retrofit	Blueridge View Drive and Jordans Journey Drive
B	CU9163	Dry Pond Retrofit	Eagle Tavern Lane
B	CU9164	Dry Pond Retrofit	Snowhill Lane
B	CU9165	Dry Pond Retrofit	Martins Hundred Drive
B	CU9184	Dry Pond Retrofit	Flatlick downstream from Route 50
B	CU9192	Dry Pond Retrofit	Alder Woods Drive
B	CU9208	Stream Restoration	Fair Lakes
B	CU9209	Stream Restoration	Oaks Chase near Timber Oaks Trail
B	CU9210	Stream Restoration	Upstream and downstream from Ox Hill Road. Upstream from Route 50.
B	CU9211	Stream Restoration	Middle Cub Run main stem and selected tributaries - from Flatlick Branch to just below Route 29. Part 1.



Table C-2
(continued)
Summary of Projects Within Each Implementation Phase

Phase	Structural Project	Project Type	Description
B	CU9214	Stream Restoration	Between Route 50 and Route 28. Part 1.
B	CU9215	Stream Restoration	Upstream from Alder Woods Drive Fair Oaks Estates
B	CU9316	Buffer Restoration	Partially in FCPA parkland in Virginia Run - Downstream from Pleasant Valley Rd.
B	CU9318	Buffer Restoration	FCPA Parkland at Lees Corner Road
B	CU9323	Buffer Restoration	Private property downstream from Fairfax County Parkway near Freehill Lane
B	CU9332	Buffer Restoration	FCPA parkland at Old Lee Road
B	CU9812	LID at Public Facilities	Stone Middle School
B	CU9813	LID at Public Facilities	Deer Park Elementary School
B	CU9814	LID at Public Facilities	Virginia Run Elementary School
B	CU9815	LID at Public Facilities	Cub Run Elementary School
B	CU9820	LID at Public Facilities	Brookfield Elementary School
B	CU9822	LID at Public Facilities	Navy Elementary School
B	CU9823	LID at Public Facilities	Westfield High School
B	CU9824	LID at Public Facilities	Cub Run Recreation Center
B	CU9910	Neighborhoods Without Stormwater Controls	Country Club Manor
B	CU9912	Neighborhoods Without Stormwater Controls	Brookfield
B	CU9914	Headwater Drainage Systems	Headwater areas of watershed
C	BR9102	Dry Pond Retrofit	Old Centreville Road and Compton Road
C	BR9104	Dry Pond Retrofit	Flamborough Rd near Jenny Leigh Court
C	BR9105	Dry Pond Retrofit	Cedar Loch Court
C	BR9106	Dry Pond Retrofit	Tracy Schar Lane
C	BR9107	Dry Pond Retrofit	Wheat Mill Way and Grainery Road
C	BR9108	Dry Pond Retrofit	Sharps Drive



Table C-2
(continued)
Summary of Projects Within Each Implementation Phase

Phase	Structural Project	Project Type	Description
C	BR9801	LID at Public Facilities	Centreville Elementary School
C	CU9103	Dry Pond Retrofit	Between Outpost Court and I-66 (C04)
C	CU9132	Dry Pond Retrofit	Poplar Tree Park, Melville Ln and Marble Rock Drive
C	CU9134	Dry Pond Retrofit	Point Pleasant Drive and Hazelnut Court
C	CU9151	Dry Pond Retrofit	Green Park Way, Basingstoke Loop (C22)
C	CU9152	Dry Pond Retrofit	Grobie Pond Lane and Watermark Circle (C22)
C	CU9172	Dry Pond Retrofit	Flatlick Branch Drive
C	CU9174	Dry Pond Retrofit	Walney Road and Mariah Court
C	CU9175	Dry Pond Retrofit	Penny Tree Place
C	CU9176	Dry Pond Retrofit	Fillingame Drive Between Quitway Court and Lowry Drive
C	CU9177	Dry Pond Retrofit	Smallwood Court
C	CU9178	Dry Pond Retrofit	Fallen Oak Court
C	CU9180	Dry Pond Retrofit	Stream Valley Drive
C	CU9182	Dry Pond Retrofit	Currey Lane, Chantilly Library
C	CU9211	Stream Restoration	Middle Cub Run main stem and selected tributaries - from Flatlick Branch to just below Route 29. Part 2.
C	CU9302	Buffer Restoration	Partially in FCPA parkland upstream from I-66. Centre Ridge
C	CU9309	Buffer Restoration	FCPA parkland upstream from Northbourne Drive and downstream from Stringfellow Road
C	CU9310	Buffer Restoration	FCPA parkland downstream from Stringfellow Road
C	CU9311	Buffer Restoration	FCPA parkland downstream from Point Pleasant Drive
C	CU9312	Buffer Restoration	FCPA parkland downstream from Stringfellow Road and Point Pleasant Drive
C	CU9319	Buffer Restoration	FCPA Parkland downstream from Stringfellow Road
C	CU9330	Buffer Restoration	FCPA parkland near Pleasant Valley Road north of Elklick Run
C	CU9331	Buffer Restoration	FCPA parkland adjacent to Pleasant Valley Road south of Elklick Run
C	CU9705	Dry Pond Retrofit	Kentwell Circle
C	CU9802	LID at Public Facilities	Centre Ridge Elementary School
C	CU9808	LID at Public Facilities	Poplar Tree Park Playing Fields Parking Lot
C	CU9809	LID at Public Facilities	Poplar Tree Elementary School
C	CU9810	LID at Public Facilities	Rocky Run Middle School
C	CU9817	LID at Public Facilities	Chantilly Library



Table C-2
(continued)
Summary of Projects Within Each Implementation Phase

Phase	Structural Project	Project Type	Description
C	CU9818	LID at Public Facilities	Chantilly High School
C	CU9819	LID at Public Facilities	Greenbriar West Elementary School
C	CU9914	Headwater Drainage Systems	Headwater areas of watershed
D	BR9201	Stream Restoration	Below quarry
D	BR9301	Buffer Restoration	Private Property
D	BR9302	Buffer Restoration	Private Property
D	BR9303	Buffer Restoration	Private Property
D	BR9304	Buffer Restoration	Fairfax National Estates
D	CU9124	Dry Pond Retrofit	Route 28 ramp to I-66, Pickwick Road
D	CU9125	Dry Pond Retrofit	Melton Place and Pickwick Road
D	CU9127	Dry Pond Retrofit	Cabells Mill Drive and Ashcomb Court
D	CU9128	Dry Pond Retrofit	Rushbrook Drive and Nanticoke Drive
D	CU9167	Dry Pond Retrofit	Parkstone Drive, Va DMV
D	CU9169	Dry Pond Retrofit	Westfields Blvd and Stonecroft Boulevard
D	CU9170	Dry Pond Retrofit	Lee Road
D	CU9171	Dry Pond Retrofit	Brookfield Corporate Center
D	CU9202	Stream Restoration	Between Compton Road and Route 66. Part 1.
D	CU9213	Stream Restoration	Upstream and downstream from Stonecroft Boulevard
D	CU9214	Stream Restoration	Between Route 50 and Route 28. Part 2.
D	CU9219	Stream Restoration	Upstream from Route 50. Upstream and downstream from Avion Parkway.
D	CU9221	Stream Restoration	Upstream from Stonecroft Boulevard.
D	CU9307	Buffer Restoration	Partially in FCPA parkland Ellicott Court downstream from Northbourne Drive
D	CU9308	Buffer Restoration	Partially in FCPA parkland downstream from Veronica Road - upstream from regional pond C30
D	CU9317	Buffer Restoration	FCPA parkland upstream from Braddock Road
D	CU9338	Buffer Restoration	Private property at Stonecroft Boulevard
D	CU9339	Buffer Restoration	Private property upstream from Stonecroft Boulevard
D	CU9706	Dry Pond Retrofit	Flint Lee Business Center, Stonecroft Rd.
D	CU9707	Dry Pond Retrofit	Lee Road and Willard Road
D	CU9710	Dry Pond Retrofit	Westfax Industrial Park, Rt 50 and Westfax Dr
D	CU9717	Dry Pond Retrofit	Driving Training Center, Stonecroft Blvd
D	CU9718	Dry Pond Retrofit	Avion Parkway and Virginia Mallory Drive



Table C-2
(continued)
Summary of Projects Within Each Implementation Phase

Phase	Structural Project	Project Type	Description
D	CU9720	Dry Pond Retrofit	Stonecroft Blvd. and Thompson Road
D	CU9801	LID at Public Facilities	Bull Run Elementary School
D	CU9806	LID at Public Facilities	Cabells Mill Parking Area
D	CU9807	LID at Public Facilities	Stringfellow Road Commuter Lot
D	CU9816	LID at Public Facilities	Sully District Supervisor's Office
D	CU9914	Headwater Drainage Systems	Headwater areas of watershed
E	CU9104	Dry Pond Retrofit	James Harris Way
E	CU9105	Dry Pond Retrofit	Field Encampment Road and Field Flower Trail
E	CU9106	Dry Pond Retrofit	Industrial Park at Route 29 and I-66 Interchange
E	CU9107	Dry Pond Retrofit	Centrewood Drive and Machen Road
E	CU9109	Dry Pond Retrofit	Hoskins Hollow Circle
E	CU9111	Dry Pond Retrofit	Old Centreville Road and Sunset Ridge Road
E	CU9112	Dry Pond Retrofit	Stonepath Court
E	CU9113	Dry Pond Retrofit	Havner House Way near I-66, Route 29 Intersection
E	CU9115	Dry Pond Retrofit	Truro Parish Court
E	CU9119	Dry Pond Retrofit	Rocky Run Drive and Awbrey Patent Drive
E	CU9121	Dry Pond Retrofit	Braddock Road and Village Center Drive
E	CU9122	Dry Pond Retrofit	Virginia Chase Drive
E	CU9123	Dry Pond Retrofit	Filly Court
E	CU9147	Dry Pond Retrofit	Rydell Road
E	CU9148	Dry Pond Retrofit	Prince Way
E	CU9154	Dry Pond Retrofit	Stone Crossing Court
E	CU9155	Dry Pond Retrofit	Poplar Tree Road at Sully Park Drive
E	CU9156	Dry Pond Retrofit	Lock Drive at Crenshaw Drive, Poplar Tree Road
E	CU9157	Dry Pond Retrofit	Poplar Tree Road, Braywood Drive
E	CU9158	Dry Pond Retrofit	Belle Plains Drive and Sequoia Farms Drive
E	CU9159	Dry Pond Retrofit	Walney Road and Walney Park Drive
E	CU9201	Stream Restoration	Within Bull Run Regional Park south of I-66 to Bull Run Confluence
E	CU9202	Stream Restoration	Between Compton Road and Route 66. Part 2.
E	CU9203	Stream Restoration	Upstream from Cub Run Confluence and downstream from Route 29.
E	CU9204	Stream Restoration	The Meadows and Centre Ridge -upstream from I-66
E	CU9205	Stream Restoration	Below Awbrey Patent Drive and upstream from Route 29.



Table C-2
(continued)
Summary of Projects Within Each Implementation Phase

Phase	Structural Project	Project Type	Description
E	CU9206	Stream Restoration	Below Braddock Road
E	CU9207	Stream Restoration	Between Route 28 and Braddock Road
E	CU9211	Stream Restoration	Middle Cub Run main stem and selected tributaries - from Flatlick Branch to just below Route 29. Part 3.
E	CU9212	Stream Restoration	Upstream from Sully Park Drive
E	CU9301	Buffer Restoration	FCCA Parkland downstream from Big Rocky Run near Route 66 and Gate Post Estates
E	CU9303	Buffer Restoration	FCCA parkland and VDOT ROW I-66 / Route 28 interchange
E	CU9304	Buffer Restoration	FCCA parkland upstream and downstream from Awbrey Patent Drive
E	CU9305	Buffer Restoration	FCCA parkland downstream from Braddock Road
E	CU9306	Buffer Restoration	Private property upstream from Braddock Road crossing Cedar Break Drive within Sequoia Farms
E	CU9803	LID at Public Facilities	London Towne Elementary School
E	CU9804	LID at Public Facilities	Centreville Library
E	CU9805	LID at Public Facilities	Ellenor C. Lawrence Playing Field Parking Lot
E	CU9914	Headwater Drainage Systems	Headwater areas of watershed



Table C-3
Summary of Structural Projects By Phase and Group

Phase	Group	Structural Project	Project Type	Description
A	BR 1	CU9136	Dry Pond Retrofit	Britwell Place and Maureen Lane
A	BR 1	CU9138	Dry Pond Retrofit	Tallow Tree Place
A	BR 1	CU9313	Buffer Restoration	FCPA parkland upstream from Stringfellow Road near Greenbriar
A	BR 1	CU9314	Buffer Restoration	FCPA parkland downstream from Melville Lane
A	BR 1	CU9315	Buffer Restoration	FCPA parkland downstream from Middle Ridge Drive
A	BR 1	CU9811	LID at Public Facilities	Greenbriar East Elementary School
A	BR 1	CU9911	Neighborhoods Without Stormwater Controls	Greenbriar and Birch Pond
A	FB 1	CU9195	Dry Pond Retrofit	Fairfax County Parkway and Tuckaway Drive
A	FB 1	CU9198	Dry Pond Retrofit	Applegrove Lane and Fern Hollow Place
A	FB 1	CU9217	Stream Restoration	Downstream from Oxon Road to existing lake.
A	FB 1	CU9326	Buffer Restoration	Private property adjacent to Fairfax County Parkway upstream from Tuckaway Drive
A	FB 1	CU9327	Buffer Restoration	Private property upstream from Fairfax County Parkway and downstream from Thompson Road
A	FB 1	CU9328	Buffer Restoration	Private property upstream from Thompson Road
A	FB 1	CU9329	Buffer Restoration	Private property within Franklin Manor near Rose Grove Drive
A	FB 1	CU9701	Dry Pond Retrofit	Rose Grove Drive
A	FB 1	CU9702	Dry Pond Retrofit	Autumn Crest Drive and Pond Mist Way
A	FB 1	CU9703	Dry Pond Retrofit	Oxon Road and Oakton Chase Way
A	FB 1	CU9704	Dry Pond Retrofit	Camberley Forest Drive and Wilbury Road
A	FB 2	CU9001	Regional Pond	Regional Pond C39 - Foxfield Lane within the Foxfield Community
A	FB 2	CU9216	Stream Restoration	Franklin Glen
A	FB 3	CU9185	Dry Pond Retrofit	Beech Down Drive
A	FB 3	CU9186	Dry Pond Retrofit	Beech Down Drive and Bellerose Drive
A	FB 3	CU9320	Buffer Restoration	Private property upstream from Route 50 and downstream from Lees Corner Road



Table C-3
(continued)
Summary of Structural Projects By Phase and Group

Phase	Group	Structural Project	Project Type	Description
A	FB 3	CU9709	Dry Pond Retrofit	Sully Plaza, Rt 50 and Centreville Road
A	FB 4	CU9187	Dry Pond Retrofit	Hollinger Avenue and Lees Corner Road
A	FB 4	CU9188	Dry Pond Retrofit	Kernstown Court (C43)
A	FB 4	CU9321	Buffer Restoration	FCPA parkland downstream from Stringfellow Road near Brandy Station Road.
A	FB 4	CU9322	Buffer Restoration	Downstream from Stringfellow Road
A	FB 4	CU9324	Buffer Restoration	Private property upstream from Lees Corner Road
A	FB 4	CU9821	LID at Public Facilities	Lees Corner Elementary School
A	FB 5	CU9193	Dry Pond Retrofit	Mazewood Lane
A	FB 5	CU9194	Dry Pond Retrofit	Thompson Road and Oxon Road
A	FB 5	CU9325	Buffer Restoration	Private property downstream from Fairfax County Parkway
A	UC 1	CU9002	Regional Pond	Regional Pond C18 - Cain Branch between Route 28 and Centreville Road
A	UC 1	CU9220	Stream Restoration	Upstream from Route 28 and downstream from Centreville Road.
A	UC 1	CU9334	Buffer Restoration	Private property downstream from Centreville Road
A	UC 1	CU9335	Buffer Restoration	Private property upstream from Centreville Road and downstream from Lees Corner Road
A	UC 1	CU9336	Buffer Restoration	Private property upstream from Lees Corner Road
A	UC 1	CU9711	Dry Pond Retrofit	Franklin Middle School, Centreville Road
A	UC 1	CU9712	Dry Pond Retrofit	Centreville Road and Armfield Farm Drive
A	UC 1	CU9713	Dry Pond Retrofit	Lees Corner Road and Old Dairy Road
A	UC 1	CU9714	Dry Pond Retrofit	Franklin Farm Road and Hidden Meadow Circle
A	UC 1	CU9721	Dry Pond Retrofit	Dulles International Center, Eds Drive
A	UC 1	CU9722	Dry Pond Retrofit	Dulles Gateway Center Renaissance Park
A	UC 1	CU9825	LID at Public Facilities	Franklin Middle School
A	UC 2	CU9218	Stream Restoration	Cub Run including lower reaches of two tributaries near Pleasant Valley.



Table C-3
(continued)
Summary of Structural Projects By Phase and Group

Phase	Group	Structural Project	Project Type	Description
A	UC 2	CU9333	Buffer Restoration	FCPA parkland upstream from Cub Run and downstream from Stonecroft Boulevard
A	UC 2	CU9337	Buffer Restoration	Pleasant Valley neighborhood - Half of project is in FCPA parkland
A	UC 2	CU9715	Dry Pond Retrofit	Pleasant Valley Rd, Silas Hutchinson Dr
A	UC 2	CU9716	Dry Pond Retrofit	Technology Court and Lafayette Center Dr
A	UC 2	CU9719	Dry Pond Retrofit	Lafayette Business Center, Lafayette Center Drive
A	UC 2	CU9913	Neighborhoods Without Stormwater Controls	Pleasant Valley
A	Dumpsite	BR9901	Dump Site Removal	Both banks instream, Unnamed Bull Run tributary
A	Dumpsite	BR9902	Dump Site Removal	Left bank flood plain, Bull Run tributary
A	Dumpsite	CU9901	Dump Site Removal	Left bank flood plain, Lower Cub Run, Bull Run Regional Park.
A	Dumpsite	CU9902	Dump Site Removal	Left Bank flood plain, Lower Cub Run, Bull Run Regional Park
A	Dumpsite	CU9903	Dump Site Removal	Left Bank instream, Tributary to Lower Cub Run
A	Dumpsite	CU9904	Dump Site Removal	Left Bank flood plain, Big Rocky Run
A	Dumpsite	CU9905	Dump Site Removal	Left bank flood plain, Big Rocky Run downstream from Route 50
A	Dumpsite	CU9906	Dump Site Removal	Both banks flood plain, Flatlick Branch at Walney Road
A	Dumpsite	CU9907	Dump Site Removal	Both banks instream, Frog Branch near Stringfellow Road
A	Dumpsite	CU9908	Dump Site Removal	Both banks instream. Elclick Run within FCPA Parkland
A	Dumpsite	CU9909	Dump Site Removal	Left Bank, Cub Run and Schneider Branch off Stonecroft Boulevard.
A	-	CU9914	Headwater Drainage Systems	Headwater areas of watershed
A	-	CU9915	Riparian Wetland and Stream Study	Perform study to identify riparian wetland and stream restoration areas
B	BR 2	CU9145	Dry Pond Retrofit	Fair Ridge Drive, Fairleaf Court
B	BR 2	CU9146	Dry Pond Retrofit	Sweet Leaf Terrace and Fairleaf Court



Table C-3
(continued)
Summary of Structural Projects By Phase and Group

Phase	Group	Structural Project	Project Type	Description
B	BR 2	CU9192	Dry Pond Retrofit	Alder Woods Drive
B	BR 2	CU9210	Stream Restoration	Upstream and downstream from Ox Hill Road. Upstream from Route 50.
B	BR 2	CU9215	Stream Restoration	Upstream from Alder Woods Drive Fair Oaks Estates
B	BR 2	CU9323	Buffer Restoration	Private property downstream from Fairfax County Parkway near Freehill Lane
B	BR 2	CU9822	LID at Public Facilities	Navy Elementary School
B	BR 3	CU9142	Dry Pond Retrofit	Fair Ridge Park, Meadow Field Drive
B	BR 3	CU9143	Dry Pond Retrofit	Fair Ridge Park, Rt. 50 and Fair Ridge Drive
B	BR 3	CU9144	Dry Pond Retrofit	Rt. 50 and Fair Ridge Drive, 50 West Corporate Center
B	BR 3	CU9209	Stream Restoration	Oaks Chase near Timber Oaks Trail
B	BR 4	CU9139	Dry Pond Retrofit	Trumbo Court and Monument Drive
B	BR 4	CU9208	Stream Restoration	Fair Lakes
B	FB 6	CU9184	Dry Pond Retrofit	Flatlick downstream from Route 50
B	FB 6	CU9214	Stream Restoration	Between Route 50 and Route 28, Part 1
B	FB 6	CU9318	Buffer Restoration	FCPA Parkland at Lees Corner Road
B	FB 6	CU9820	LID at Public Facilities	Brookfield Elementary School
B	FB 6	CU9912	Neighborhoods Without Stormwater Controls	Brookfield
B	LC 1	CU9150	Dry Pond Retrofit	Lee Forest Path and Stillfield Place
B	LC 1	CU9160	Dry Pond Retrofit	Oakengate Way
B	LC 1	CU9161	Dry Pond Retrofit	Hidden Canyon Road and Knoll View Place
B	LC 1	CU9162	Dry Pond Retrofit	Blueridge View Drive and Jordans Journey Drive
B	LC 1	CU9163	Dry Pond Retrofit	Eagle Tavern Lane
B	LC 1	CU9164	Dry Pond Retrofit	Snowhill Lane
B	LC 1	CU9165	Dry Pond Retrofit	Martins Hundred Drive
B	LC 1	CU9211	Stream Restoration	Middle Cub Run main stem and selected tributaries - from Flatlick Branch to just below Route 29. Part 1.
B	LC 1	CU9316	Buffer Restoration	Partially in FCPA parkland in Virginia Run - Downstream from Pleasant Valley Rd.



Table C-3
(continued)
Summary of Structural Projects By Phase and Group

Phase	Group	Structural Project	Project Type	Description
B	LC 1	CU9814	LID at Public Facilities	Virginia Run Elementary School
B	LC 2	CU9812	LID at Public Facilities	Stone Middle School
B	LC 2	CU9813	LID at Public Facilities	Deer Park Elementary School
B	LC 2	CU9815	LID at Public Facilities	Cub Run Elementary School
B	LC 2	CU9910	Neighborhoods Without Stormwater Controls	Country Club Manor
B	UC 3	CU9332	Buffer Restoration	FCPA parkland at Old Lee Road
B	UC 3	CU9823	LID at Public Facilities	Westfield High School
B	UC 3	CU9824	LID at Public Facilities	Cub Run Recreation Center
B	-	CU9914	Headwater Drainage Systems	Headwater areas of watershed
C	BR 5	CU9132	Dry Pond Retrofit	Poplar Tree Park, Melville Ln and Marble Rock Drive
C	BR 5	CU9309	Buffer Restoration	FCPA parkland upstream from Northbourne Drive and downstream from Stringfellow Road
C	BR 5	CU9310	Buffer Restoration	FCPA parkland downstream from Stringfellow Road
C	BR 5	CU9808	LID at Public Facilities	Poplar Tree Park Playing Fields Parking Lot
C	BR 5	CU9809	LID at Public Facilities	Poplar Tree Elementary School
C	FB 7	CU9134	Dry Pond Retrofit	Point Pleasant Drive and Hazelnut Court
C	FB 7	CU9182	Dry Pond Retrofit	Currey Lane, Chantilly Library
C	FB 7	CU9311	Buffer Restoration	FCPA parkland downstream from Point Pleasant Drive
C	FB 7	CU9312	Buffer Restoration	FCPA parkland downstream from Stringfellow Road and Point Pleasant Drive
C	FB 7	CU9810	LID at Public Facilities	Rocky Run Middle School
C	FB 7	CU9817	LID at Public Facilities	Chantilly Library



Table C-3
(continued)
Summary of Structural Projects By Phase and Group

Phase	Group	Structural Project	Project Type	Description
C	FB 7	CU9818	LID at Public Facilities	Chantilly High School
C	FB 7	CU9819	LID at Public Facilities	Greenbriar West Elementary School
C	FB 8	CU9176	Dry Pond Retrofit	Fillingame Drive Between Quitway Court and Lowry Drive
C	FB 8	CU9177	Dry Pond Retrofit	Smallwood Court
C	FB 8	CU9178	Dry Pond Retrofit	Fallen Oak Court
C	FB 8	CU9180	Dry Pond Retrofit	Stream Valley Drive
C	FB 8	CU9319	Buffer Restoration	FCPA Parkland downstream from Stringfellow Road
C	FB 9	CU9172	Dry Pond Retrofit	Flatlick Branch Drive
C	FB 9	CU9174	Dry Pond Retrofit	Walney Road and Mariah Court
C	FB 9	CU9175	Dry Pond Retrofit	Penny Tree Place
C	LC 3	BR9102	Dry Pond Retrofit	Old Centreville Road and Compton Road
C	LC 3	BR9104	Dry Pond Retrofit	Flamborough Rd near Jenny Leigh Court
C	LC 3	BR9105	Dry Pond Retrofit	Cedar Loch Court
C	LC 3	BR9106	Dry Pond Retrofit	Tracy Schar Lane
C	LC 3	BR9107	Dry Pond Retrofit	Wheat Mill Way and Grainery Road
C	LC 3	BR9108	Dry Pond Retrofit	Sharps Drive
C	LC 3	BR9801	LID at Public Facilities	Centreville Elementary School
C	LC 4	CU9151	Dry Pond Retrofit	Green Park Way, Basingstoke Loop (C22)
C	LC 4	CU9152	Dry Pond Retrofit	Grobie Pond Lane and Watermark Circle (C22)
C	LC 4	CU9211	Stream Restoration	Middle Cub Run main stem and selected tributaries - from Flatlick Branch to just below Route 29. Part 2.
C	LC 5	CU9103	Dry Pond Retrofit	Between Outpost Court and I-66 (C04)
C	LC 5	CU9302	Buffer Restoration	Partially in FCPA parkland upstream from I-66. Centre Ridge
C	LC 5	CU9802	LID at Public Facilities	Centre Ridge Elementary School
C	UC 4	CU9330	Buffer Restoration	FCPA parkland near Pleasant Valley Road north of Elklick Run
C	UC 4	CU9331	Buffer Restoration	FCPA parkland adjacent to Pleasant Valley Road south of Elklick Run
C	UC 4	CU9705	Dry Pond Retrofit	Kentwell Circle



Table C-3
(continued)
Summary of Structural Projects By Phase and Group

Phase	Group	Structural Project	Project Type	Description
C	-	CU9914	Headwater Drainage Systems	Headwater areas of watershed
D	BR 6	CU9127	Dry Pond Retrofit	Cabells Mill Drive and Ashcomb Court
D	BR 6	CU9128	Dry Pond Retrofit	Rushbrook Drive and Nanticoke Drive
D	BR 6	CU9307	Buffer Restoration	Partially in FCPA parkland Ellicott Court downstream from Northbourne Drive
D	BR 6	CU9308	Buffer Restoration	Partially in FCPA parkland downstream from Veronica Road - upstream from regional pond C30
D	BR 6	CU9806	LID at Public Facilities	Cabells Mill Parking Area
D	BR 6	CU9807	LID at Public Facilities	Stringfellow Road Commuter Lot
D	BR 7	CU9124	Dry Pond Retrofit	Route 28 ramp to I-66, Pickwick Road
D	BR 7	CU9125	Dry Pond Retrofit	Melton Place and Pickwick Road
D	FB 10	CU9171	Dry Pond Retrofit	Brookfield Corporate Center
D	FB 10	CU9213	Stream Restoration	Upstream and downstream from Stonecroft Boulevard
D	FB 10	CU9214	Stream Restoration	Between Route 50 and Route 28. Part 2.
D	FB 10	CU9317	Buffer Restoration	FCPA parkland upstream from Braddock Road
D	FB 11	CU9167	Dry Pond Retrofit	Parkstone Drive, Va DMV
D	FB 11	CU9169	Dry Pond Retrofit	Westfields Blvd and Stonecroft Boulevard
D	FB 11	CU9170	Dry Pond Retrofit	Lee Road
D	FB 11	CU9816	LID at Public Facilities	Sully District Supervisor's Office
D	LC 6	CU9202	Stream Restoration	Between Compton Road and Route 66. Part 1.
D	LC 6	CU9801	LID at Public Facilities	Bull Run Elementary School
D	LC 7	BR9201	Stream Restoration	Below quarry
D	LC 8	BR9301	Buffer Restoration	Private Property
D	LC 8	BR9302	Buffer Restoration	Private Property
D	LC 8	BR9303	Buffer Restoration	Private Property
D	LC 8	BR9304	Buffer Restoration	Fairfax National Estates
D	UC 5	CU9219	Stream Restoration	Upstream from Route 50. Upstream and downstream from Avion Parkway.
D	UC 5	CU9221	Stream Restoration	Upstream from Stonecroft Boulevard.
D	UC 5	CU9338	Buffer Restoration	Private property at Stonecroft Boulevard



Table C-3
(continued)
Summary of Structural Projects By Phase and Group

Phase	Group	Structural Project	Project Type	Description
D	UC 5	CU9339	Buffer Restoration	Private property upstream from Stonecroft Boulevard
D	UC 5	CU9706	Dry Pond Retrofit	Flint Lee Business Center, Stonecroft Rd.
D	UC 5	CU9707	Dry Pond Retrofit	Lee Road and Willard Road
D	UC 5	CU9710	Dry Pond Retrofit	Westfax Industrial Park, Rt 50 and Westfax Dr
D	UC 5	CU9717	Dry Pond Retrofit	Driving Training Center, Stonecroft Blvd
D	UC 5	CU9718	Dry Pond Retrofit	Avion Parkway and Virginia Mallory Drive
D	UC 5	CU9720	Dry Pond Retrofit	Stonecroft Blvd. and Thompson Road
D	-	CU9914	Headwater Drainage Systems	Headwater areas of watershed
E	BR 8	CU9154	Dry Pond Retrofit	Stone Crossing Court
E	BR 8	CU9155	Dry Pond Retrofit	Poplar Tree Road at Sully Park Drive
E	BR 8	CU9156	Dry Pond Retrofit	Lock Drive at Crenshaw Drive, Poplar Tree Road
E	BR 8	CU9157	Dry Pond Retrofit	Poplar Tree Road, Braywood Drive
E	BR 8	CU9158	Dry Pond Retrofit	Belle Plains Drive and Sequoia Farms Drive
E	BR 8	CU9159	Dry Pond Retrofit	Walney Road and Walney Park Drive
E	BR 8	CU9212	Stream Restoration	Upstream from Sully Park Drive
E	BR 9	CU9121	Dry Pond Retrofit	Braddock Road and Village Center Drive
E	BR 9	CU9123	Dry Pond Retrofit	Filly Court
E	BR 9	CU9207	Stream Restoration	Between Route 28 and Braddock Road
E	BR 9	CU9306	Buffer Restoration	Private property upstream from Braddock Road crossing Cedar Break Drive within Sequoia Farms
E	BR 9	CU9805	LID at Public Facilities	Ellanor C. Lawrence Playing Field Parking Lot
E	BR 10	CU9112	Dry Pond Retrofit	Stonepath Court
E	BR 10	CU9113	Dry Pond Retrofit	Havner House Way near I-66, Route 29 Intersection
E	BR 10	CU9115	Dry Pond Retrofit	Truro Parish Court
E	BR 10	CU9119	Dry Pond Retrofit	Rocky Run Drive and Awbrey Patent Drive
E	BR 10	CU9122	Dry Pond Retrofit	Virginia Chase Drive
E	BR 10	CU9205	Stream Restoration	Below Awbrey Patent Drive and upstream from Route 29.
E	BR 10	CU9206	Stream Restoration	Below Braddock Road



Table C-3
(continued)
Summary of Structural Projects By Phase and Group

Phase	Group	Structural Project	Project Type	Description
E	BR 10	CU9303	Buffer Restoration	FCPA parkland and VDOT ROW I-66 / Route 28 interchange
E	BR 10	CU9304	Buffer Restoration	FCPA parkland upstream and downstream from Awbrey Patent Drive
E	BR 10	CU9305	Buffer Restoration	FCPA parkland downstream from Braddock Road
E	BR 10	CU9803	LID at Public Facilities	London Towne Elementary School
E	BR 11	CU9105	Dry Pond Retrofit	Field Encampment Road and Field Flower Trail
E	BR 11	CU9107	Dry Pond Retrofit	Centrewood Drive and Machen Road
E	BR 11	CU9109	Dry Pond Retrofit	Hoskins Hollow Circle
E	BR 11	CU9111	Dry Pond Retrofit	Old Centreville Road and Sunset Ridge Road
E	BR 11	CU9204	Stream Restoration	The Meadows and Centre Ridge - upstream from I-66
E	BR 11	CU9804	LID at Public Facilities	Centreville Library
E	BR 12	CU9104	Dry Pond Retrofit	James Harris Way
E	BR 12	CU9106	Dry Pond Retrofit	Industrial Park at Route 29 and I-66 Interchange
E	BR 12	CU9147	Dry Pond Retrofit	Rydell Road
E	BR 12	CU9148	Dry Pond Retrofit	Prince Way
E	BR 12	CU9203	Stream Restoration	Upstream from Cub Run Confluence and downstream from Route 29.
E	BR 12	CU9301	Buffer Restoration	FCPA Parkland downstream from Big Rocky Run near Route 66 and Gate Post Estates
E	LC 9	CU9211	Stream Restoration	Middle Cub Run main stem and selected tributaries - from Flatlick Branch to just below Route 29. Part 3.
E	LC 10	CU9201	Stream Restoration	Within Bull Run Regional Park south of I-66 to Bull Run Confluence
E	LC 10	CU9202	Stream Restoration	Between Compton Road and Route 66. Part 2.
E	-	CU9914	Headwater Drainage Systems	Headwater areas of watershed



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Fact Sheets

Projects BR9101 through BR9902

Bull Run Watershed Structural Projects

Projects BR9101 through BR9902

Project ID:	BR9101
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Hovingham Court PIN - 0653 03 J1 Croton Commons Bull Run East
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$30,138
Base Construction Cost				\$30,138
Mobilization (5%)				\$1,507
Subtotal 1				\$31,645
Contingency (25%)				\$7,911
Subtotal 2				\$39,556
Engineering design, surveys, land acquisition, utility locations, and permits (45%)			\$17,800	
Total				\$57,356
Estimated Project Cost				\$58,000



Project ID:	BR9102
Project Type:	Dry Pond Retrofit
Location:	Old Centreville Road & Compton Road PIN - 0653 03 B Crofton Commons Bull Run East
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$36,420
Base Construction Cost				\$36,420
Mobilization (5%)				\$1,821
Subtotal 1				\$38,241
Contingency (25%)				\$9,560
Subtotal 2				\$47,801
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$21,511
Total				\$69,312
Estimated Project Cost				\$70,000



Project ID:	BR9103
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Compton Road & Confederate Ridge Lane Regional Pond C49 PIN - 0653 05 A Confederate Ridge Bull Run East
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$116,412
Base Construction Cost				\$116,412
Mobilization (5%)				\$5,821
Subtotal 1				\$122,233
Contingency (25%)				\$30,558
Subtotal 2				\$152,791
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$68,756
Total				\$221,547
Estimated Project Cost				\$222,000



Project ID	BR9104
Project Type:	Dry Pond Retrofit
Location:	Flamborough Road near Jenny Leigh Court. PIN - 0653 06 B1 Clifton Townes Bull Run East
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$40,290
Base Construction Cost				\$40,290
Mobilization (5%)				\$2,015
Subtotal 1				\$42,305
Contingency (25%)				\$10,576
Subtotal 2				\$52,881
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$23,796
Total				\$76,677
Estimated Project Cost				\$77,000



Project ID:	BR9105
Project Type:	Dry Pond Retrofit
Location:	Cedar Loch Court PIN - 0653 12 E Compton Village Bull Run East
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$66,795
Base Construction Cost				\$66,795
Mobilization (5%)				\$3,340
Subtotal 1				\$70,135
Contingency (25%)				\$17,534
Subtotal 2				\$87,668
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$39,451
Total				\$127,119
Estimated Project Cost				\$128,000



Project ID:	BR9106
Project Type:	Dry Pond Retrofit
Location:	Tracy Schar Lane PIN - 0653 09 C Willoughby Woods Bull Run East
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$36,600
Base Construction Cost				\$36,600
Mobilization (5%)				\$1,830
Subtotal 1				\$38,430
Contingency (25%)				\$9,608
Subtotal 2				\$48,038
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$21,617
Total				\$69,654
Estimated Project Cost				\$70,000



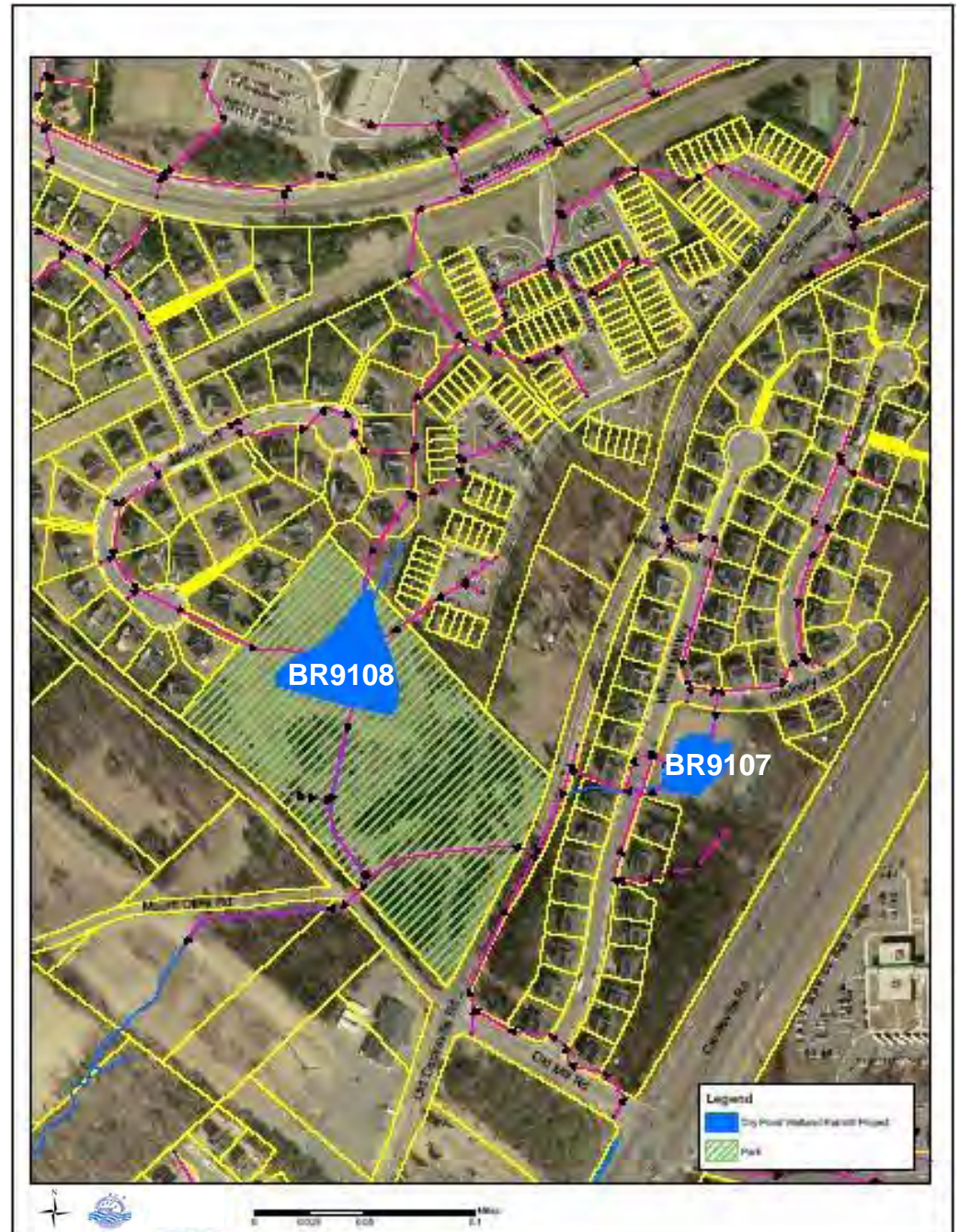
Project ID:	BR9107
Project Type:	Dry Pond Retrofit
Location:	Wheat Mill Way & Grainery Road PIN - 0651 09 B Old Mill Section 1 Bull Run East
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$44,520
Base Construction Cost				\$44,520
Mobilization (5%)				\$2,226
Subtotal 1				\$46,746
Contingency (25%)				\$11,687
Subtotal 2				\$58,433
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$26,295
Total				\$84,727
Estimated Project Cost				\$85,000



Project ID:	BR9108
Project Type:	Dry Pond Retrofit
Location:	Sharps Drive PIN - 0651 05 G1 Centre Ridge Bull Run East
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$69,873
Base Construction Cost				\$69,873
Mobilization (5%)				\$3,494
Subtotal 1				\$73,367
Contingency (25%)				\$18,342
Subtotal 2				\$91,708
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$41,269
Total				\$132,977
Estimated Project Cost				\$133,000



Project ID:	BR9109
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Smiths Terrace near Beckford Way PIN - 0641 06 J1 Westport Bull Run West
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$38,400
Base Construction Cost				\$38,400
Mobilization (5%)				\$1,920
Subtotal 1				\$40,320
Contingency (25%)				\$10,080
Subtotal 2				\$50,400
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$22,680
Total				\$73,080
Estimated Project Cost				\$74,000



Project ID:	BR9201
Project Type:	Stream Restoration
Location:	Bull Run Tributary – Below quarry Tax Maps – 64-1, 64-3, 63-4. Bull Run West watershed.
Description:	Bank stability scores of 3 and 4 with significant buffer impacts. SCI of 2.2. Located in private property. Stream is impacted by lack of buffers and potentially from changes in hydrology produced by quarry. Total project length is 4,420 linear feet, not all requires restoration.

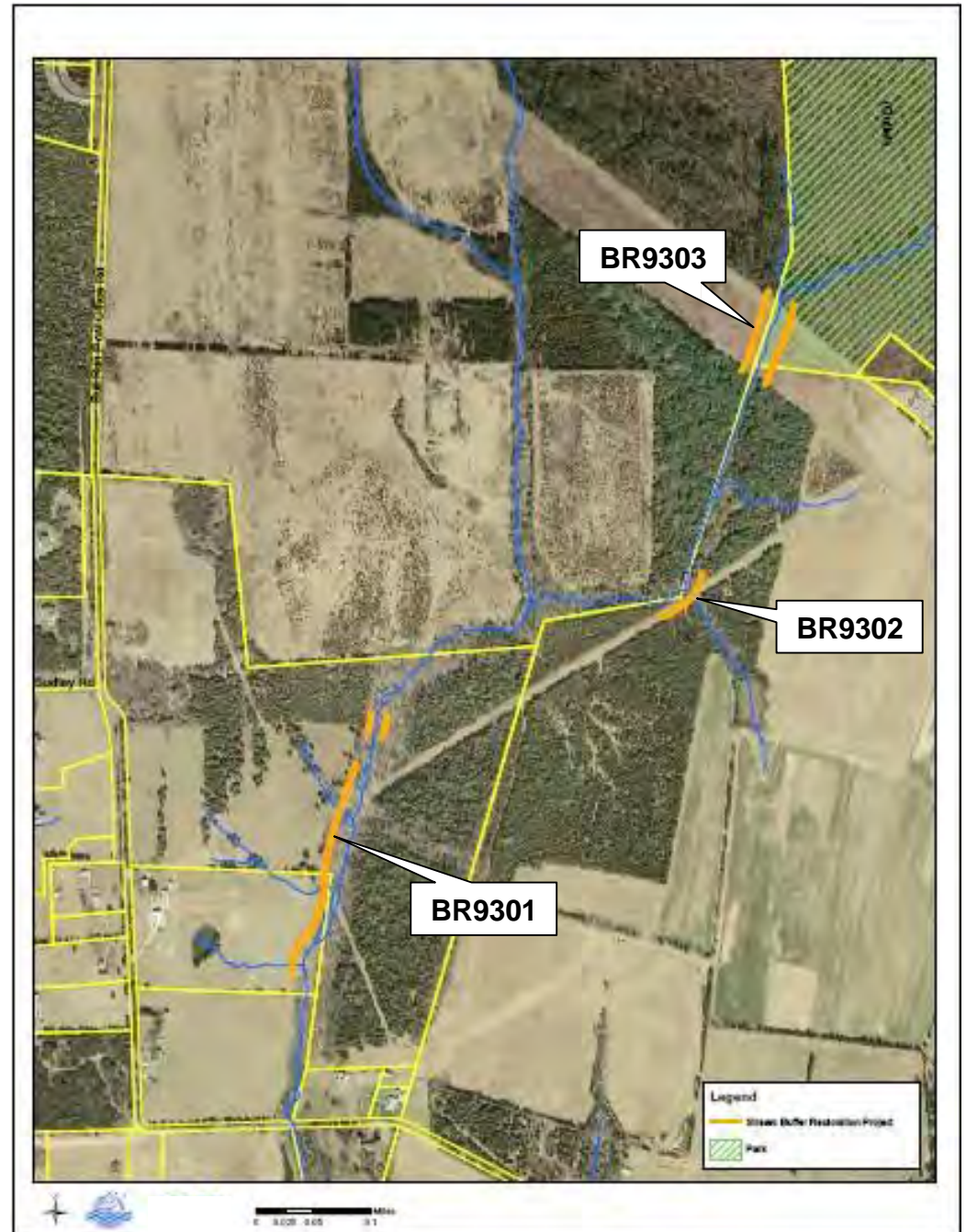
Item	Qty	Units	Unit Cost	Total Cost
Length	4,420	Feet	\$190.43	\$841,700
Base Construction Cost				\$841,700
Mobilization (5%)				\$42,085
Subtotal 1				\$883,785
Contingency (25%)				\$220,946
Subtotal 2				\$1,104,731
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$497,129
Total				\$1,601,860
Estimated Project Cost				\$1,602,000



Project ID:	BR9301
Project Type:	Buffer Restoration
Location:	Private Property in unnamed tributary in Bull Run West watershed. Tax Map – 52-2
Description:	Impacted by fields, mowing and clearing.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	1,270	Feet	\$12.50	\$15,875
Base Construction Cost				\$15,875
Mobilization (5%)				\$794
Subtotal 1				\$16,669
Contingency (25%)				\$4,167
Subtotal 2				\$20,836
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$9,376
Total				\$30,212
Estimated Project Cost				\$31,000

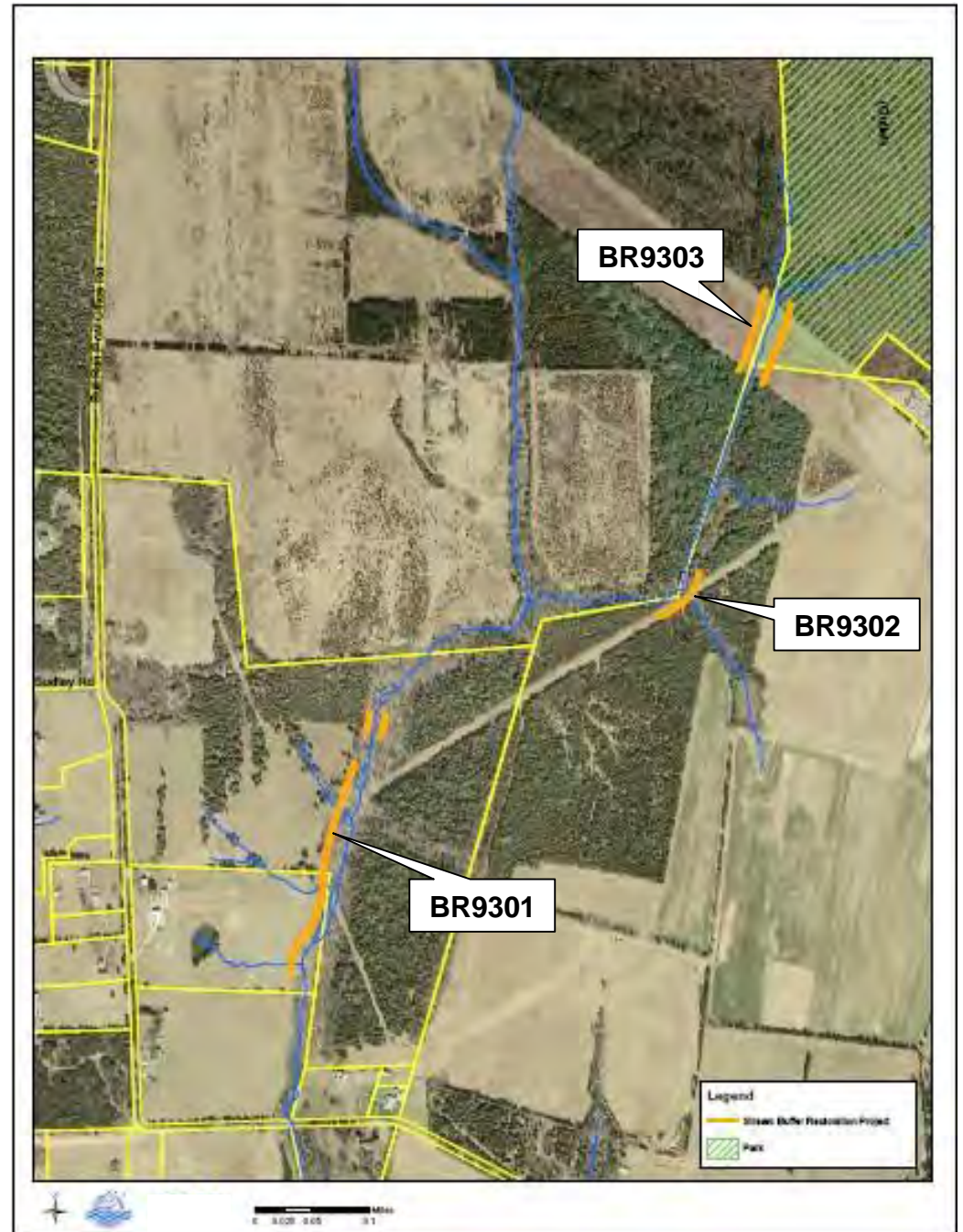
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	BR9302
Project Type:	Buffer Restoration
Location:	Private Property in unnamed tributary in Bull Run West watershed Tax Map – 52-2
Description:	Impacted by utility right of way mowing and clearing.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	310	Feet	\$12.50	\$3,875
Base Construction Cost				\$3,875
Mobilization (5%)				\$194
Subtotal 1				\$4,069
Contingency (25%)				\$1,017
Subtotal 2				\$5,086
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$2,289
Total				\$7,375
Estimated Project Cost				\$8,000

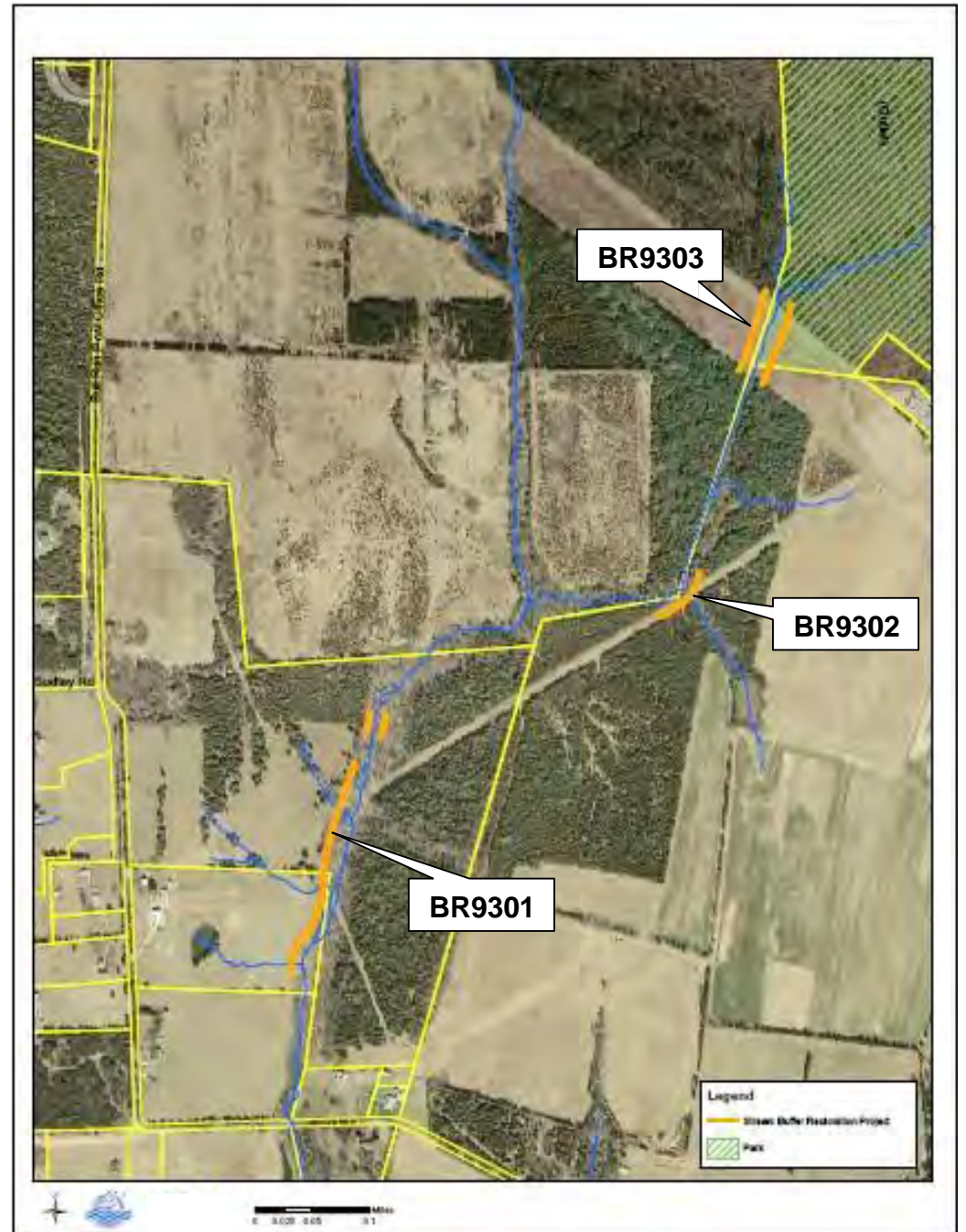
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	BR9303
Project Type:	Buffer Restoration
Location:	Private Property in unnamed tributary in Bull Run West watershed Tax Map – 52-2
Description:	Impacted by power line right of way mowing and clearing.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	800	Feet	\$12.50	\$10,000
Base Construction Cost				\$10,000
Mobilization (5%)				\$500
Subtotal 1				\$10,500
Contingency (25%)				\$2,625
Subtotal 2				\$13,125
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$5,906
Total				\$19,031
Estimated Project Cost				\$20,000

* - Cumulative length of impacted stream buffer within project limits.



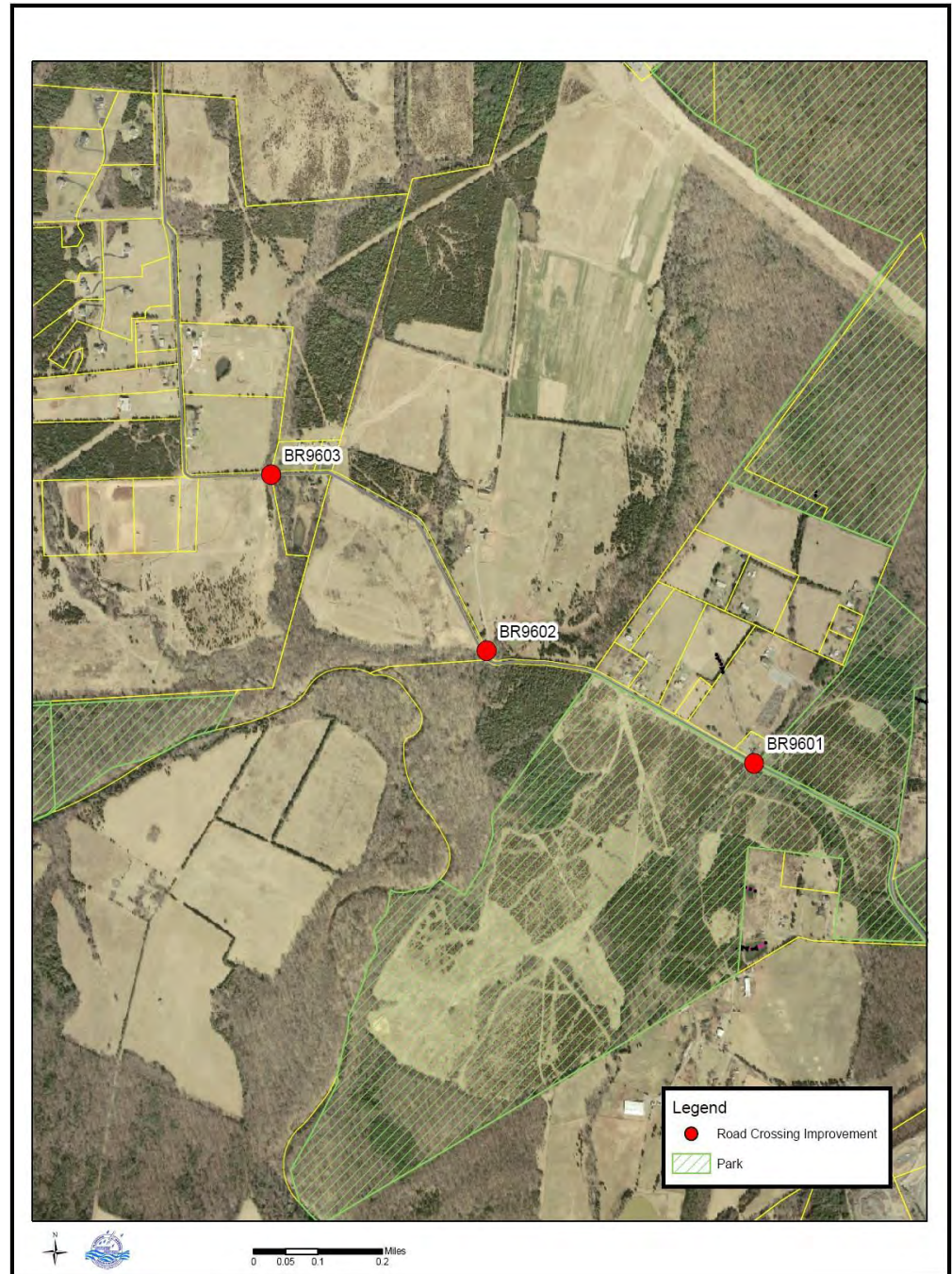
Project ID:	BR9304
Project Type:	Buffer Restoration
Location:	Private Property within Fairfax National Estates in unnamed tributary in Bull Run West watershed Tax Map 52-1 Subdivision – Cedar Crest Estates
Description:	Impacted by fields and new development.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	220	Feet	\$12.50	\$2,750
Base Construction Cost				\$2,750
Mobilization (5%)				\$138
Subtotal 1				\$2,888
Contingency (25%)				\$722
Subtotal 2				\$3,609
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$1,624
Total				\$5,234
Estimated Project Cost				\$6,000

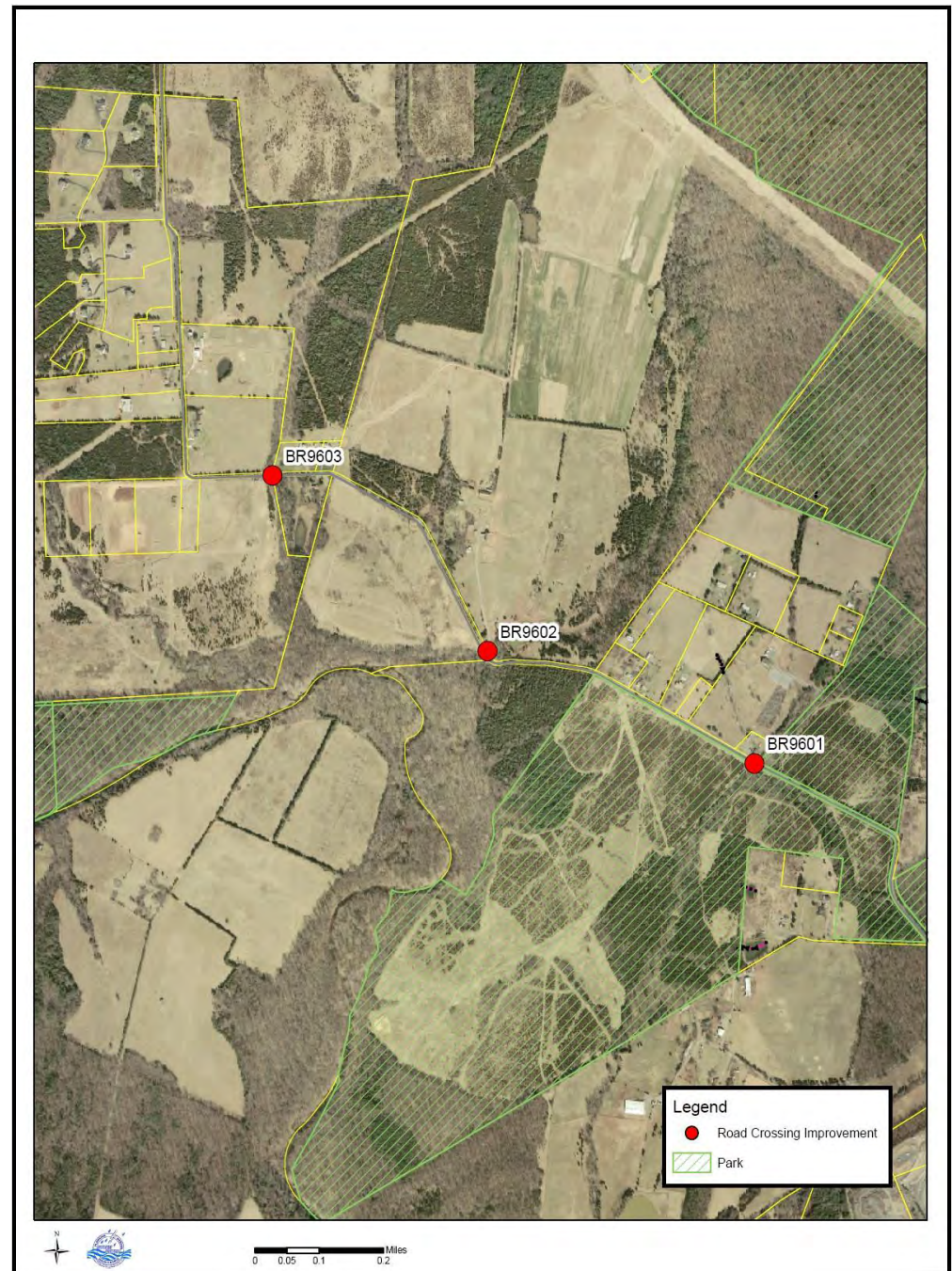
- Cumulative length of impacted stream buffer within project limits.



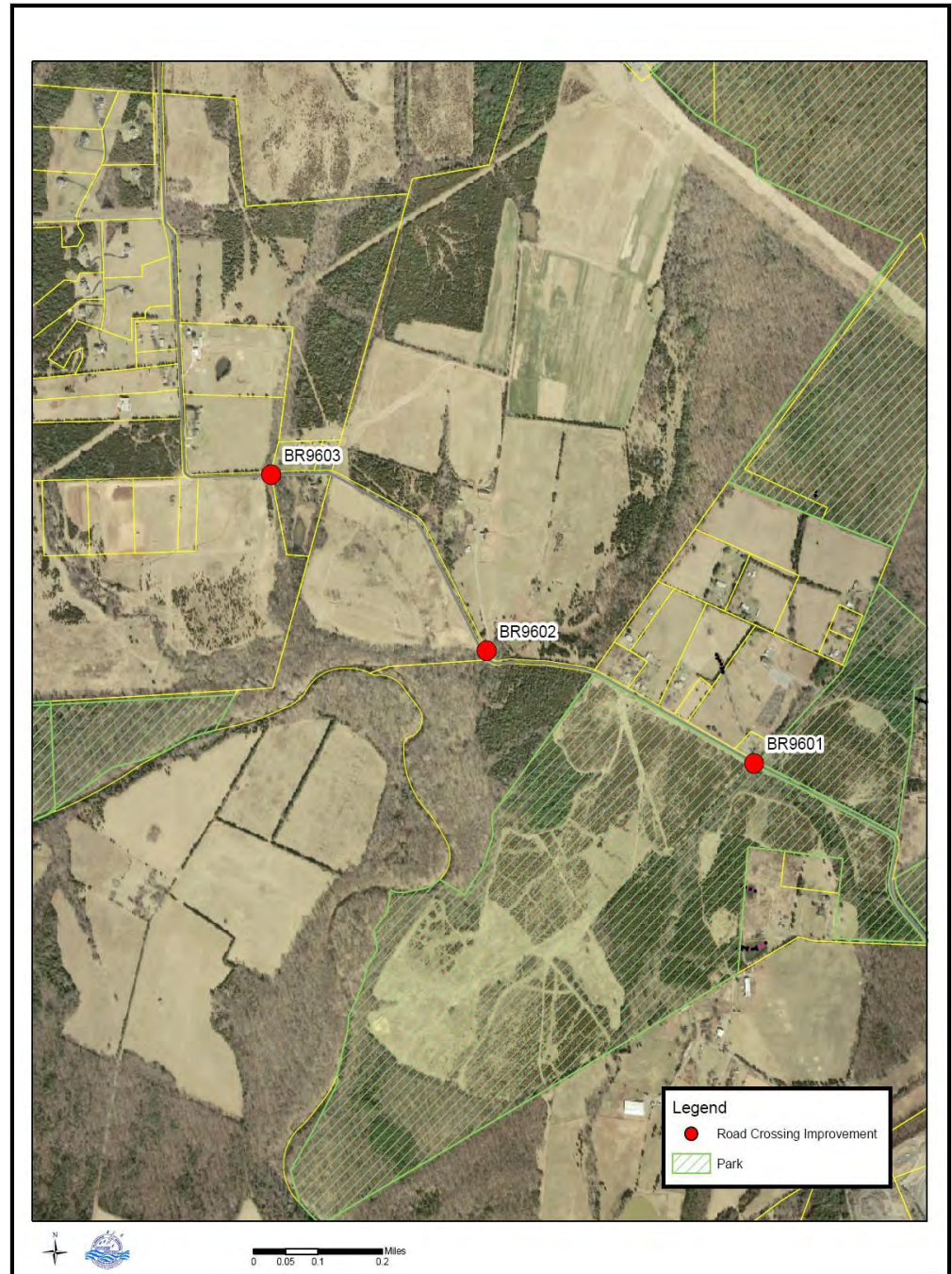
Project ID:	BR9601
Project Type:	Road Crossing Improvement project
Location:	Bull Run Post Office Road at unnamed tributary (easternmost of three crossings) within Bull Run West Subwatershed.
Description :	Raise road and replace existing culvert with a larger culvert to address roadway flooding and impact of road on the stream. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



Project ID:	BR9602
Project Type:	Road Crossing Improvement
Location:	Bull Run Post Office Road at unnamed tributary (middle of three crossings) with Bull Run West subwatershed
Description:	Raise road and replace existing culvert with a larger culvert to address roadway flooding and impact of road on the stream. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



Project ID:	BR9603
Project Type:	Road Crossing Improvement
Location:	Bull Run Post Office Road at unnamed tributary (westernmost of three crossings) with Bull Run West subwatershed
Description:	Raise road and replace existing culvert with a larger culvert to address roadway flooding and impact of road on the stream. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



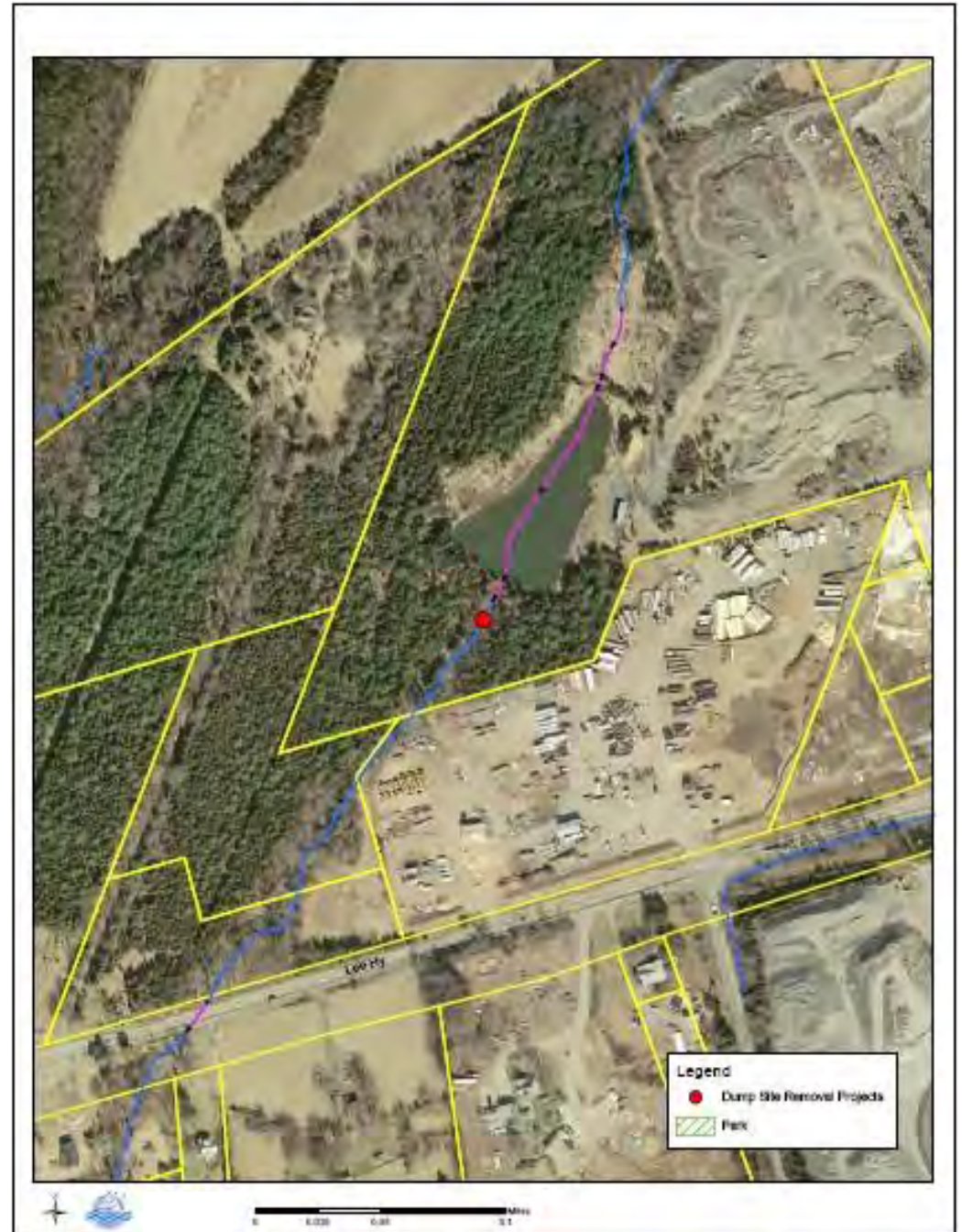
Project ID:	BR9801
Project Type:	LID Projects at Public Facility
Location:	Centreville Elementary School. Route 28 and Green Trails Boulevard. Bull Run East Watershed.
Description:	Implement LID project at Centreville Elementary School. Conceptual plan consists of two manufactured bioretention units at one location. Area served = 0.9 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	2			\$41,250
Base Construction Cost				\$41,250
Mobilization (5%)				\$2,063
Subtotal 1				\$43,313
Contingency (25%)				\$10,828
Subtotal 2				\$54,141
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$24,363
Total				\$78,504
Estimated Project Cost				\$79,000

Project ID:	BR9901
Project Type:	Dump Site Removal Project
Location:	Both banks instream, Unnamed Bull Run tributary. Near quarry upstream from Route 29. Bull Run West watershed
Description:	Dirt piles in the stream. Impact score of 7. (BLBU001.M001)
Estimated Project Cost:	\$5,000



Project ID:	BR9902
Project Type:	Dump Site Removal Project
Location:	Left bank flood plain, Bull Run tributary. South of Sudley Road near Peaceful Meadow Lane and Hallisey Court. Fairfax National Estates.
Description:	Rusted truck and metal waste. Impact score of 5. (BLBU005.M001)
Estimated Project Cost:	\$5,000



Fact Sheets

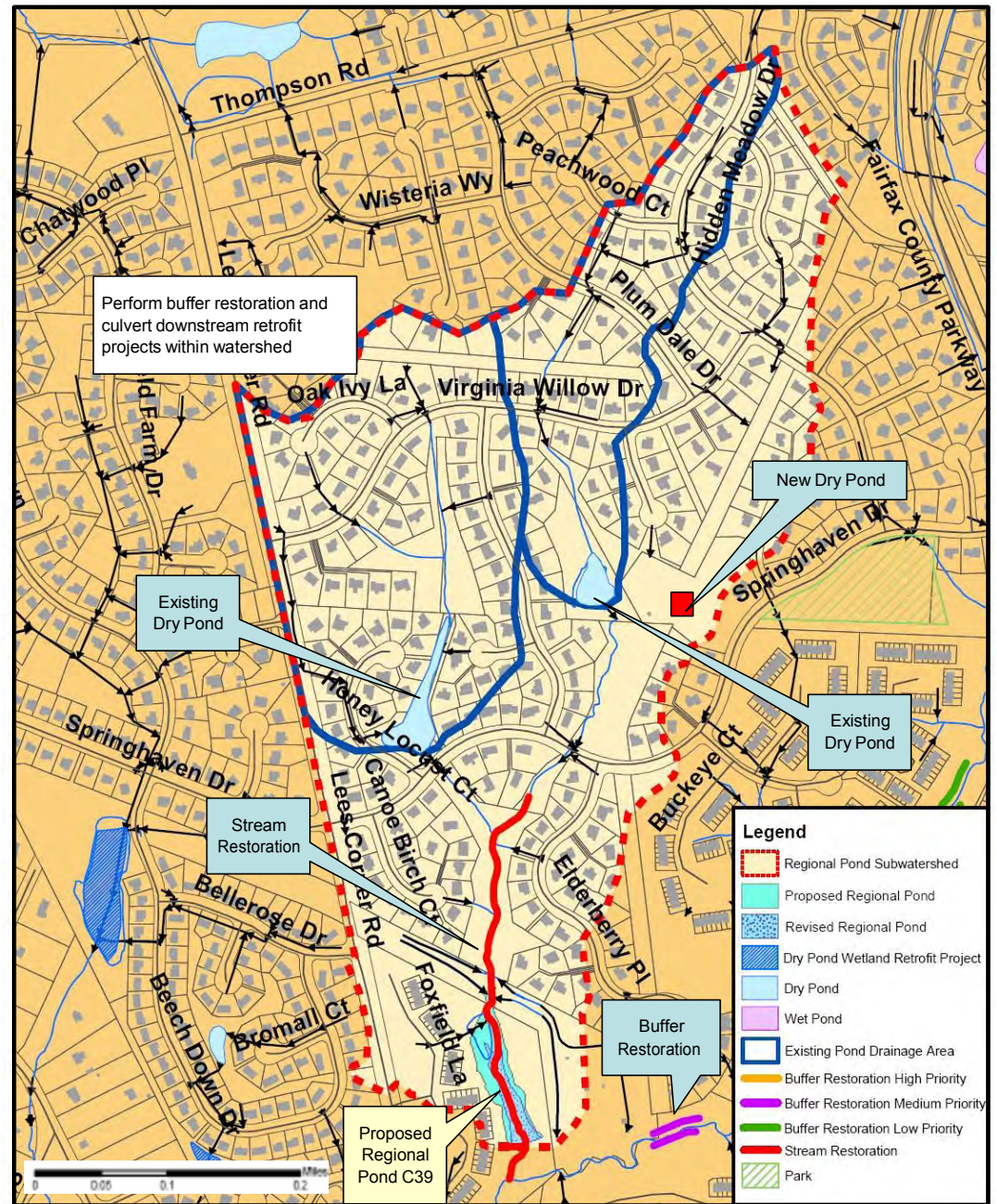
Projects CU9001 and CU9002

Cub Run Watershed Regional Pond or Alternative Projects

Projects CU9001 and CU9002. These are the only two regional ponds included in the watershed plan. As documented in Section 6, several of the previously proposed regional ponds have been deleted and alternative stormwater controls will be implemented. The alternative stormwater control for these deleted regional ponds are documented in Section 6 and included as separate projects.

Project ID	CU9001 – Regional Pond C39
Location	Foxfield Lane within the Foxfield Community PIN – 0353 17 J
Description	Implement a reduced-size or modified regional pond at the proposed site of regional pond C39 as a dry pond with an extended detention storage volume equivalent to approximately one-inch of runoff from the impervious area. Also implement identified alternative stormwater projects to address stream erosion within and downstream from the dry pond and to improve health of the streams upstream from the regional pond. If the pond cannot be implemented, then implement alternative projects including upstream smaller dry pond as shown.

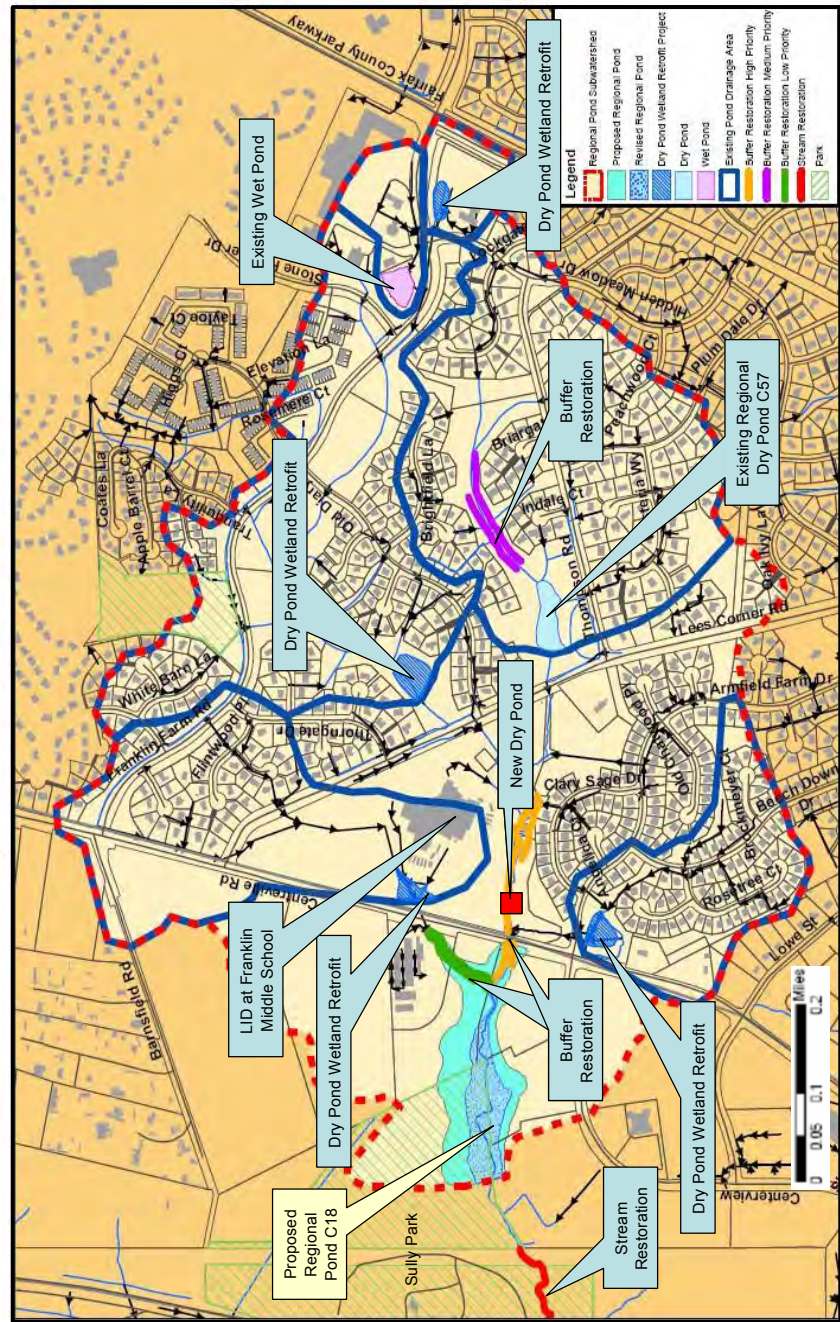
Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond	1	Dry Pond		\$335,764
Base Construction Cost				\$335,764
Mobilization (5%)				\$16,788
Subtotal 1				\$352,552
Contingency (25%)				\$88,138
Subtotal 2				\$440,690
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$198,310
Total				\$639,000
Estimated Project Cost				\$639,000



Description and costs for alternative projects are included as separate structural project fact sheets

Project ID	CU9002 - Regional Pond C18			
Location	Cain Branch between Route 28 and Centreville Road Parcels 0342 01 0014, 0342 01 0001D, 0342 01 0017D			
Description	Construct extended dry detention regional pond (1-year, 24 hour) with reduced storage volume and footprint at site of proposed wet pond. If construction of a dry pond at the proposed regional pond location is not possible, the next preferred alternative is to build a dry pond at an upstream location without the alternative stormwater controls. If neither pond is implemented, then construct other alternative controls.			

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond	1	Pond		\$751,921
Base Construction Cost				\$751,921
Mobilization (5%)				\$37,596
Subtotal 1				\$789,517
Contingency (25%)				\$197,379
Subtotal 2				\$986,897
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$444,104
Total				\$1,431,000
Estimated Project Cost				\$1,431,000



Description and costs for alternative projects are included as separate structural project fact sheets

Proposed Regional Pond C18 or Alternative Projects



Fact Sheets

Projects CU9101 through CU9199

Cub Run Watershed Dry Pond Retrofit Projects (Part 1)

Projects CU9101 through CU9199. The remaining dry pond retrofit projects are included as projects CU9701 through CU9722. This includes all dry pond retrofit projects including those with a low priority.

Project ID:	CU9101
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Bronze Post Road near Compton Road PIN - 0642 0403 B Gate Post Estates Section 2 Lower Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$72,852
Base Construction Cost				\$72,852
Mobilization (5%)				\$3,643
Subtotal 1				\$76,495
Contingency (25%)				\$19,124
Subtotal 2				\$95,618
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$43,028
Total				\$138,646
Estimated Project Cost				\$139,000



Project ID:	CU9102– Low Priority
Project Type:	Dry Pond Retrofit
Location:	Hickory Post Court PIN - 0642 0402 A Gate Post Estates Section 2 Lower Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance



Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$55,797
Base Construction Cost				\$55,797
Mobilization (5%)				\$2,790
Subtotal 1				\$58,587
Contingency (25%)				\$14,647
Subtotal 2				\$73,234
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$32,955
Total				\$106,189
Estimated Project Cost				\$107,000

Project ID:	CU9103
Project Type:	Dry Pond Retrofit
Location:	Between Outpost Court and Route 66 Regional Pond C04 PIN - 0651 05 F1 Centre Ridge Lower Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$105,990
Base Construction Cost				\$105,990
Mobilization (5%)				\$5,300
Subtotal 1				\$111,290
Contingency (25%)				\$27,822
Subtotal 2				\$139,112
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$62,600
Total				\$201,712
Estimated Project Cost				\$202,000



Project ID:	CU9104
Project Type:	Dry Pond Retrofit
Location:	James Harris Way PIN - 0651 17 B Harris Property Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$43,719
Base Construction Cost				\$43,719
Mobilization (5%)				\$2,186
Subtotal 1				\$45,905
Contingency (25%)				\$11,476
Subtotal 2				\$57,381
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$25,822
Total				\$83,203
Estimated Project Cost				\$84,000



Project ID:	CU9105
Project Type:	Dry Pond Retrofit
Location:	Field Encampment Road and Field Flower Trail PIN - 0651 06 E Centre Ridge Section 5B-2 Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$36,681
Base Construction Cost				\$36,681
Mobilization (5%)				\$1,834
Subtotal 1				\$38,515
Contingency (25%)				\$9,629
Subtotal 2				\$48,144
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$21,665
Total				\$69,809
Estimated Project Cost				\$70,000



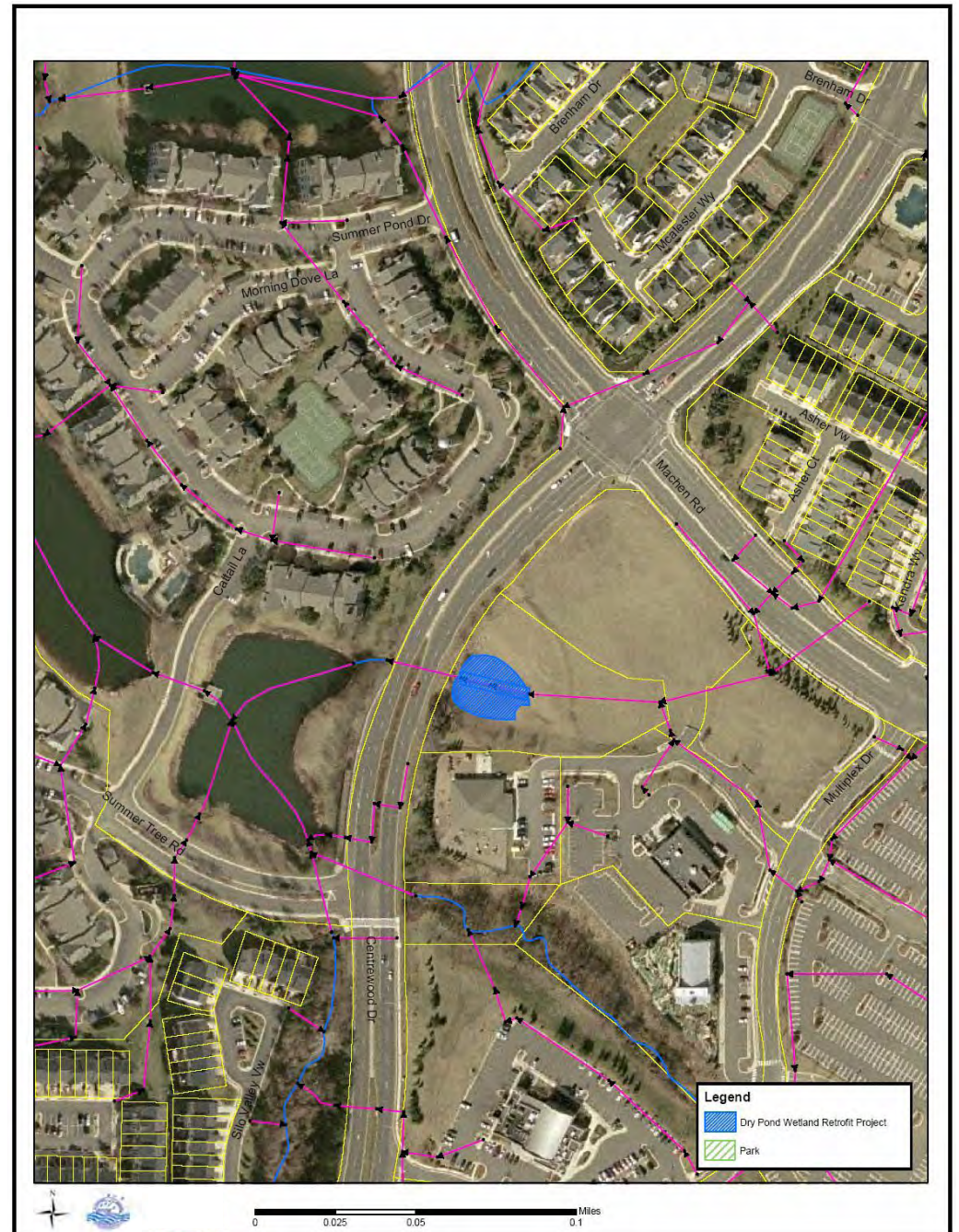
Project ID:	CU9106
Project Type:	Dry Pond Retrofit
Location:	Industrial Park southwest of Route 66 and Route 29 interchange PIN - 0543 01 0010 Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$32,667
Base Construction Cost				\$32,667
Mobilization (5%)				\$1,633
Subtotal 1				\$34,300
Contingency (25%)				\$8,575
Subtotal 2				\$42,875
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,294
Total				\$62,169
Estimated Project Cost				\$63,000



Project ID:	CU9107
Project Type:	Dry Pond Retrofit
Location:	Centrewood Drive & Machen Road PIN - 0651 10 0008 Centre Ridge (Commercial Area) Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Downstream wet pond Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$63,510
Base Construction Cost				\$63,510
Mobilization (5%)				\$3,176
Subtotal 1				\$66,686
Contingency (25%)				\$16,671
Subtotal 2				\$83,357
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$37,511
Total				\$120,867
Estimated Project Cost				\$121,000



Project ID:	CU9108
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Federation Drive and Winding Ridge Lane PIN - 0652 11 B Winding Ridge Phase 2 Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$28,905
Base Construction Cost				\$28,905
Mobilization (5%)				\$1,445
Subtotal 1				\$30,350
Contingency (25%)				\$7,588
Subtotal 2				\$37,938
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$17,072
Total				\$55,010
Estimated Project Cost				\$56,000



Project ID:	CU9109
Project Type:	Dry Pond Retrofit
Location:	Hoskins Hollow Circle PIN - 0652 01 0015 Singleton's Grove Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Upstream of large wet pond Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$37,680
Base Construction Cost				\$37,680
Mobilization (5%)				\$1,884
Subtotal 1				\$39,564
Contingency (25%)				\$9,891
Subtotal 2				\$49,455
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$22,255
Total				\$71,710
Estimated Project Cost				\$72,000



Project ID:	CU9110
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Old Centreville Road & Franklin Fox Drive PIN - 0652 05 A3 Singleton's Grove Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$34,296
Base Construction Cost				\$34,296
Mobilization (5%)				\$1,715
Subtotal 1				\$36,011
Contingency (25%)				\$9,003
Subtotal 2				\$45,014
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$20,256
Total				\$65,270
Estimated Project Cost				\$66,000



Project ID:	CU9111
Project Type:	Dry Pond Retrofit
Location:	Old Centreville Road and Sunset Ridge Road PIN - 0652 04 A Sunset Ridge Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$34,107
Base Construction Cost				\$34,107
Mobilization (5%)				\$1,705
Subtotal 1				\$35,812
Contingency (25%)				\$8,953
Subtotal 2				\$44,765
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$20,144
Total				\$64,910
Estimated Project Cost				\$65,000



Project ID:	CU9112
Project Type:	Dry Pond Retrofit
Location:	Stonepath Circle PIN - 0543 15 A Woodgate Village Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate Public maintenance



Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$33,243
Base Construction Cost				\$33,243
Mobilization (5%)				\$1,662
Subtotal 1				\$34,905
Contingency (25%)				\$8,726
Subtotal 2				\$43,631
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,634
Total				\$63,266
Estimated Project Cost				\$64,000

Project ID:	CU9113
Project Type:	Dry Pond Retrofit
Location:	Havner House Way near I-66 and Route 29 interchange PIN - 0543 01 0008A Newgate Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$44,565
Base Construction Cost				\$44,565
Mobilization (5%)				\$2,228
Subtotal 1				\$46,793
Contingency (25%)				\$11,698
Subtotal 2				\$58,492
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$26,321
Total				\$84,813
Estimated Project Cost				\$85,000



Project ID:	CU9114
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Brookmoor Lane and Woodgate Manor Circle PIN - 0543 19 C Woodgate Manor Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$30,759
Base Construction Cost				\$30,759
Mobilization (5%)				\$1,538
Subtotal 1				\$32,297
Contingency (25%)				\$8,074
Subtotal 2				\$40,371
Engineering design, surveys, land acquisition, utility locations, and permits (45%)			\$18,167	
Total				\$58,538
Estimated Project Cost				\$59,000



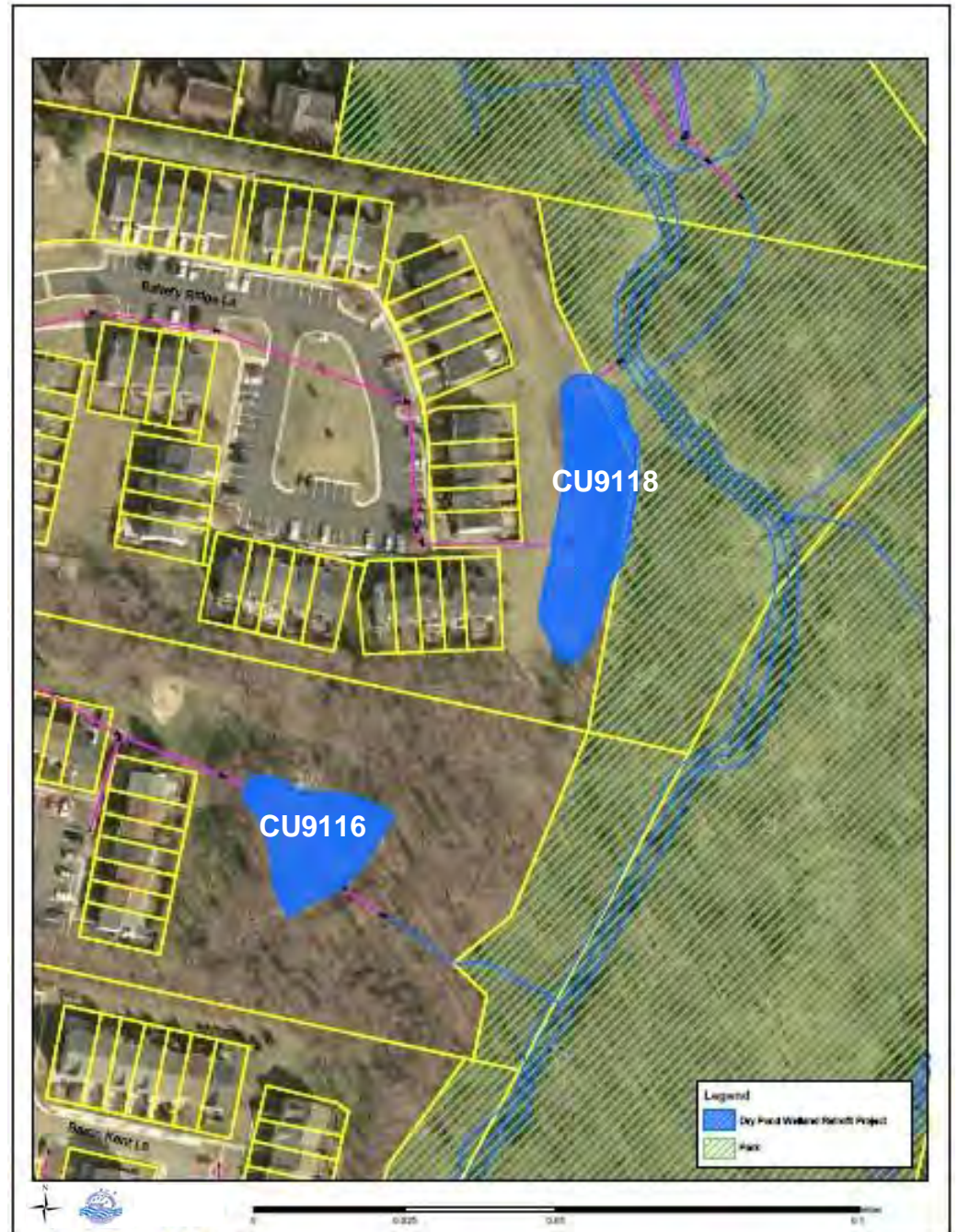
Project ID:	CU9115
Project Type:	Dry Pond Retrofit
Location:	Truro Parish Court PIN - 0543 10 L Newgate Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$28,842
Base Construction Cost				\$28,842
Mobilization (5%)				\$1,442
Subtotal 1				\$30,284
Contingency (25%)				\$7,571
Subtotal 2				\$37,855
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$17,035
Total				\$54,890
Estimated Project Cost				\$55,000



Project ID:	CU9116
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Olde Kent Road PIN - 0543 11 A London Commons Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$31,992
Base Construction Cost				\$31,992
Mobilization (5%)				\$1,600
Subtotal 1				\$33,592
Contingency (25%)				\$8,398
Subtotal 2				\$41,990
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$18,895
Total				\$60,885
Estimated Project Cost				\$61,000



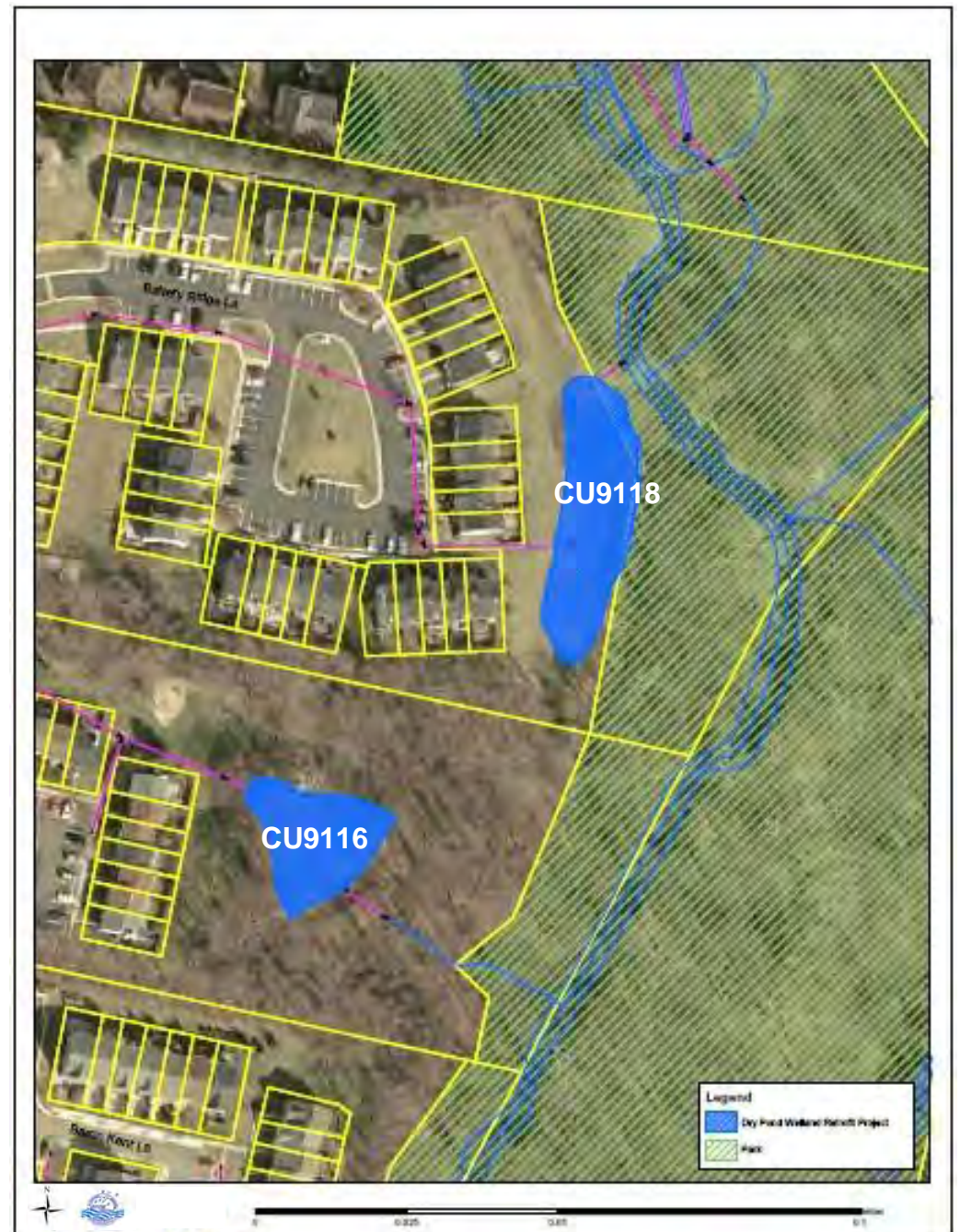
Project ID:	CU9117
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Between Grisby House Court and Black Horse Court PIN - 0543 10 C Newgate Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$31,335
Base Construction Cost				\$31,335
Mobilization (5%)				\$1,567
Subtotal 1				\$32,902
Contingency (25%)				\$8,225
Subtotal 2				\$41,127
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$18,507
Total				\$59,634
Estimated Project Cost				\$60,000



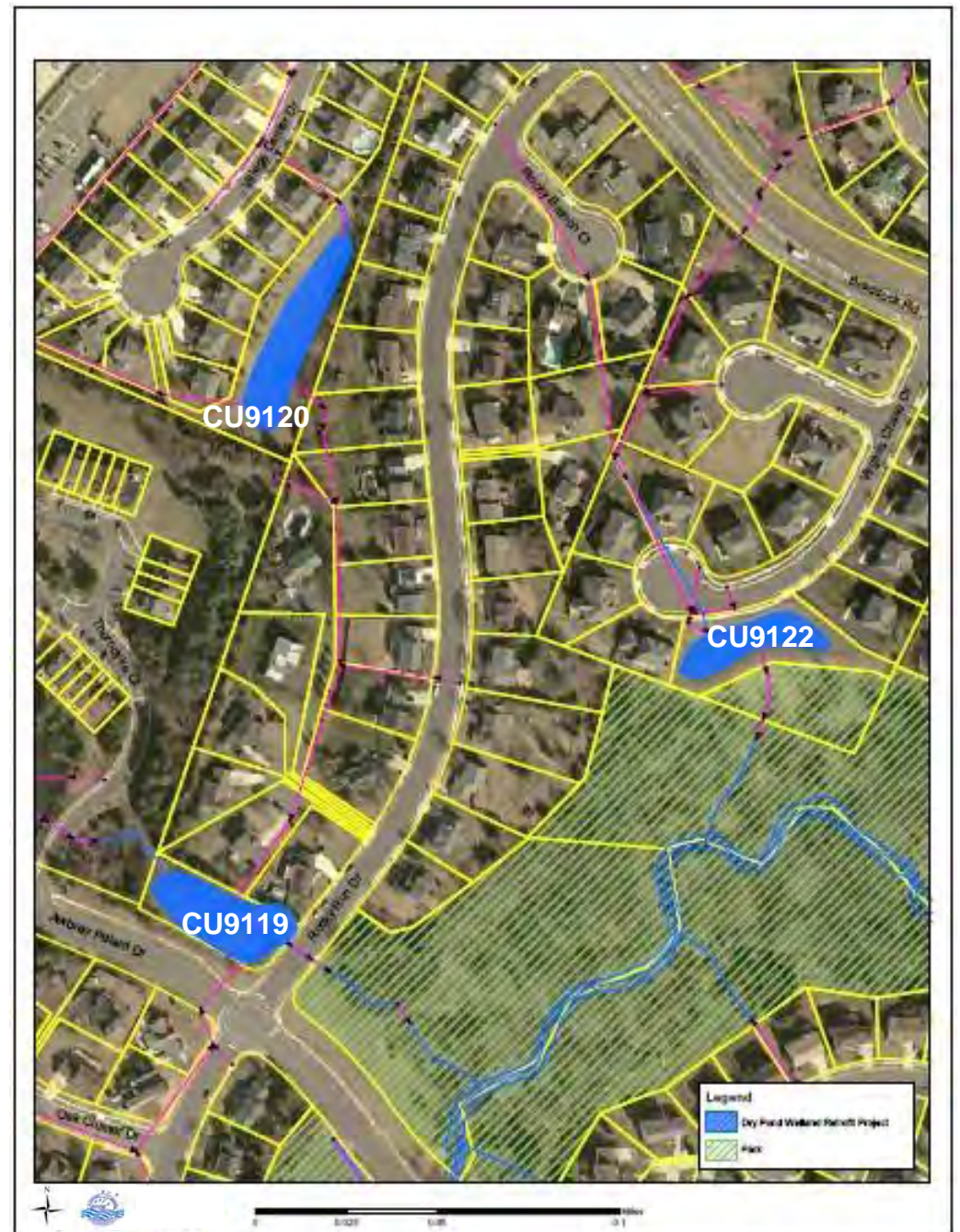
Project ID:	CU9118 – Low Priority
Project Type:	Dry Pond Retrofit
Location:	Battery Ridge Lane PIN - 0543 18 E Battery Ridge Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$36,735
Base Construction Cost				\$36,735
Mobilization (5%)				\$1,837
Subtotal 1				\$38,572
Contingency (25%)				\$9,643
Subtotal 2				\$48,215
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$21,697
Total				\$69,911
Estimated Project Cost				\$70,000



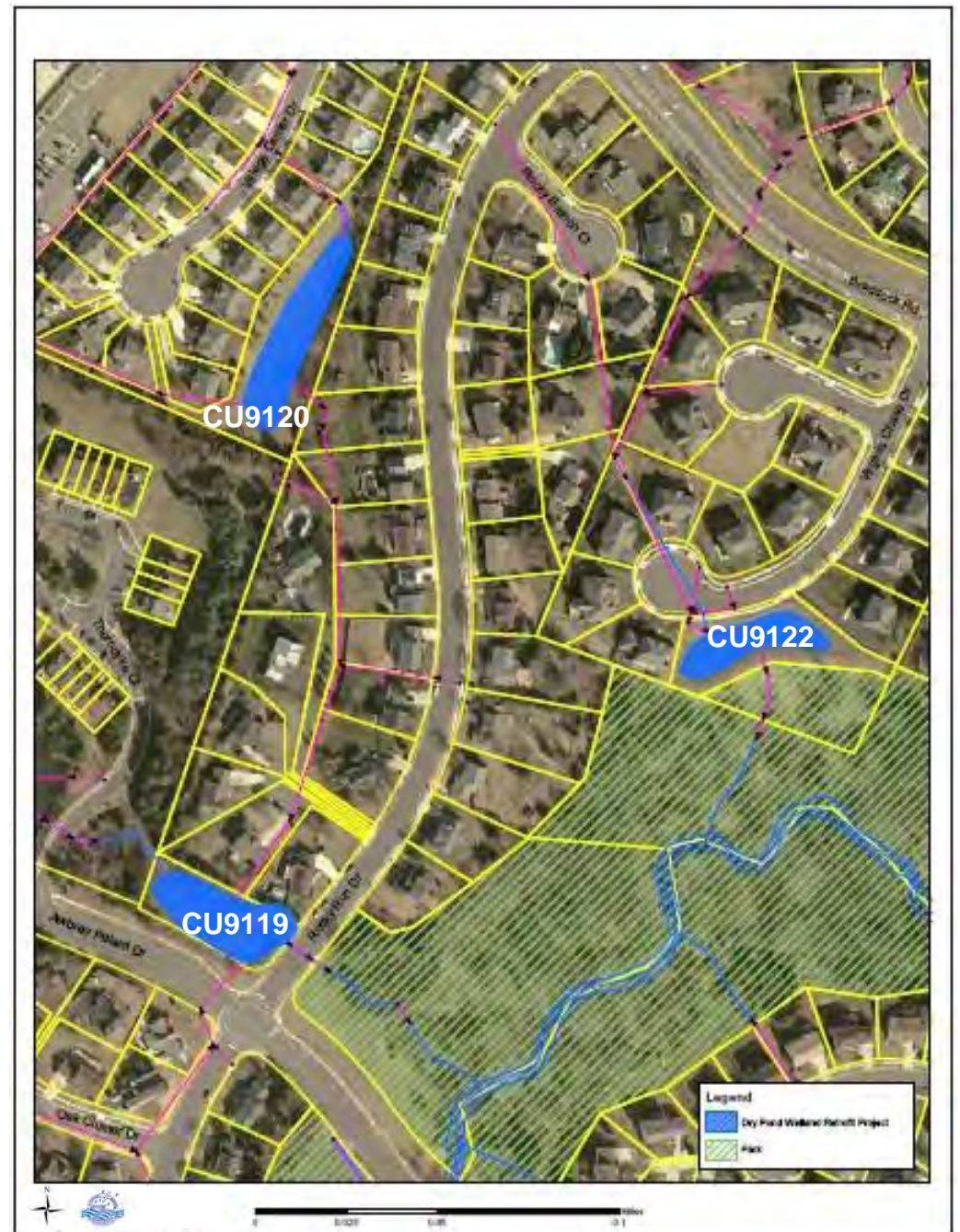
Project ID:	CU9119
Project Type:	Dry Pond Retrofit
Location:	Rocky Run Drive & Awbrey Patent Drive PIN - 0541 07 A Rocky Run Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$43,440
Base Construction Cost				\$43,440
Mobilization (5%)				\$2,172
Subtotal 1				\$45,612
Contingency (25%)				\$11,403
Subtotal 2				\$57,015
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$25,657
Total				\$82,672
Estimated Project Cost				\$83,000



Project ID:	CU9120
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Village Center Drive PIN - 0541 1706 H Sully Station Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$39,210
Base Construction Cost				\$39,210
Mobilization (5%)				\$1,961
Subtotal 1				\$41,171
Contingency (25%)				\$10,293
Subtotal 2				\$51,463
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$23,158
Total				\$74,622
Estimated Project Cost				\$75,000



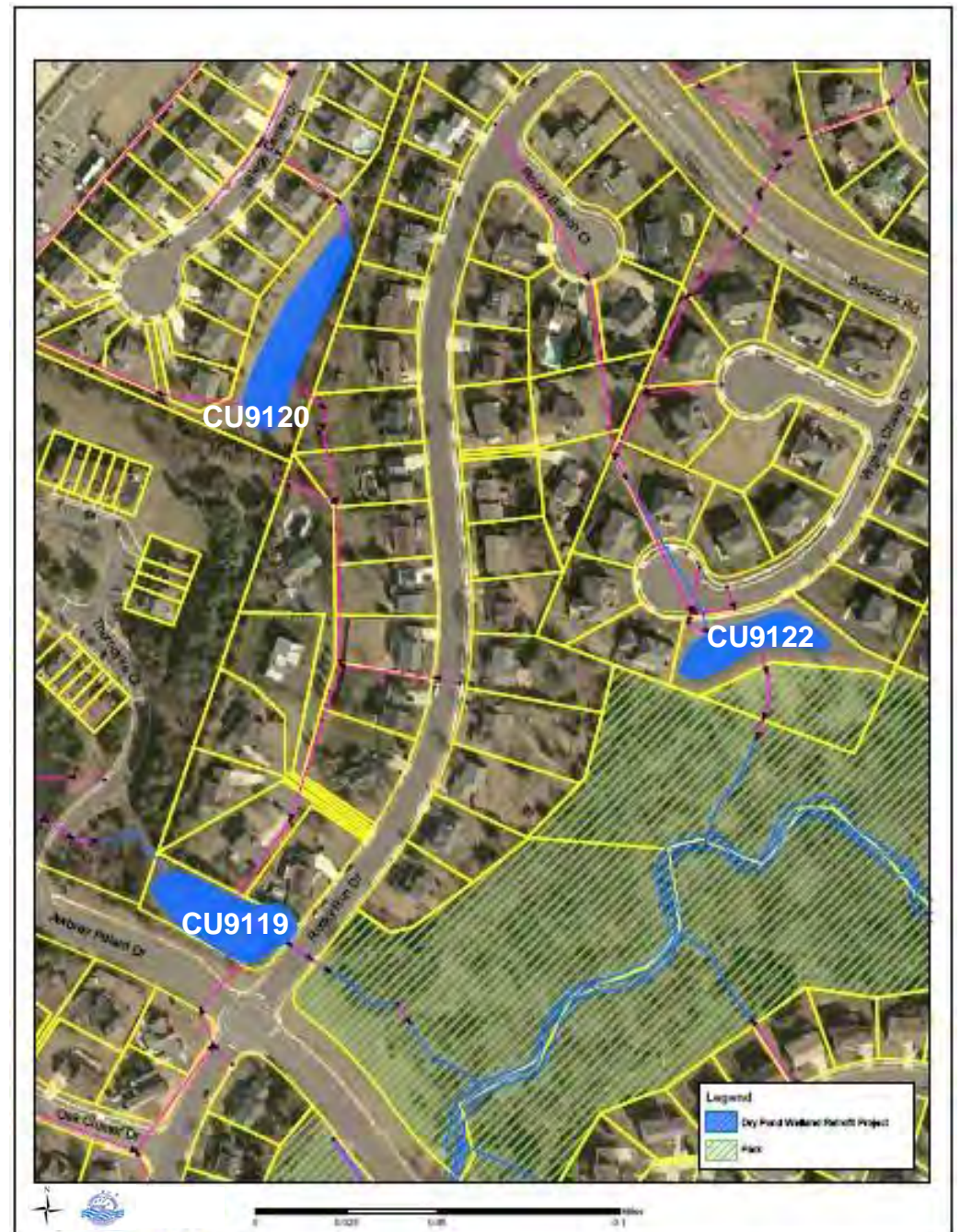
Project ID:	CU9121
Project Type:	Dry Pond Retrofit
Location:	Braddock Road & Village Center Drive PIN - 0541 1706 I Sully Station Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$29,220
Base Construction Cost				\$29,220
Mobilization (5%)				\$1,461
Subtotal 1				\$30,681
Contingency (25%)				\$7,670
Subtotal 2				\$38,351
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$17,258
Total				\$55,609
Estimated Project Cost				\$56,000



Project ID:	CU9122
Project Type:	Dry Pond Retrofit
Location:	Virginia Chase Drive PIN - 0541 19 A Virginia Chase Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$45,771
Base Construction Cost				\$45,771
Mobilization (5%)				\$2,289
Subtotal 1				\$48,060
Contingency (25%)				\$12,015
Subtotal 2				\$60,074
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$27,033
Total				\$87,108
Estimated Project Cost				\$88,000



Project ID:	CU9123
Project Type:	Dry Pond Retrofit
Location:	Filly Court PIN - 0541 15 A Belle Pond Farm Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$39,624
Base Construction Cost				\$39,624
Mobilization (5%)				\$1,981
Subtotal 1				\$41,605
Contingency (25%)				\$10,401
Subtotal 2				\$52,007
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$23,403
Total				\$75,409
Estimated Project Cost				\$76,000



Project ID	CU9124
Project Type:	Dry Pond Retrofit
Location:	Route 28 Off ramp to I-66, Pickwick Road PIN – N/A Highway Right of Way Willoughbys Ridge Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$46,770
Base Construction Cost				\$46,770
Mobilization (5%)				\$2,339
Subtotal 1				\$49,109
Contingency (25%)				\$12,277
Subtotal 2				\$61,386
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$27,624
Total				\$89,009
Estimated Project Cost				\$90,000



Project ID:	CU9125
Project Type:	Dry Pond Retrofit
Location:	Melton Place and Pickwick Road PIN - 0544 16 A Englewood Mews Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$78,081
Base Construction Cost				\$78,081
Mobilization (5%)				\$3,904
Subtotal 1				\$81,985
Contingency (25%)				\$20,496
Subtotal 2				\$102,481
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$46,117
Total				\$148,598
Estimated Project Cost				\$149,000



Project ID:	CU9126
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Pickwick Road near Wharton Lane and Newhall Court PIN - 0544 14 A1 Walney Glen Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$31,902
Base Construction Cost				\$31,902
Mobilization (5%)				\$1,595
Subtotal 1				\$33,497
Contingency (25%)				\$8,374
Subtotal 2				\$41,871
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$18,842
Total				\$60,713
Estimated Project Cost				\$61,000



Project ID:	CU9127
Project Type:	Dry Pond Retrofit
Location:	Cabells Mill Drive and Ashcomb Court PIN - 0542 04 B Cabell's Mill Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$48,039
Base Construction Cost				\$48,039
Mobilization (5%)				\$2,402
Subtotal 1				\$50,441
Contingency (25%)				\$12,610
Subtotal 2				\$63,051
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$28,373
Total				\$91,424
Estimated Project Cost				\$92,000



Project ID:	CU9128
Project Type:	Dry Pond Retrofit
Location:	Rushbrook Drive & Nanticoke Drive PIN - 0542 04 C Cabell's Mill Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$47,193
Base Construction Cost				\$47,193
Mobilization (5%)				\$2,360
Subtotal 1				\$49,553
Contingency (25%)				\$12,388
Subtotal 2				\$61,941
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$27,873
Total				\$89,814
Estimated Project Cost				\$90,000



Project ID:	CU9129
Project Type:	Dry Pond Retrofit – Low Priority
Location:	High Grove Hills Lane PIN - 0542 06 B Hawthorne Forest Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$31,272
Base Construction Cost				\$31,272
Mobilization (5%)				\$1,564
Subtotal 1				\$32,836
Contingency (25%)				\$8,209
Subtotal 2				\$41,045
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$18,470
Total				\$59,515
Estimated Project Cost				\$60,000



Project ID:	CU9130
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Fernbrook Court PIN - 0542 10 B Fox Meadow Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$72,600
Base Construction Cost				\$72,600
Mobilization (5%)				\$3,630
Subtotal 1				\$76,230
Contingency (25%)				\$19,058
Subtotal 2				\$95,288
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$42,879
Total				\$138,167
Estimated Project Cost				\$139,000



Project ID:	CU9131
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Doyle Lane & Selby Bay Court. Regional Pond C30 PIN – 0551 15 A Big Rocky Forest
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$186,531
Base Construction Cost				\$186,531
Mobilization (5%)				\$9,327
Subtotal 1				\$195,858
Contingency (25%)				\$48,964
Subtotal 2				\$244,822
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$110,170
Total				\$354,992
Estimated Project Cost				\$355,000



Project ID:	CU9132
Project Type:	Dry Pond Retrofit
Location:	Poplar Tree Park, Melville Land and Marble Rock Drive PIN - 0551 09 U Poplar Tree Estates Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$309,327
Base Construction Cost				\$309,327
Mobilization (5%)				\$15,466
Subtotal 1				\$324,793
Contingency (25%)				\$81,198
Subtotal 2				\$405,992
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$182,696
Total				\$588,688
Estimated Project Cost				\$589,000



Project ID:	CU9133
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Sutton Oaks Drive near Sutton Woods Court PIN - 0444 04 C Sutton Oaks Section 1 Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$32,487
Base Construction Cost				\$32,487
Mobilization (5%)				\$1,624
Subtotal 1				\$34,111
Contingency (25%)				\$8,528
Subtotal 2				\$42,639
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,188
Total				\$61,827
Estimated Project Cost				\$62,000



Project ID:	CU9134
Project Type:	Dry Pond Retrofit
Location:	Point Pleasant Drive and Hazelnut Court PIN - 0453 03 D Poplar Tree Estates Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$94,956
Base Construction Cost				\$94,956
Mobilization (5%)				\$4,748
Subtotal 1				\$99,704
Contingency (25%)				\$24,926
Subtotal 2				\$124,630
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$56,083
Total				\$180,713
Estimated Project Cost				\$181,000



Project ID:	CU9135
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Rocky Run Middle School South PIN - 0453 03 E Poplar Tree Estates Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$30,318
Base Construction Cost				\$30,318
Mobilization (5%)				\$1,516
Subtotal 1				\$31,834
Contingency (25%)				\$7,958
Subtotal 2				\$39,792
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$17,907
Total				\$57,699
Estimated Project Cost				\$58,000



Project ID:	CU9136
Project Type:	Dry Pond Retrofit
Location:	Britwell Place and Maureen Lane PIN - 0452 09 A Gene P. Mitchell Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$32,613
Base Construction Cost				\$32,613
Mobilization (5%)				\$1,631
Subtotal 1				\$34,244
Contingency (25%)				\$8,561
Subtotal 2				\$42,805
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,262
Total				\$62,067
Estimated Project Cost				\$63,000



Project ID:	CU9137
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Near King of Kings Lutheran Church, Kings Way PIN - 0454 09 A2 Birch Pond Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$62,349
Base Construction Cost				\$62,349
Mobilization (5%)				\$3,117
Subtotal 1				\$65,466
Contingency (25%)				\$16,367
Subtotal 2				\$81,833
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$36,825
Total				\$118,658
Estimated Project Cost				\$119,000



Project ID:	CU9138
Project Type:	Dry Pond Retrofit
Location:	Tallow Tree Place PIN - 0452 07 C Fair Wood Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$44,727
Base Construction Cost				\$44,727
Mobilization (5%)				\$2,236
Subtotal 1				\$46,963
Contingency (25%)				\$11,741
Subtotal 2				\$58,704
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$26,417
Total				\$85,121
Estimated Project Cost				\$86,000



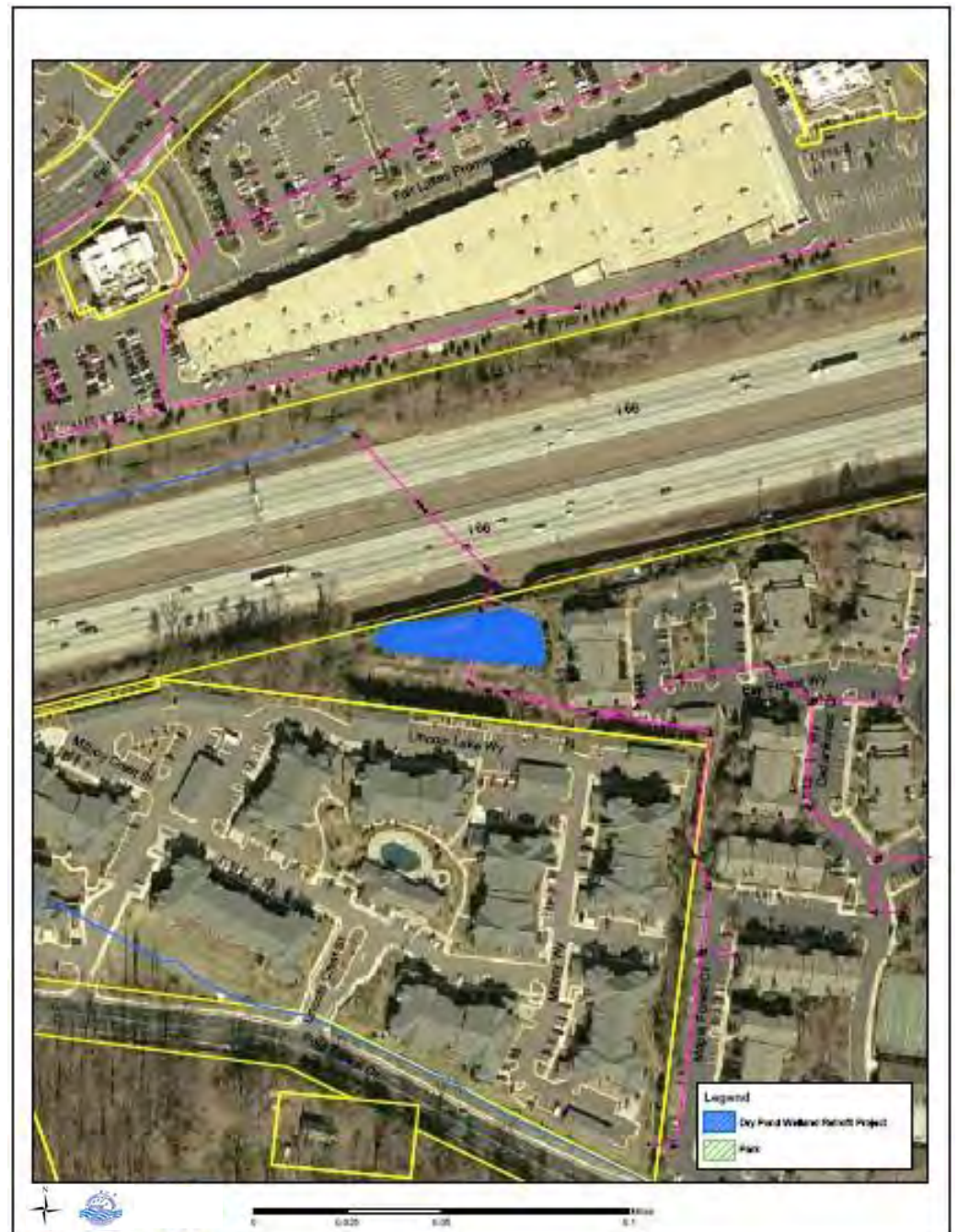
Project ID:	CU9139
Project Type:	Dry Pond Retrofit
Location:	Trumbo Court and Monument Drive PIN - 0454 14 A Fair Lakes Woods Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$30,093
Base Construction Cost				\$30,093
Mobilization (5%)				\$1,505
Subtotal 1				\$31,598
Contingency (25%)				\$7,899
Subtotal 2				\$39,497
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$17,774
Total				\$57,271
Estimated Project Cost				\$58,000



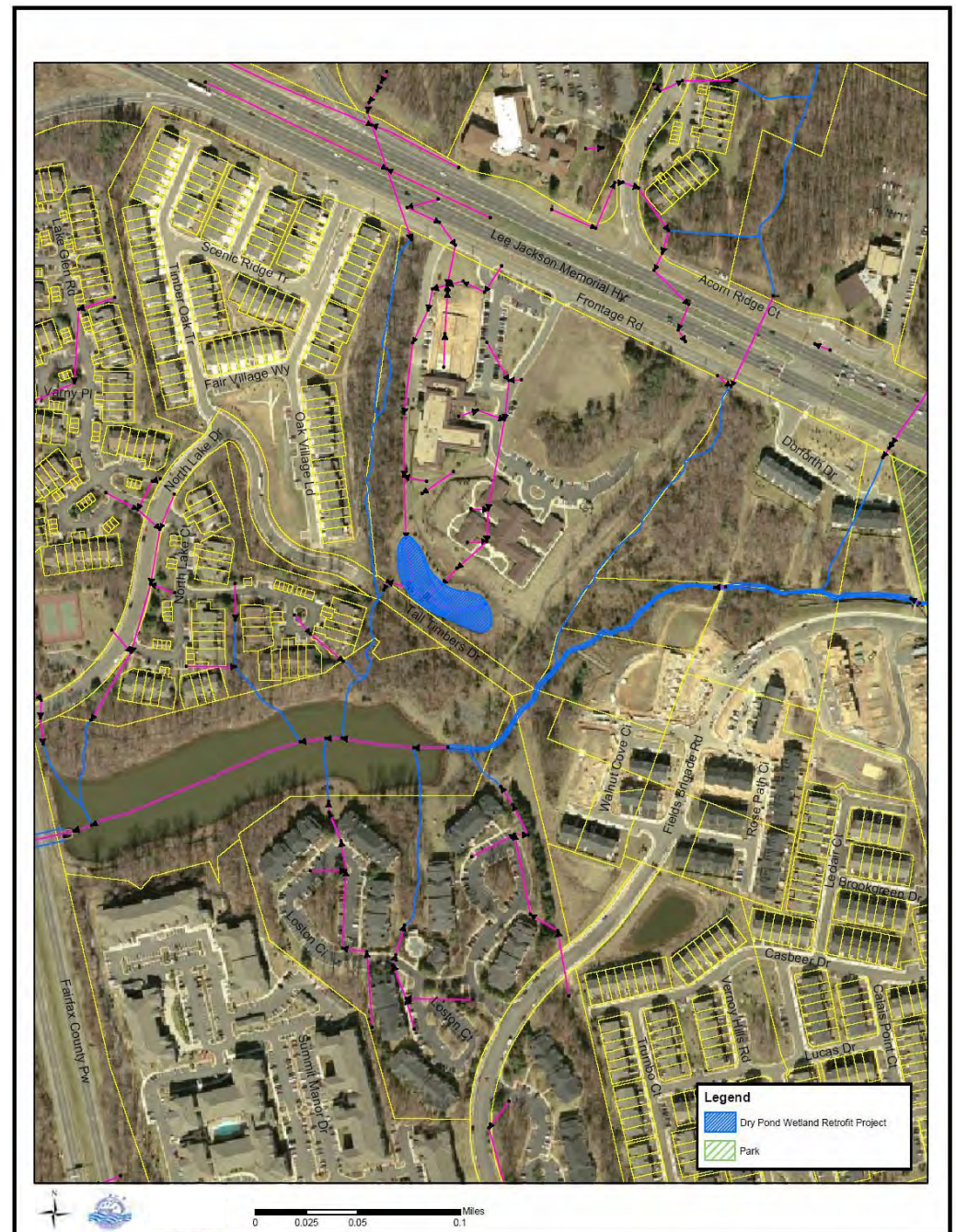
Project ID:	CU9140
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Elm Forest Way and Lincoln Lake Way PIN - 0561 01 0024A Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$42,432
Base Construction Cost				\$42,432
Mobilization (5%)				\$2,122
Subtotal 1				\$44,554
Contingency (25%)				\$11,138
Subtotal 2				\$55,692
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$25,061
Total				\$80,753
Estimated Project Cost				\$81,000



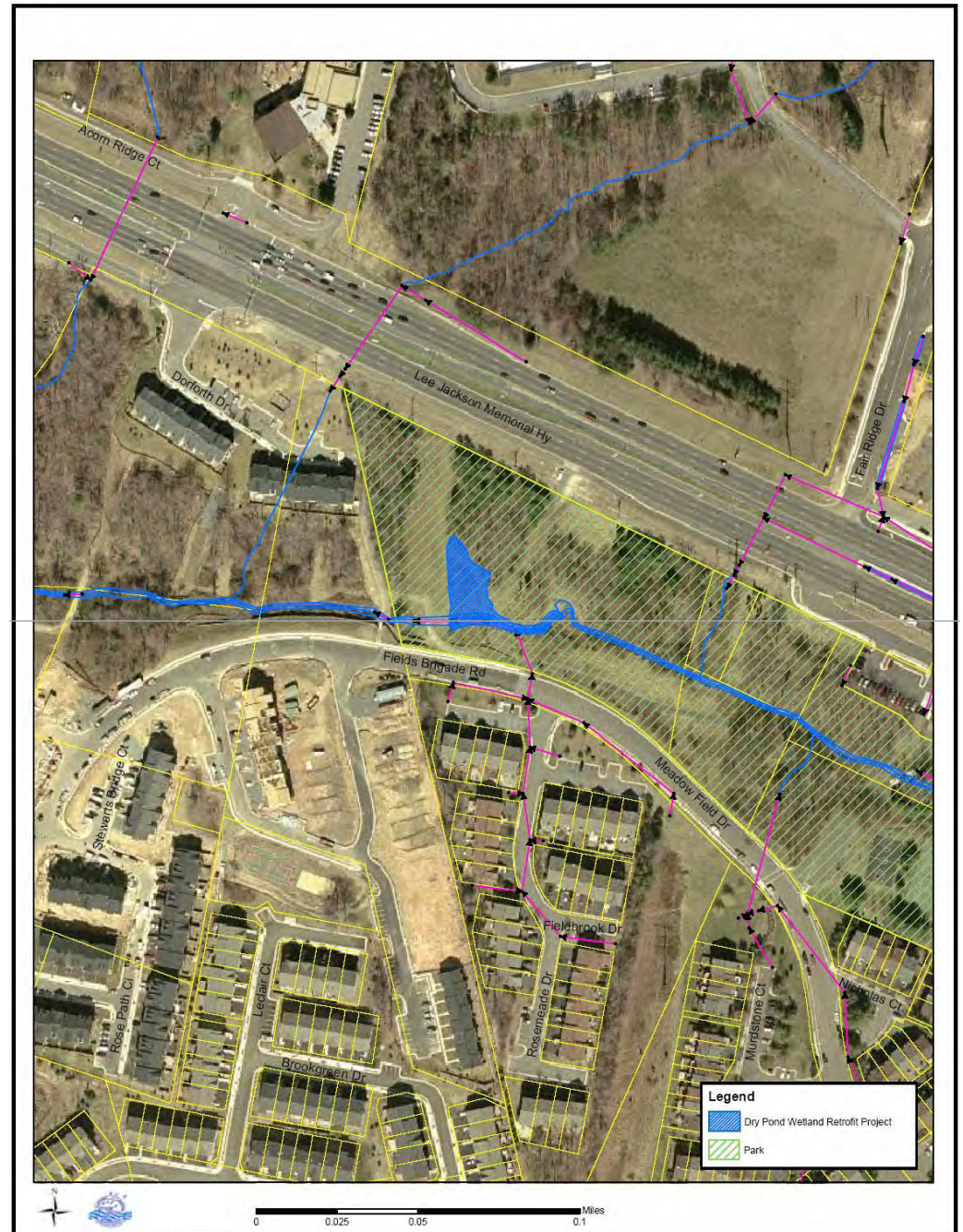
Project ID:	CU9141
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Timber Oak Trail and Hidden Glade Drive PIN - 0454 01 0006A Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Upstream from regional wet pond. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$32,145
Base Construction Cost				\$32,145
Mobilization (5%)				\$1,607
Subtotal 1				\$33,752
Contingency (25%)				\$8,438
Subtotal 2				\$42,190
Engineering design, surveys, land acquisition, utility locations, and permits (45%)			\$18,986	
Total				\$61,176
Estimated Project Cost				\$62,000



Project ID:	CU9142
Project Type:	Dry Pond Retrofit
Location:	Fair Ridge Park, Meadow Field Drive PIN - 0463 20 A RA Addition to Fair Ridge Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$64,104
Base Construction Cost				\$64,104
Mobilization (5%)				\$3,205
Subtotal 1				\$67,309
Contingency (25%)				\$16,827
Subtotal 2				\$84,137
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$37,861
Total				\$121,998
Estimated Project Cost				\$122,000



Project ID:	CU9143
Project Type:	Dry Pond Retrofit
Location:	Fair Ridge Park Rt. 50 and Fair Ridge Drive PIN - 0463 10 0001R Fair Ridge Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$84,363
Base Construction Cost				\$84,363
Mobilization (5%)				\$4,218
Subtotal 1				\$88,581
Contingency (25%)				\$22,145
Subtotal 2				\$110,726
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$49,827
Total				\$160,553
Estimated Project Cost				\$161,000



Project ID:	CU9144
Project Type:	Dry Pond Retrofit
Location:	Route 50 and Fair Ridge Drive Fifty West Corporate Center PIN - 0463 17 0005 Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$36,330
Base Construction Cost				\$36,330
Mobilization (5%)				\$1,817
Subtotal 1				\$38,147
Contingency (25%)				\$9,537
Subtotal 2				\$47,683
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$21,457
Total				\$69,141
Estimated Project Cost				\$70,000



Project ID:	CU9145
Project Type:	Dry Pond Retrofit
Location:	Fair Ridge Drive and Fairleaf Court PIN - 0463 01 0015 Penderbrook Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Evaluate options to increase storage to reduce peak flows and erosion in downstream segments. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$56,292
Base Construction Cost				\$56,292
Mobilization (5%)				\$2,815
Subtotal 1				\$59,107
Contingency (25%)				\$14,777
Subtotal 2				\$73,883
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$33,247
Total				\$107,131
Estimated Project Cost				\$108,000



Project ID:	CU9146
Project Type:	Dry Pond Retrofit
Location:	Sweet Leaf Terrace and Fairleaf Court PIN - 0452 07 H Fair Woods Big Rocky Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Evaluate options to increase storage to reduce peak flows and erosion in downstream segments. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$39,273
Base Construction Cost				\$39,273
Mobilization (5%)				\$1,964
Subtotal 1				\$41,237
Contingency (25%)				\$10,309
Subtotal 2				\$51,546
Engineering design, surveys, land acquisition, utility locations, and permits (45%)			\$23,196	
Total				\$74,741
Estimated Project Cost				\$75,000



Project ID:	CU9148
Project Type:	Dry Pond Retrofit
Location:	Prince Way PIN - 0534 06 C London Towne West Middle Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$39,066
Base Construction Cost				\$39,066
Mobilization (5%)				\$1,953
Subtotal 1				\$41,019
Contingency (25%)				\$10,255
Subtotal 2				\$51,274
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$23,073
Total				\$74,347
Estimated Project Cost				\$75,000



Project ID:	CU9149
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Stratton Major Court, Wetherburn Drive PIN - 0534 08 J Westport Middle Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$32,613
Base Construction Cost				\$32,613
Mobilization (5%)				\$1,631
Subtotal 1				\$34,244
Contingency (25%)				\$8,561
Subtotal 2				\$42,805
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,262
Total				\$62,067
Estimated Project Cost				\$63,000



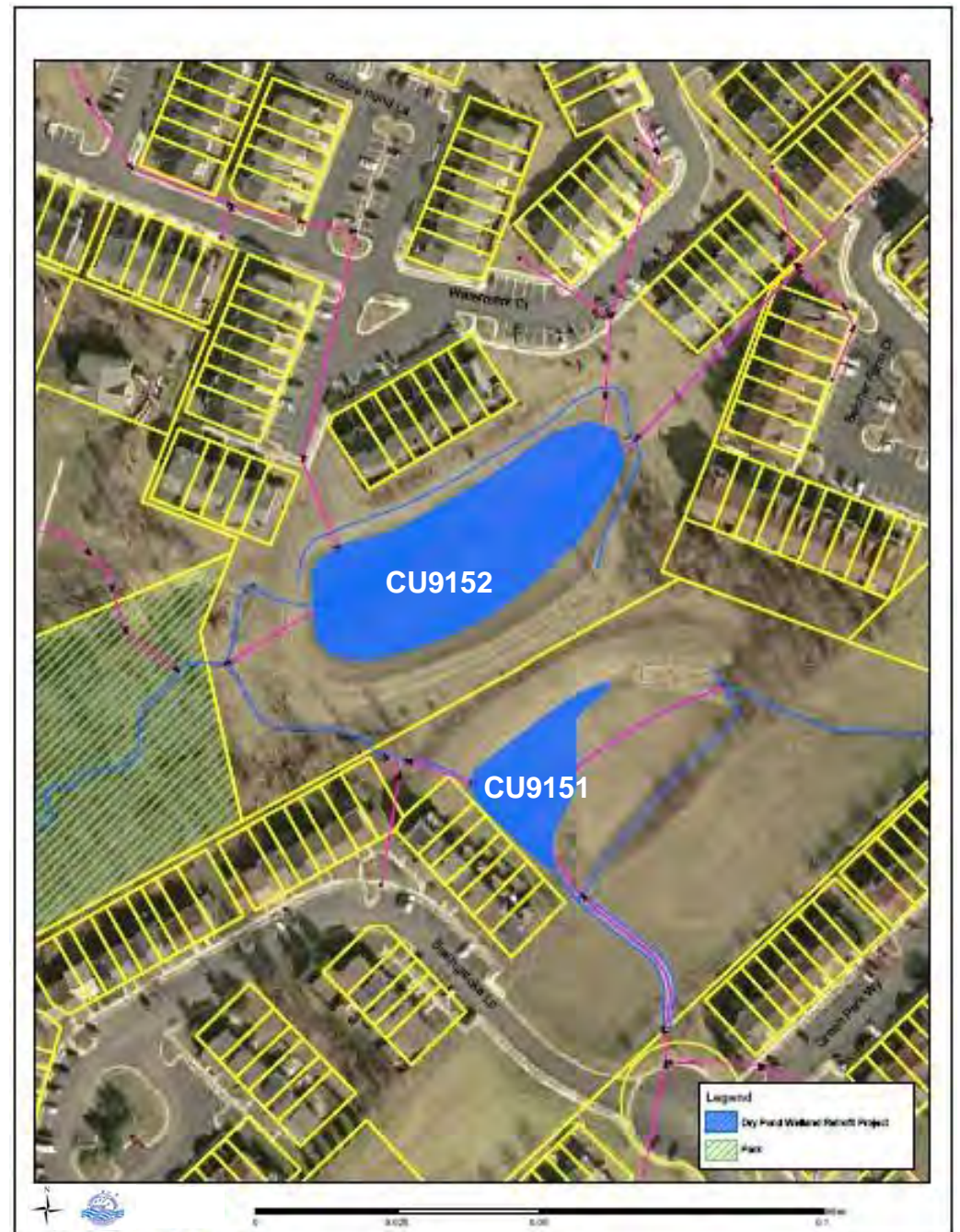
Project ID:	CU9150
Project Type:	Dry Pond Retrofit
Location:	Lee Forest Path & Stillfield PIN - 0534 08 P Westport Middle Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$61,116
Base Construction Cost				\$61,116
Mobilization (5%)				\$3,056
Subtotal 1				\$64,172
Contingency (25%)				\$16,043
Subtotal 2				\$80,215
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$36,097
Total				\$116,311
Estimated Project Cost				\$117,000



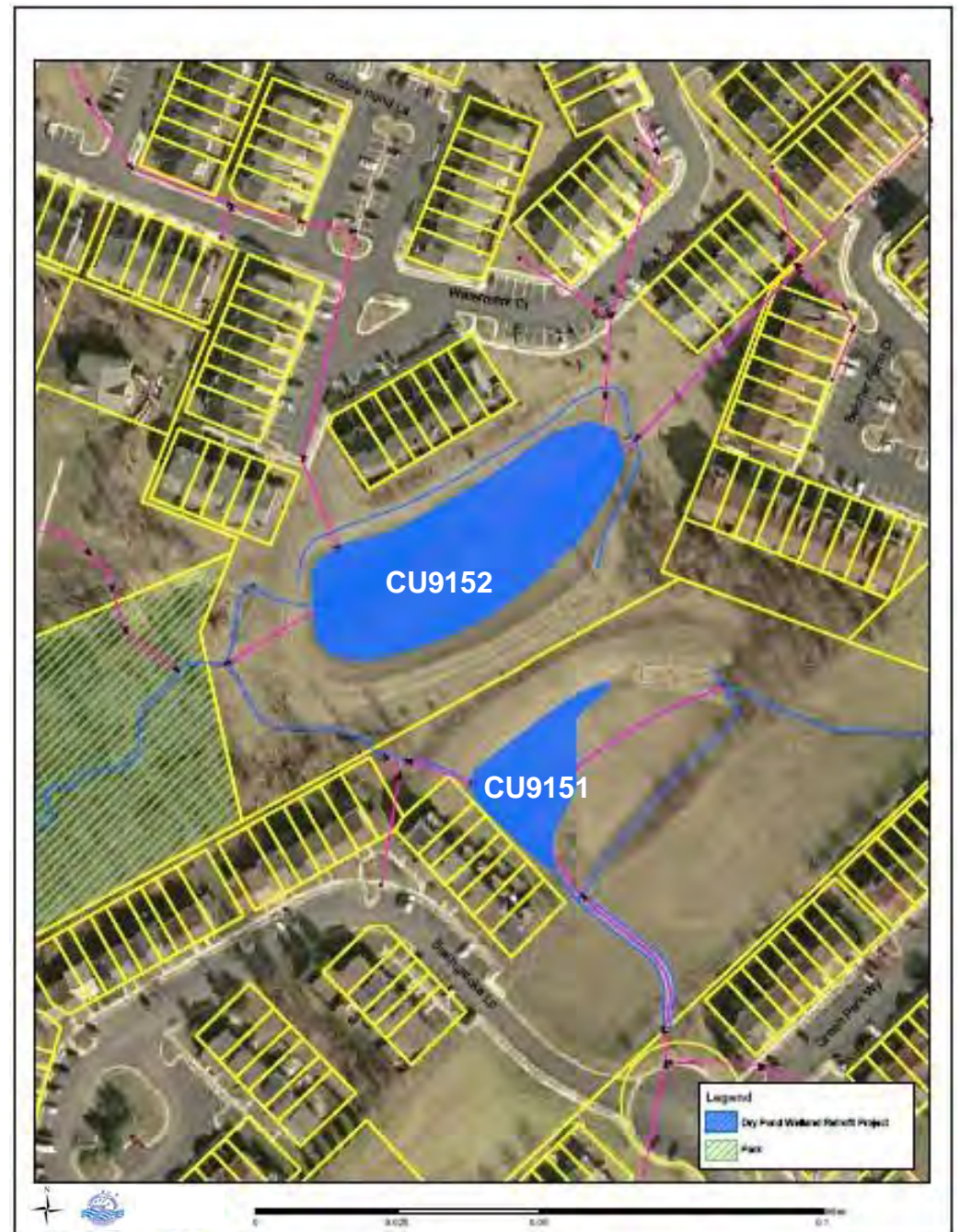
Project ID:	CU9151
Project Type:	Dry Pond Retrofit
Location:	Green Park Way, Basingstoke Loop Regional pond C22 PIN - 0543 13 F London Towne Middle Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$59,604
Base Construction Cost				\$59,604
Mobilization (5%)				\$2,980
Subtotal 1				\$62,584
Contingency (25%)				\$15,646
Subtotal 2				\$78,230
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$35,204
Total				\$113,434
Estimated Project Cost				\$114,000



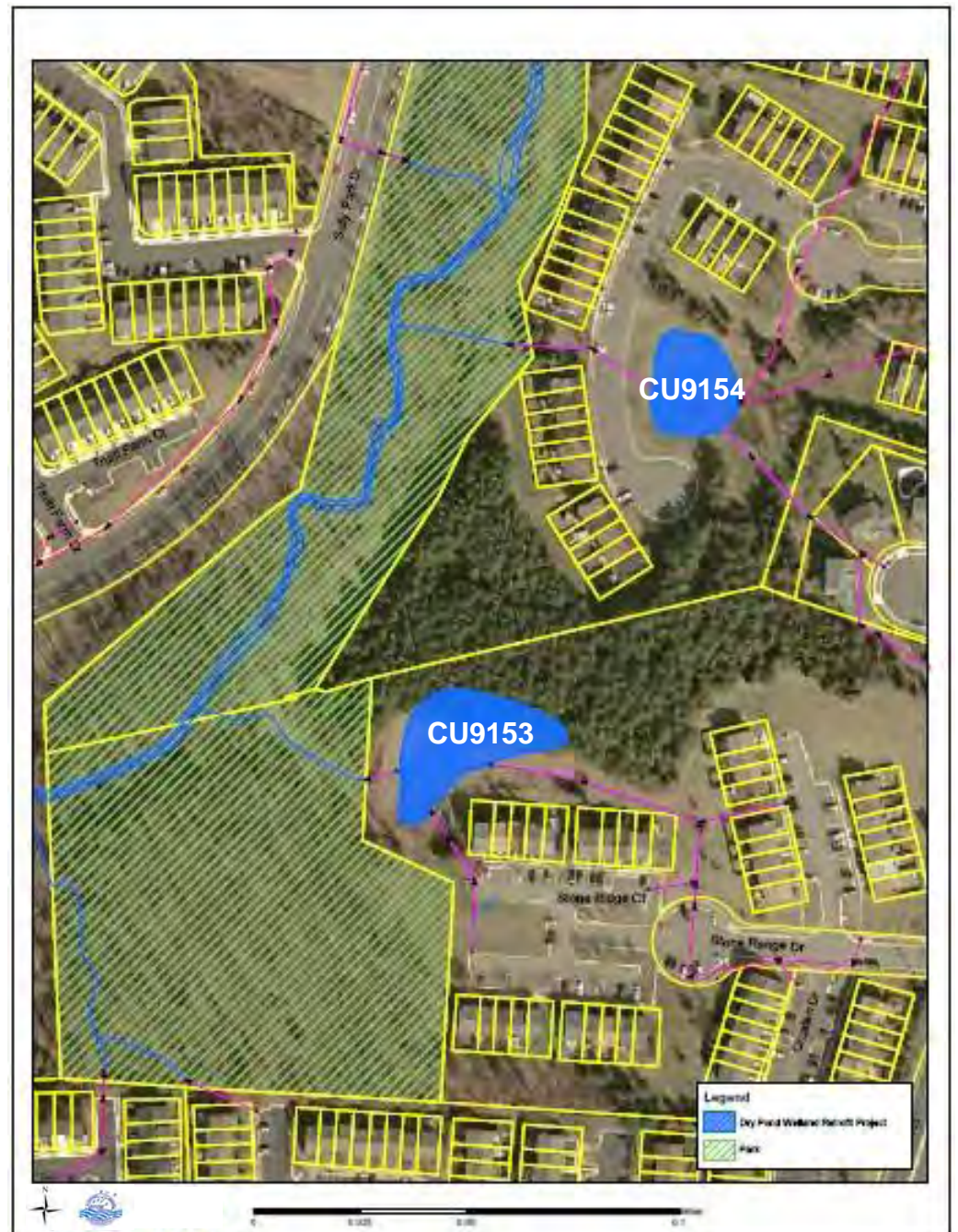
Project ID:	CU9152
Project Type:	Dry Pond Retrofit
Location:	Grobie Pond Lane and Watermark Circle Regional pond C22 PIN - 0532 0614 A Sully Station Middle Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$79,755
Base Construction Cost				\$79,755
Mobilization (5%)				\$3,988
Subtotal 1				\$83,743
Contingency (25%)				\$20,936
Subtotal 2				\$104,678
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$47,105
Total				\$151,784
Estimated Project Cost				\$152,000



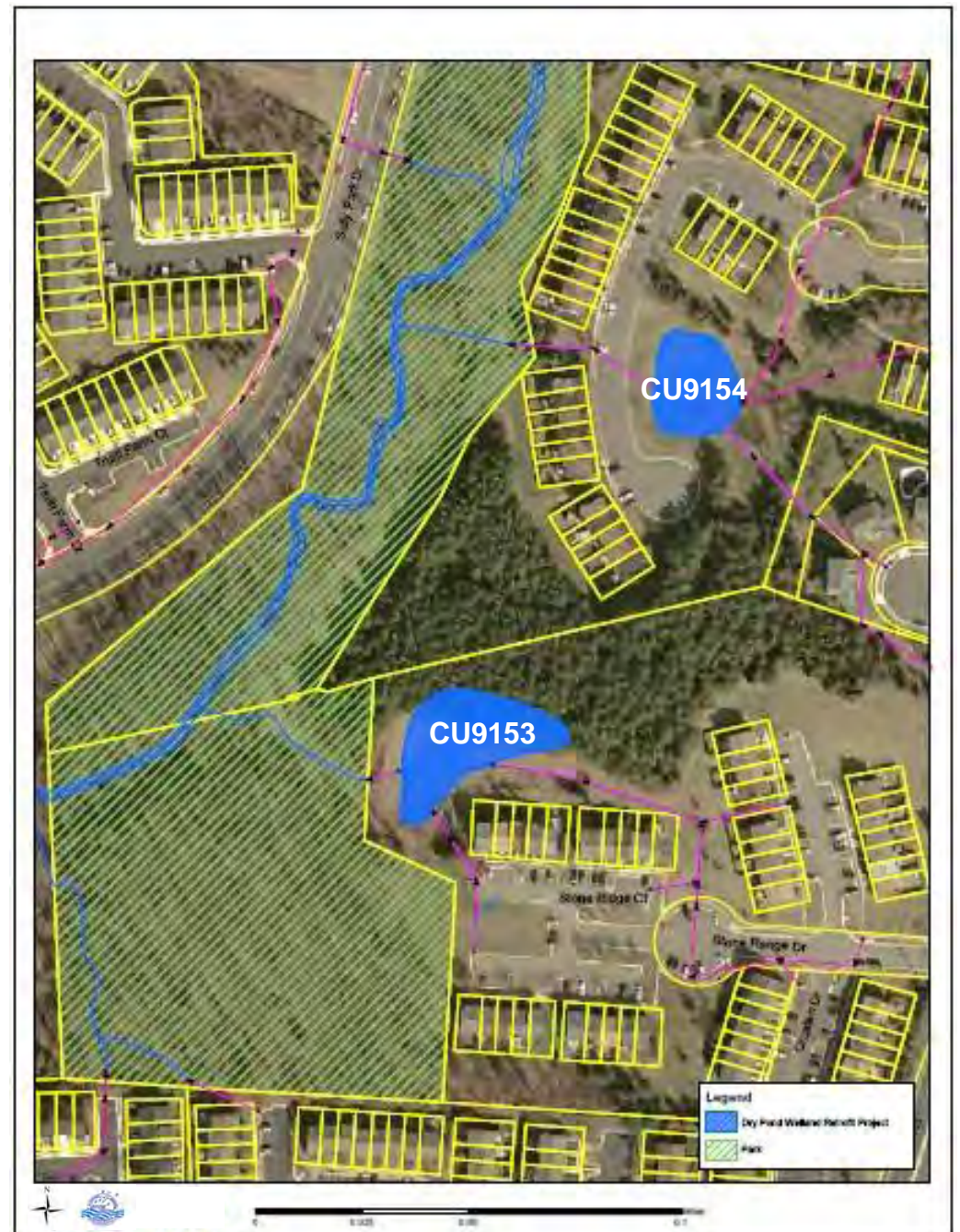
Project ID:	CU9153
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Stone Range Drive PIN - 0541 16 A Stonehenge Round Lick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$31,830
Base Construction Cost				\$31,830
Mobilization (5%)				\$1,592
Subtotal 1				\$33,422
Contingency (25%)				\$8,355
Subtotal 2				\$41,777
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$18,800
Total				\$60,576
Estimated Project Cost				\$61,000



Project ID:	CU9154
Project Type:	Dry Pond Retrofit
Location:	Stone Crossing Court PIN - 0541 12 B Stone Crossing Round Lick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$37,500
Base Construction Cost				\$37,500
Mobilization (5%)				\$1,875
Subtotal 1				\$39,375
Contingency (25%)				\$9,844
Subtotal 2				\$49,219
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$22,148
Total				\$71,367
Estimated Project Cost				\$72,000



Project ID:	CU9155
Project Type:	Dry Pond Retrofit
Location:	Poplar Tree Road and Sully Park Dive PIN - 0541 101B B Xanadu Estates Round Lick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$36,663
Base Construction Cost				\$36,663
Mobilization (5%)				\$1,833
Subtotal 1				\$38,496
Contingency (25%)				\$9,624
Subtotal 2				\$48,120
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$21,654
Total				\$69,774
Estimated Project Cost				\$70,000



Project ID:	CU9156
Project Type:	Dry Pond Retrofit
Location:	Lock Drive @ Crenshaw Drive, Poplar Tree Road PIN - 0443 05 A Sully Station Round Lick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$37,005
Base Construction Cost				\$37,005
Mobilization (5%)				\$1,850
Subtotal 1				\$38,855
Contingency (25%)				\$9,714
Subtotal 2				\$48,569
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$21,856
Total				\$70,425
Estimated Project Cost				\$71,000



Project ID:	CU9157
Project Type:	Dry Pond Retrofit
Location:	Braywood Drive, Poplar Tree Road PIN - 0443 05 G Sully Station Round Lick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$55,419
Base Construction Cost				\$55,419
Mobilization (5%)				\$2,771
Subtotal 1				\$58,190
Contingency (25%)				\$14,547
Subtotal 2				\$72,737
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$32,732
Total				\$105,469
Estimated Project Cost				\$106,000



Project ID:	CU9158
Project Type:	Dry Pond Retrofit
Location:	Belle Plains Drive & Sequoia Farms Drive PIN - 0443 07 H Sully Station Round Lick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$38,382
Base Construction Cost				\$38,382
Mobilization (5%)				\$1,919
Subtotal 1				\$40,301
Contingency (25%)				\$10,075
Subtotal 2				\$50,376
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$22,669
Total				\$73,046
Estimated Project Cost				\$74,000



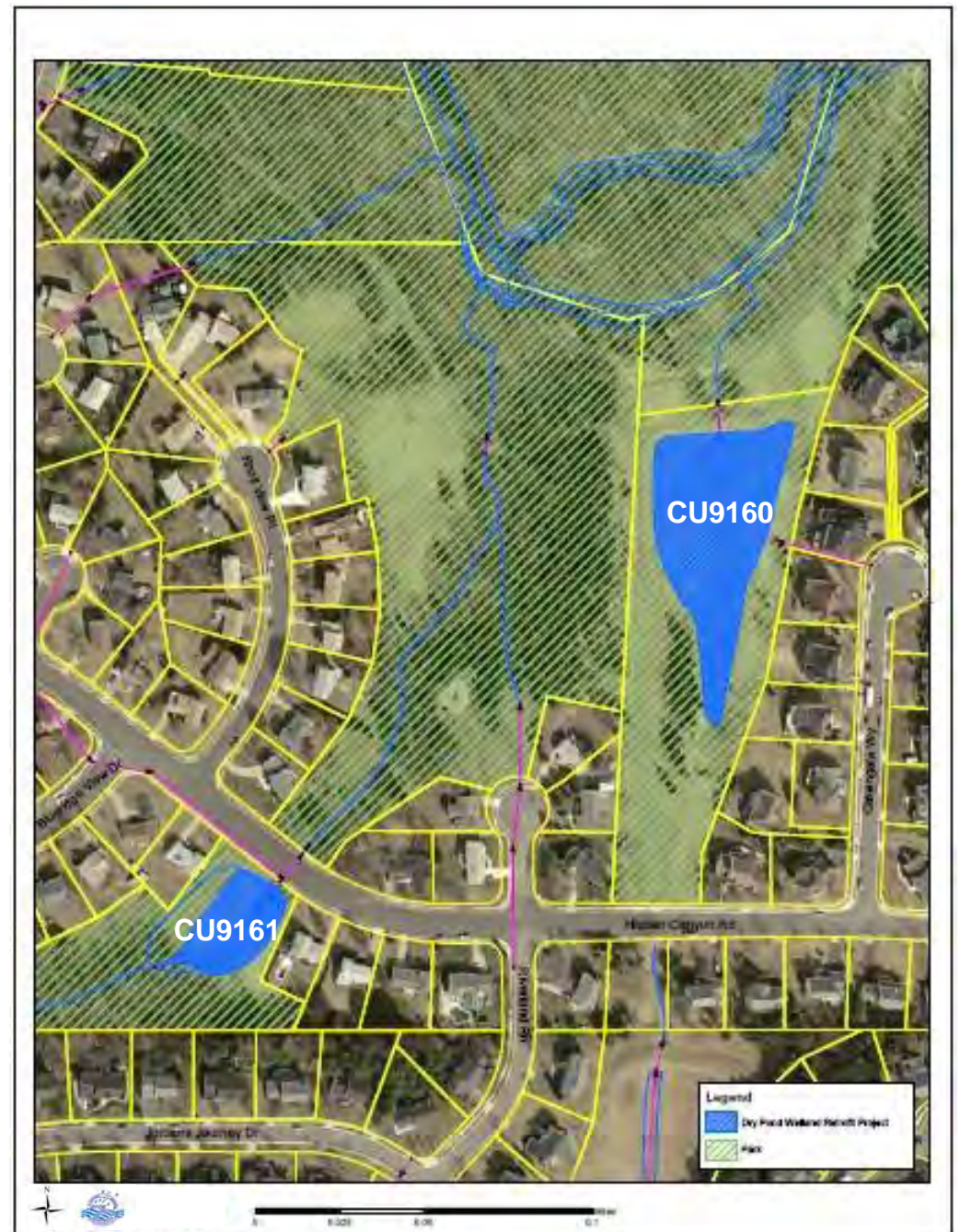
Project ID:	CU9159
Project Type:	Dry Pond Retrofit
Location:	Walney Road & Walney Park Drive PIN - 0444 08 0038 Poplar Park Section 1
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$86,829
Base Construction Cost				\$86,829
Mobilization (5%)				\$4,341
Subtotal 1				\$91,170
Contingency (25%)				\$22,793
Subtotal 2				\$113,963
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$51,283
Total				\$165,246
Estimated Project Cost				\$166,000



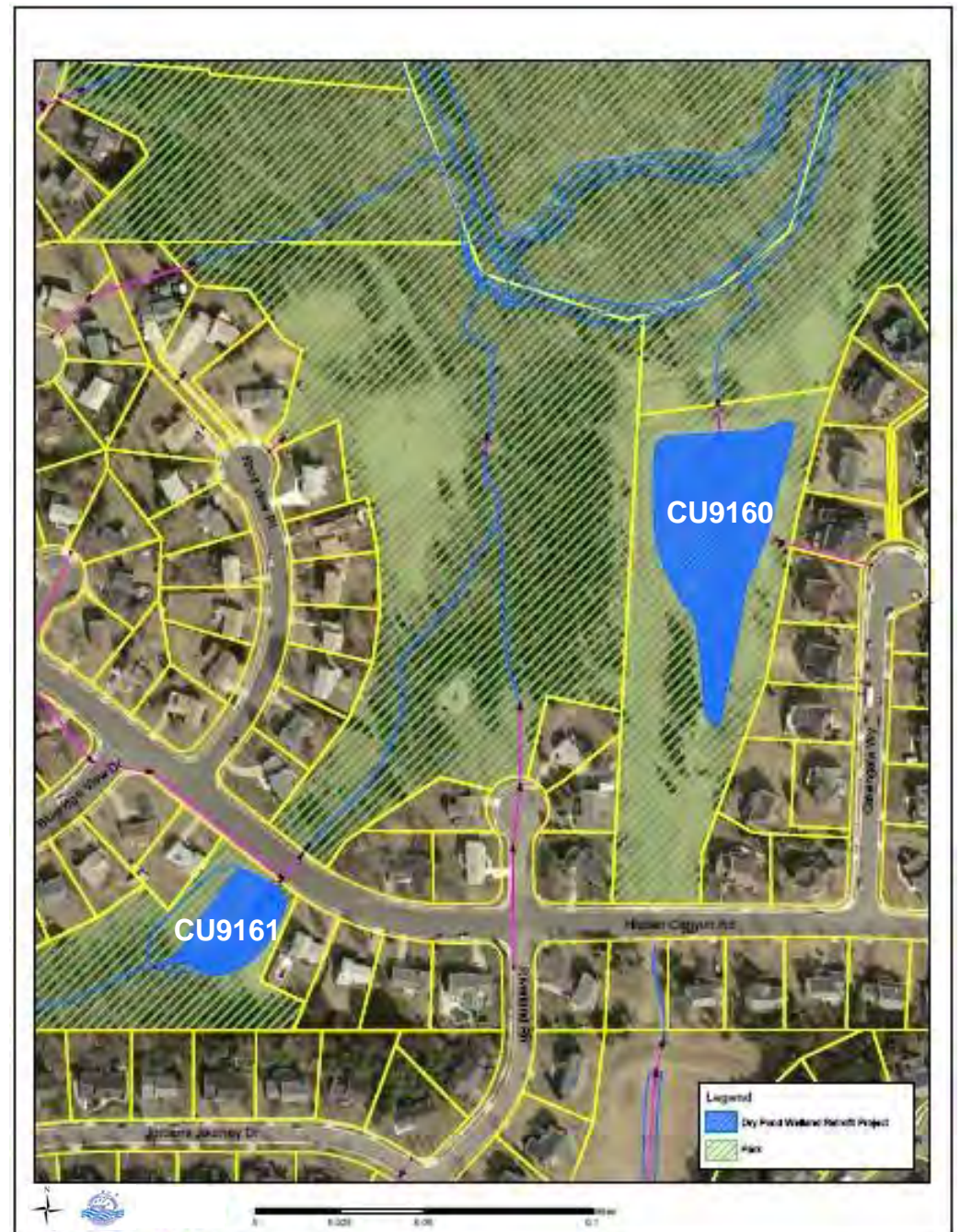
Project ID:	CU9160
Project Type:	Dry Pond Retrofit
Location:	Oakengate Way PIN - 0534 0502 C Pleasant Hill Middle Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$32,820
Base Construction Cost				\$32,820
Mobilization (5%)				\$1,641
Subtotal 1				\$34,461
Contingency (25%)				\$8,615
Subtotal 2				\$43,076
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,384
Total				\$62,461
Estimated Project Cost				\$63,000



Project ID:	CU9161
Project Type:	Dry Pond Retrofit
Location:	Hidden Canyon Road & Knoll View Place PIN - 0534 05 A Pleasant Hill Middle Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$34,764
Base Construction Cost				\$34,764
Mobilization (5%)				\$1,738
Subtotal 1				\$36,502
Contingency (25%)				\$9,126
Subtotal 2				\$45,628
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$20,532
Total				\$66,160
Estimated Project Cost				\$67,000



Project ID:	CU9162
Project Type:	Dry Pond Retrofit
Location:	Jordans Journey Drive, Blueridge View Drive PIN - 0533 05 A Westport Middle Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$91,239
Base Construction Cost				\$91,239
Mobilization (5%)				\$4,562
Subtotal 1				\$95,801
Contingency (25%)				\$23,950
Subtotal 2				\$119,751
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$53,888
Total				\$173,639
Estimated Project Cost				\$174,000



Project ID:	CU9163
Project Type:	Dry Pond Retrofit
Location:	Eagle Tavern Lane PIN - 0533 0401 A Weltman Estates Middle Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$66,210
Base Construction Cost				\$66,210
Mobilization (5%)				\$3,311
Subtotal 1				\$69,521
Contingency (25%)				\$17,380
Subtotal 2				\$86,901
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$39,105
Total				\$126,006
Estimated Project Cost				\$127,000



Project ID:	CU9164
Project Type:	Dry Pond Retrofit
Location:	Snowhill Lane PIN - 0532 0505 A2 Pleasant Hill Middle Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$126,366
Base Construction Cost				\$126,366
Mobilization (5%)				\$6,318
Subtotal 1				\$132,684
Contingency (25%)				\$33,171
Subtotal 2				\$165,855
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$74,635
Total				\$240,490
Estimated Project Cost				\$241,000



Project ID:	CU9165
Project Type:	Dry Pond Retrofit
Location:	Martins Hundred Drive PIN - 0531 04 0010A Virginia Run The Estates Middle Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$80,097
Base Construction Cost				\$80,097
Mobilization (5%)				\$4,005
Subtotal 1				\$84,102
Contingency (25%)				\$21,025
Subtotal 2				\$105,127
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$47,307
Total				\$152,435
Estimated Project Cost				\$153,000



Project ID:	CU9166
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Ridings Manor Place PIN - 0531 01 0014 Virginia Run, The Estates Middle Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public/Private maintenance Unknown

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$54,222
Base Construction Cost				\$54,222
Mobilization (5%)				\$2,711
Subtotal 1				\$56,933
Contingency (25%)				\$14,233
Subtotal 2				\$71,166
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$32,025
Total				\$103,191
Estimated Project Cost				\$104,000



Project ID:	CU9167
Project Type:	Dry Pond Retrofit
Location:	Parkstone Drive, Virginia DMV PIN - 0434 06 A Westfields International Center at Dulles Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$43,134
Base Construction Cost				\$43,134
Mobilization (5%)				\$2,157
Subtotal 1				\$45,291
Contingency (25%)				\$11,323
Subtotal 2				\$56,613
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$25,476
Total				\$82,089
Estimated Project Cost				\$83,000



Project ID:	CU9168
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Harvest Court & Stoney Branch Court PIN - 0434 05 F Sully Station Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$50,685
Base Construction Cost				\$50,685
Mobilization (5%)				\$2,534
Subtotal 1				\$53,219
Contingency (25%)				\$13,305
Subtotal 2				\$66,524
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$29,936
Total				\$96,460
Estimated Project Cost				\$97,000



Project ID:	CU9169
Project Type:	Dry Pond Retrofit
Location:	Westfields Boulevard & Stonecroft Boulevard PIN - 0443 04 Z Sully Station Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$96,621
Base Construction Cost				\$96,621
Mobilization (5%)				\$4,831
Subtotal 1				\$101,452
Contingency (25%)				\$25,363
Subtotal 2				\$126,815
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$57,067
Total				\$183,882
Estimated Project Cost				\$184,000



Project ID:	CU9170
Project Type:	Dry Pond Retrofit
Location:	Lee Road PIN - 0441 04 0041 Westfields International Center at Dulles Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$33,135
Base Construction Cost				\$33,135
Mobilization (5%)				\$1,657
Subtotal 1				\$34,792
Contingency (25%)				\$8,698
Subtotal 2				\$43,490
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,570
Total				\$63,060
Estimated Project Cost				\$64,000



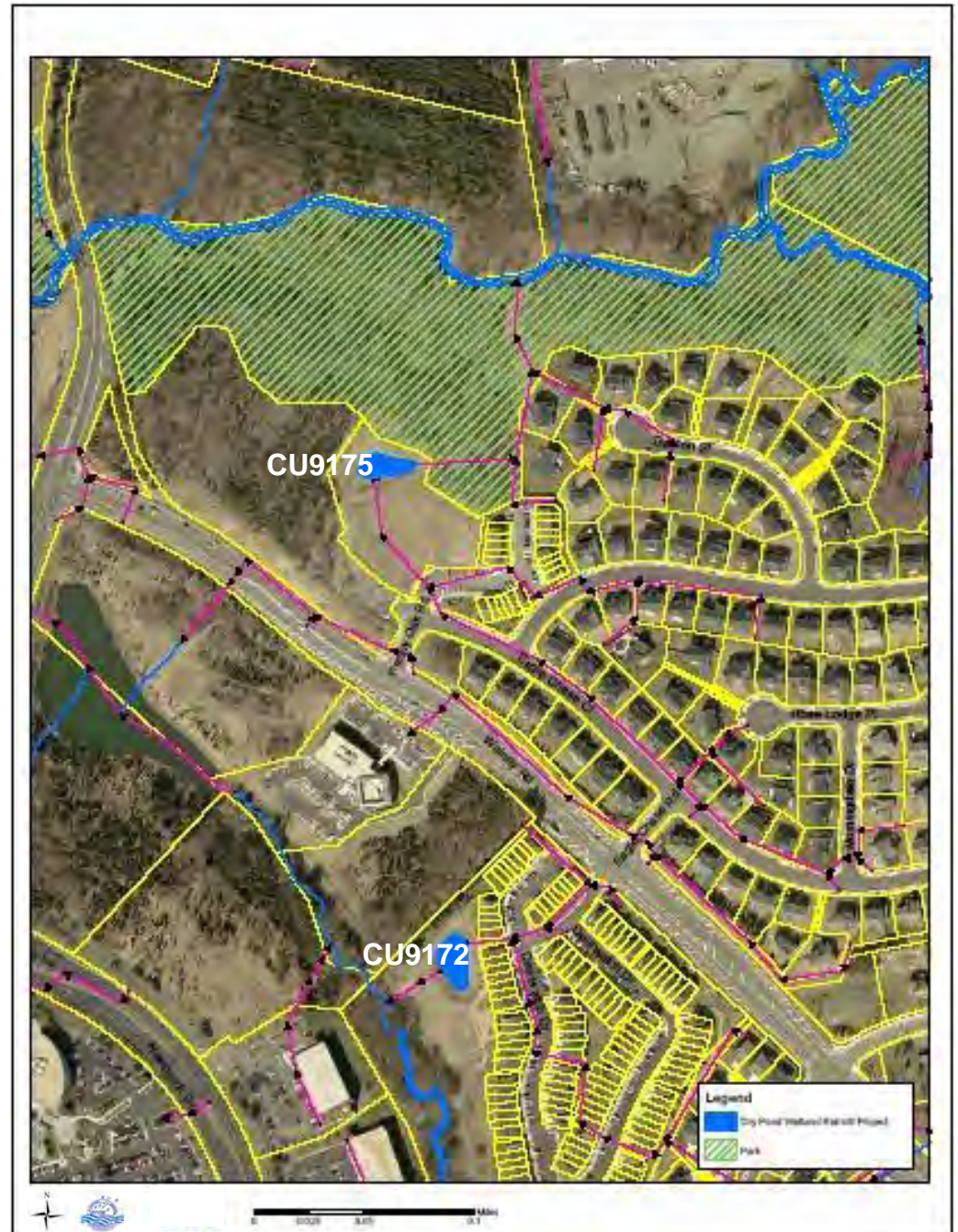
Project ID:	CU9171
Project Type:	Dry Pond Retrofit
Location:	Brookfield Corporate Center PIN - 0441 03 E2 Brookfield Corporate Center Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$38,832
Base Construction Cost				\$38,832
Mobilization (5%)				\$1,942
Subtotal 1				\$40,774
Contingency (25%)				\$10,193
Subtotal 2				\$50,967
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$22,935
Total				\$73,902
Estimated Project Cost				\$74,000



Project ID:	CU9172
Project Type:	Dry Pond Retrofit
Location:	Flatlick Branch Drive PIN - 0442 22 A Walney Village Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$36,672
Base Construction Cost				\$36,672
Mobilization (5%)				\$1,834
Subtotal 1				\$38,506
Contingency (25%)				\$9,626
Subtotal 2				\$48,132
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$21,659
Total				\$69,791
Estimated Project Cost				\$70,000



Project ID:	CU9173
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Lewis Leigh Court and Walney Road PIN - 0444 09 A The Estates at Leeton Manor Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$29,697
Base Construction Cost				\$29,697
Mobilization (5%)				\$1,485
Subtotal 1				\$31,182
Contingency (25%)				\$7,795
Subtotal 2				\$38,977
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$17,540
Total				\$56,517
Estimated Project Cost				\$57,000



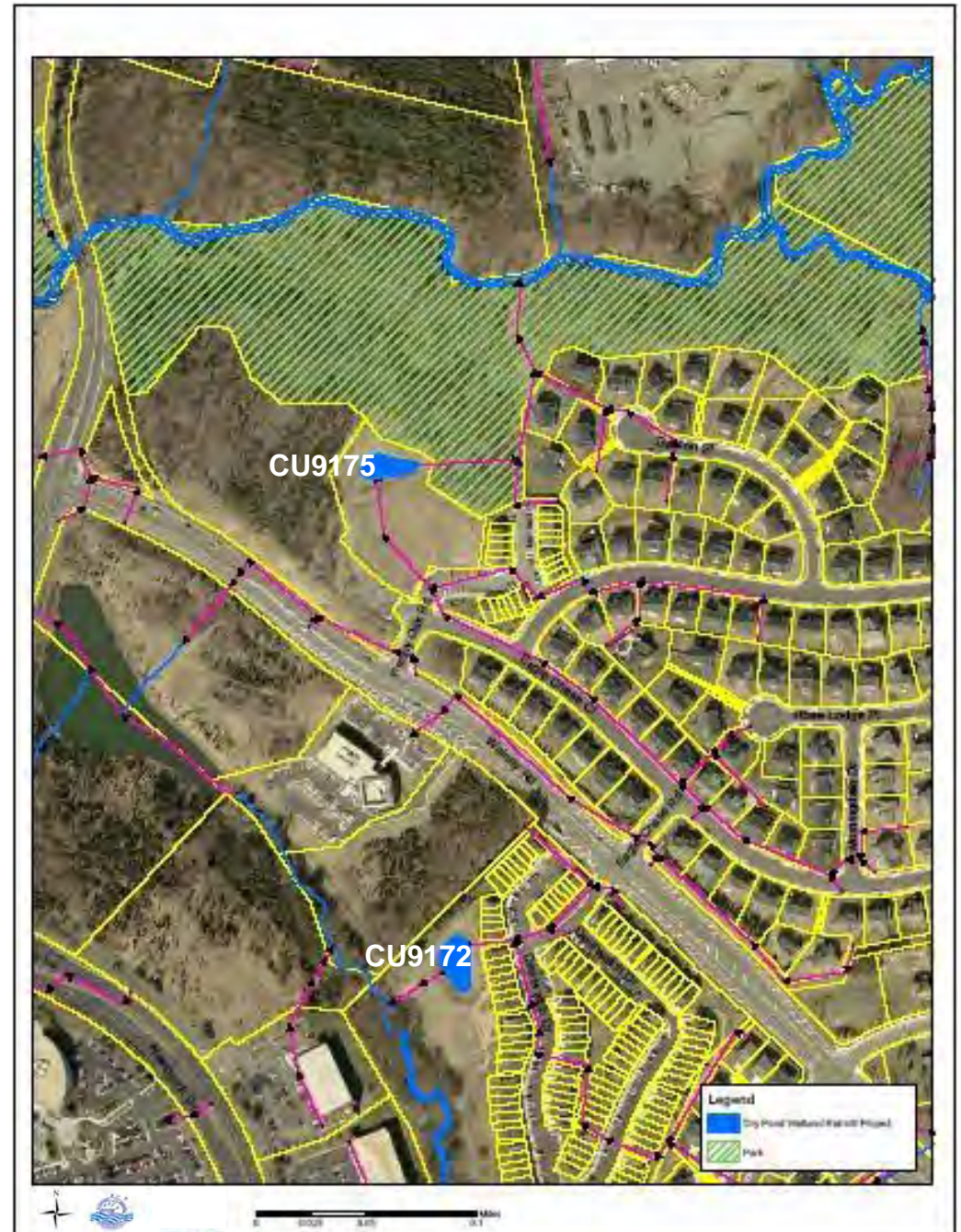
Project ID:	CU9174
Project Type:	Dry Pond Retrofit
Location:	Walney Road & Mariah Court PIN - 0441 03 B Brookfield Corporate Center Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$73,302
Base Construction Cost				\$73,302
Mobilization (5%)				\$3,665
Subtotal 1				\$76,967
Contingency (25%)				\$19,242
Subtotal 2				\$96,209
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$43,294
Total				\$139,503
Estimated Project Cost				\$140,000



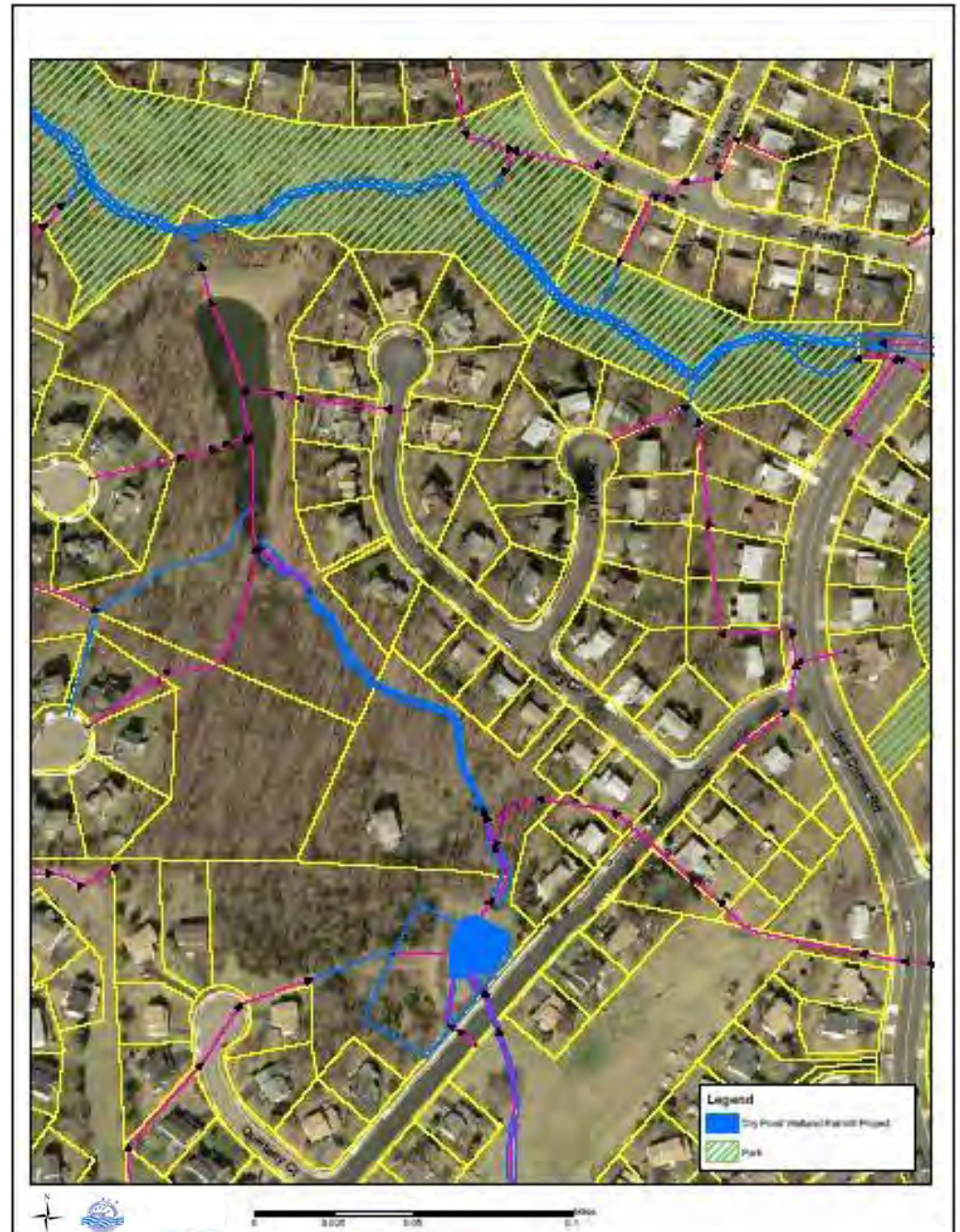
Project ID:	CU9175
Project Type:	Dry Pond Retrofit
Location:	Penny Tree Place PIN - 0442 20 B Walney Road Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$42,747
Base Construction Cost				\$42,747
Mobilization (5%)				\$2,137
Subtotal 1				\$44,884
Contingency (25%)				\$11,221
Subtotal 2				\$56,105
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$25,247
Total				\$81,353
Estimated Project Cost				\$82,000



Project ID:	CU9176
Project Type:	Dry Pond Retrofit
Location:	Fillingame Drive Between Quitway Court and Lowry Drive PIN - 0442 09 A Brookfield Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$57,813
Base Construction Cost				\$57,813
Mobilization (5%)				\$2,891
Subtotal 1				\$60,704
Contingency (25%)				\$15,176
Subtotal 2				\$75,880
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$34,146
Total				\$110,025
Estimated Project Cost				\$111,000



Project ID:	CU9177
Project Type:	Dry Pond Retrofit
Location:	Smallwood Court PIN - 0442 21 B Baileys Property Frog Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$32,307
Base Construction Cost				\$32,307
Mobilization (5%)				\$1,615
Subtotal 1				\$33,922
Contingency (25%)				\$8,481
Subtotal 2				\$42,403
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,081
Total				\$61,484
Estimated Project Cost				\$62,000



Project ID:	CU9178
Project Type:	Dry Pond Retrofit
Location:	Fallen Oak Court PIN - 0453 03 0129 Poplar Tree Estates Frog Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$41,901
Base Construction Cost				\$41,901
Mobilization (5%)				\$2,095
Subtotal 1				\$43,996
Contingency (25%)				\$10,999
Subtotal 2				\$54,995
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$24,748
Total				\$79,743
Estimated Project Cost				\$80,000



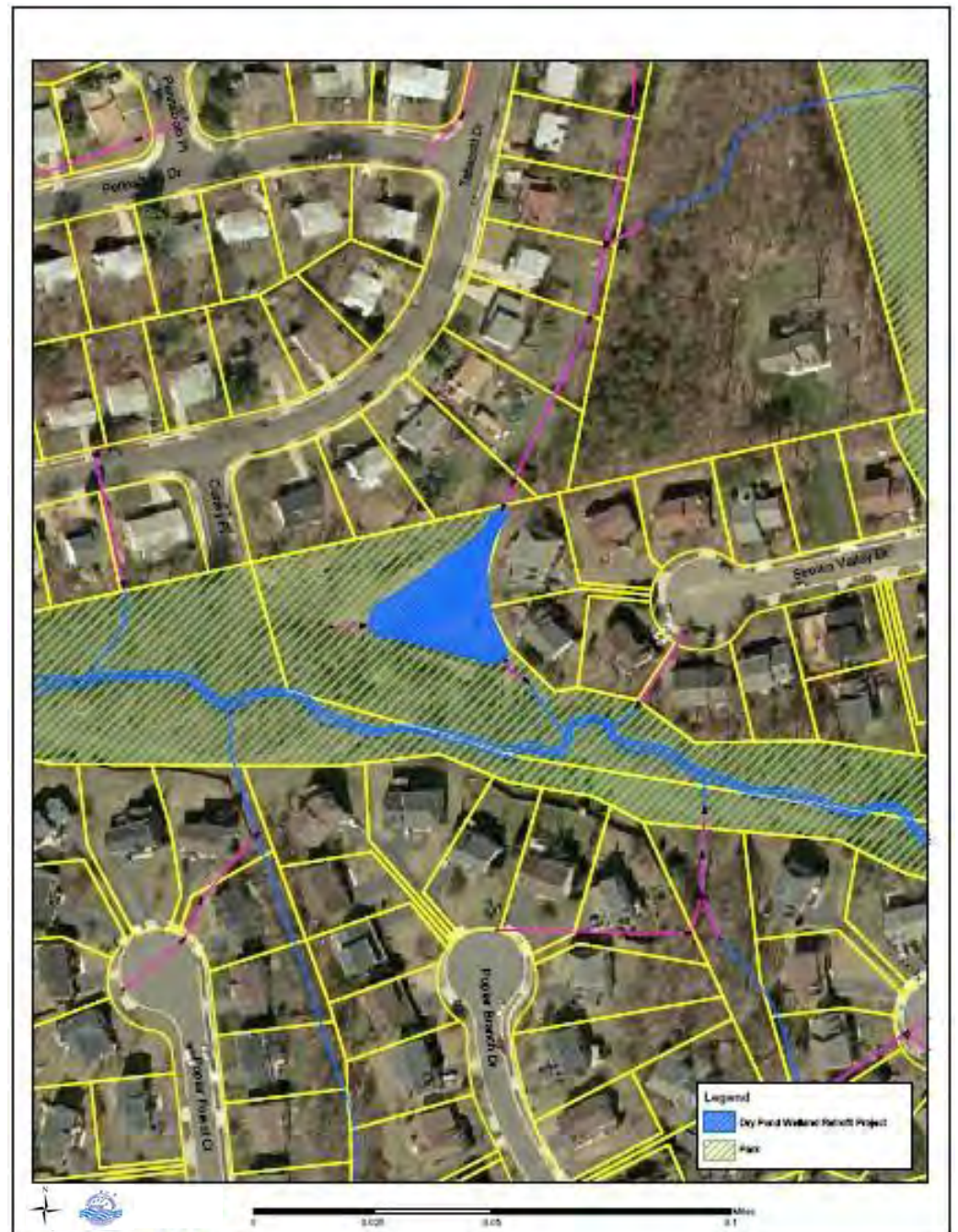
Project ID:	CU9179
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Hollowstone Court PIN - 0451 12 B Marian Woods Frog Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$33,027
Base Construction Cost				\$33,027
Mobilization (5%)				\$1,651
Subtotal 1				\$34,678
Contingency (25%)				\$8,670
Subtotal 2				\$43,348
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,507
Total				\$62,855
Estimated Project Cost				\$63,000



Project ID:	CU9180
Project Type:	Dry Pond Retrofit
Location:	Stream Valley Drive PIN - 0451 09 A Poplar Tree Woods Frog Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$66,723
Base Construction Cost				\$66,723
Mobilization (5%)				\$3,336
Subtotal 1				\$70,059
Contingency (25%)				\$17,515
Subtotal 2				\$87,574
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$39,408
Total				\$126,982
Estimated Project Cost				\$127,000



Project ID:	CU9181
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Rocky Run Middle School North PIN - 0453 03 E Poplar Tree Estates Frog Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$43,044
Base Construction Cost				\$29,130
Mobilization (5%)				\$1,457
Subtotal 1				\$30,587
Contingency (25%)				\$7,647
Subtotal 2				\$38,233
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$17,205
Total				\$55,438
Estimated Project Cost				\$56,000



Project ID	CU9182
Project Type:	Dry Pond Retrofit
Location:	Currey Lane, Chantilly Library PIN - 0451 01 0007 Frog Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$43,044
Base Construction Cost				\$43,044
Mobilization (5%)				\$2,152
Subtotal 1				\$45,196
Contingency (25%)				\$11,299
Subtotal 2				\$56,495
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$25,423
Total				\$81,918
Estimated Project Cost				\$82,000

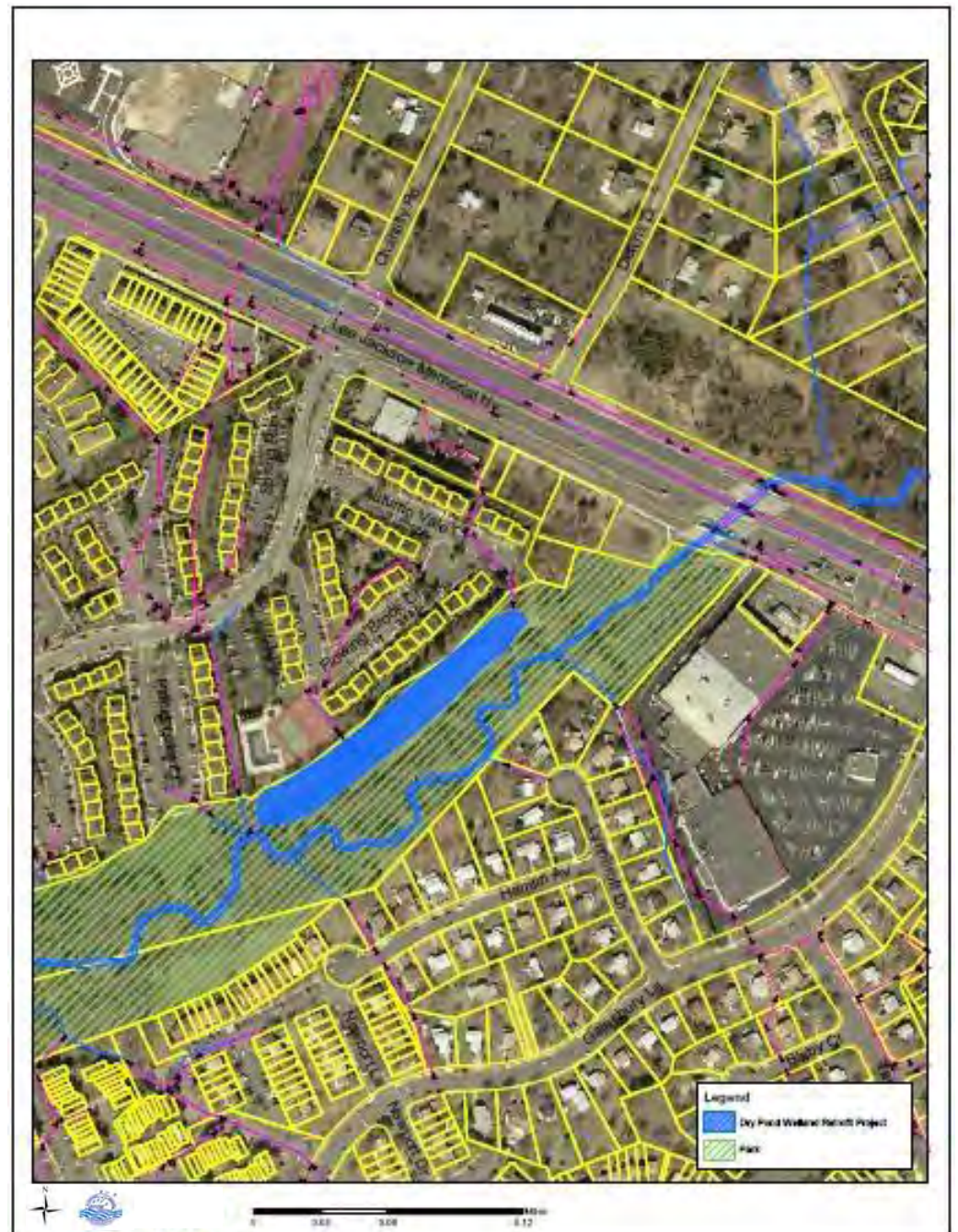


Project ID:	CU9183
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Leafcrest Lane PIN - 0451 01 0014 Frog Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$30,246
Base Construction Cost				\$30,246
Mobilization (5%)				\$1,512
Subtotal 1				\$31,758
Contingency (25%)				\$7,940
Subtotal 2				\$39,698
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$17,864
Total				\$57,562
Estimated Project Cost				\$58,000



Project ID:	CU9184			
Project Type:	Dry Pond Retrofit			
Location:	Flatlick Branch South of Route 50 PIN - 0442 01 0009 Flatlick Branch Stream Valley Park Near Winding Brook Condo Association Flatlick Branch			
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Located in Parkland. Maintenance status is unknown			
Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$31,164
Base Construction Cost				\$31,164
Mobilization (5%)				\$1,558
Subtotal 1				\$32,722
Contingency (25%)				\$8,181
Subtotal 2				\$40,903
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$18,406
Total				\$59,309
Estimated Project Cost				\$60,000



Project ID:	CU9185
Project Type:	Dry Pond Retrofit
Location:	Beach Down Drive PIN - 0344 10 X Armfield Farms Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$29,535
Base Construction Cost				\$29,535
Mobilization (5%)				\$1,477
Subtotal 1				\$31,012
Contingency (25%)				\$7,753
Subtotal 2				\$38,765
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$17,444
Total				\$56,209
Estimated Project Cost				\$57,000



Project ID:	CU9186
Project Type:	Dry Pond Retrofit
Location:	Beech Down Drive & Bellerose Drive PIN - 0344 10 V Armfield Farms Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$93,444
Base Construction Cost				\$93,444
Mobilization (5%)				\$4,672
Subtotal 1				\$98,116
Contingency (25%)				\$24,529
Subtotal 2				\$122,645
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$55,190
Total				\$177,836
Estimated Project Cost				\$178,000



Project ID:	CU9187
Project Type:	Dry Pond Retrofit
Location:	Hollinger Avenue & Lees Corner Road PIN - 0451 08 A Foxfield Flatick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$43,656
Base Construction Cost				\$43,656
Mobilization (5%)				\$2,183
Subtotal 1				\$45,839
Contingency (25%)				\$11,460
Subtotal 2				\$57,299
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$25,784
Total				\$83,083
Estimated Project Cost				\$84,000



Project ID:	CU9188
Project Type:	Dry Pond Retrofit
Location:	Kernstown Court (C43) PIN - 0451 0816 A Foxfield Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$59,577
Base Construction Cost				\$59,577
Mobilization (5%)				\$2,979
Subtotal 1				\$62,556
Contingency (25%)				\$15,639
Subtotal 2				\$78,195
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$35,188
Total				\$113,382
Estimated Project Cost				\$114,000



Project ID:	CU9189
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Lees Corner Road & King Charles Drive PIN - 0353 11 A1 Fair Oaks Farms Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$36,816
Base Construction Cost				\$36,816
Mobilization (5%)				\$1,841
Subtotal 1				\$38,657
Contingency (25%)				\$9,664
Subtotal 2				\$48,321
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$21,744
Total				\$70,065
Estimated Project Cost				\$71,000



Project ID:	CU9190
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Stringfellow Road Near Brandy Station Road PIN - 0353 2303 P Foxfield Oxlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$31,398
Base Construction Cost				\$31,398
Mobilization (5%)				\$1,570
Subtotal 1				\$32,968
Contingency (25%)				\$8,242
Subtotal 2				\$41,210
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$18,544
Total				\$59,754
Estimated Project Cost				\$60,000



Project ID:	CU9191
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Spring Pond Place and Kalmia Lane PIN - 0451 01 0014 Oxlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$31,245
Base Construction Cost				\$31,245
Mobilization (5%)				\$1,562
Subtotal 1				\$32,807
Contingency (25%)				\$8,202
Subtotal 2				\$41,009
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$18,454
Total				\$59,463
Estimated Project Cost				\$60,000



Project ID:	CU9192
Project Type:	Dry Pond Retrofit
Location:	Alder Woods Drive PIN - 0452 13 A Fair Oaks Hunt Oxlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$36,699
Base Construction Cost				\$36,699
Mobilization (5%)				\$1,835
Subtotal 1				\$38,534
Contingency (25%)				\$9,633
Subtotal 2				\$48,167
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$21,675
Total				\$69,843
Estimated Project Cost				\$70,000



Project ID:	CU9193
Project Type:	Dry Pond Retrofit
Location:	Mazewood Lane PIN - 0353 2310 R Foxfield Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$115,476
Base Construction Cost				\$115,476
Mobilization (5%)				\$5,774
Subtotal 1				\$121,250
Contingency (25%)				\$30,312
Subtotal 2				\$151,562
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$68,203
Total				\$219,765
Estimated Project Cost				\$220,000



Project ID:	CU9194
Project Type:	Dry Pond Retrofit
Location:	Thompson Road & Oxon Road PIN - 0354 17 B Camberley East Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$70,323
Base Construction Cost				\$70,323
Mobilization (5%)				\$3,516
Subtotal 1				\$73,839
Contingency (25%)				\$18,460
Subtotal 2				\$92,299
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$41,535
Total				\$133,833
Estimated Project Cost				\$134,000



Project ID:	CU9195
Project Type:	Dry Pond Retrofit
Location:	Fairfax County Parkway & Tuckaway Drive PIN - 0353 01 0012I Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Evaluate and implement options to provide enhanced peak flow control. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$64,824
Base Construction Cost				\$64,824
Mobilization (5%)				\$3,241
Subtotal 1				\$68,065
Contingency (25%)				\$17,016
Subtotal 2				\$85,082
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$38,287
Total				\$123,368
Estimated Project Cost				\$124,000



Project ID:	CU9196			
Project Type:	Dry Pond Retrofit – Low Priority			
Location:	Fern Hollow Place PIN - 0353 0915 C Franklin Farm Flatlick Branch			
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Evaluate and implement options to provide enhanced peak flow control. Public maintenance			
Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$33,333
Base Construction Cost				\$33,333
Mobilization (5%)				\$1,667
Subtotal 1				\$35,000
Contingency (25%)				\$8,750
Subtotal 2				\$43,750
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,687
Total				\$63,437
Estimated Project Cost				\$64,000



Project ID:	CU9197
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Ashvale Drive & Franklin Manor Court PIN - 0353 24 D Franklin Manor Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Evaluate and implement options to provide enhanced peak flow control. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$30,390
Base Construction Cost				\$30,390
Mobilization (5%)				\$1,520
Subtotal 1				\$31,910
Contingency (25%)				\$7,977
Subtotal 2				\$39,887
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$17,949
Total				\$57,836
Estimated Project Cost				\$58,000



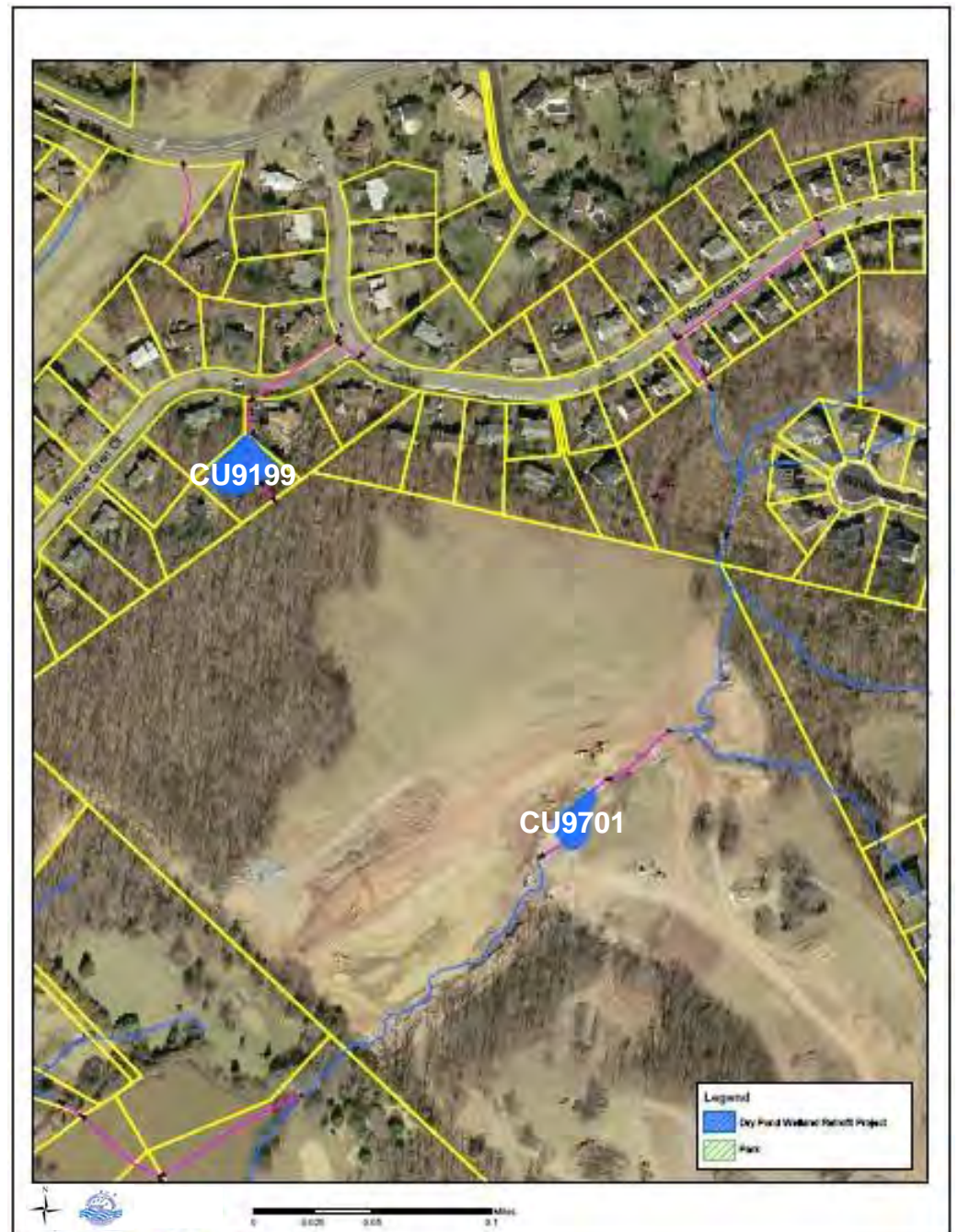
Project ID:	CU9198
Project Type:	Dry Pond Retrofit
Location:	Applegrove Lane and Fern Hollow Place PIN - 0353 0915 L Franklin Farm Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Evaluate and implement options to provide enhanced peak flow control. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$52,422
Base Construction Cost				\$52,422
Mobilization (5%)				\$2,621
Subtotal 1				\$55,043
Contingency (25%)				\$13,761
Subtotal 2				\$68,804
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$30,962
Total				\$99,766
Estimated Project Cost				\$100,000



Project ID:	CU9199
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Willow Glen Court PIN - 0354 10 P Franklin Farm Section 5D Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Evaluate and implement options to provide enhanced peak flow control. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$31,938
Base Construction Cost				\$31,938
Mobilization (5%)				\$1,597
Subtotal 1				\$33,535
Contingency (25%)				\$8,384
Subtotal 2				\$41,919
Engineering design, surveys, land acquisition, utility locations, and permits (45%)			\$18,863	
Total				\$60,782
Estimated Project Cost				\$61,000



Fact Sheets

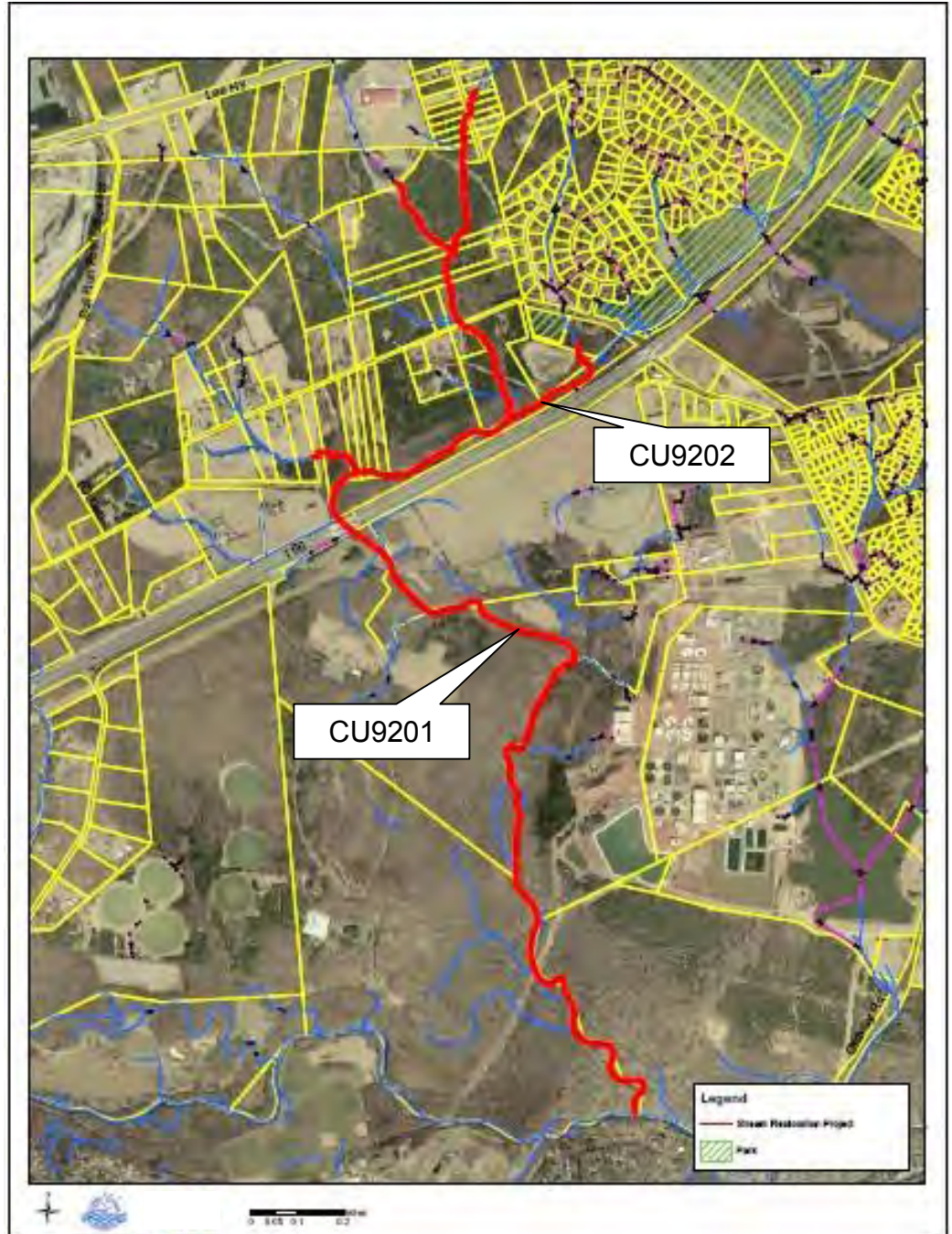
Projects CU9201 through CU9221

Cub Run Watershed Stream Restoration Projects

Projects CU9201 through CU9221.

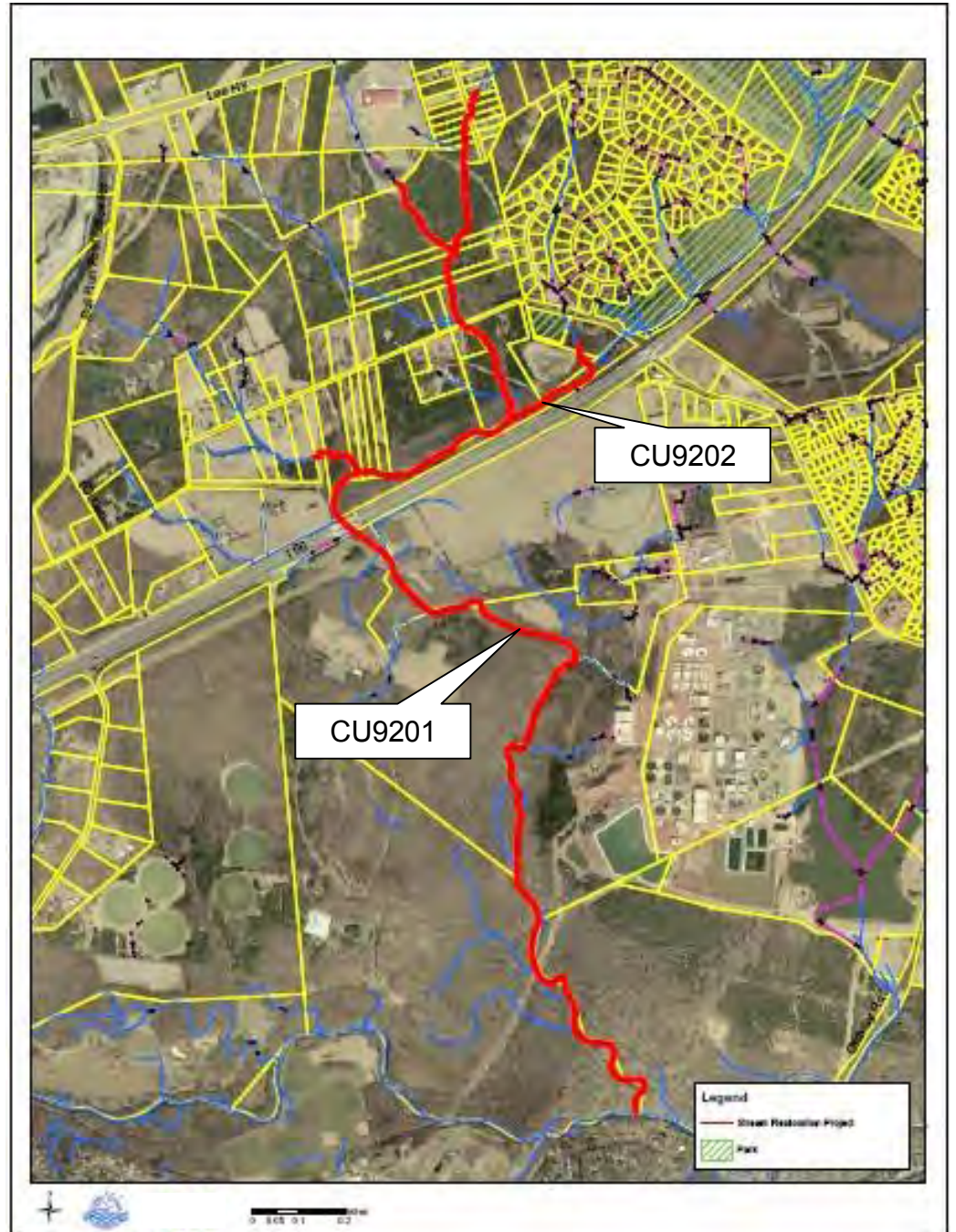
Project ID:	CU9201
Project Type:	Stream Restoration
Location:	Lower Cub Run – Within Bull Run Regional Park south of Route 66 Tax Maps – 64-4 and 73-2
Description:	Stream erosion inventory lines with impact scores up to 7. Significant reaches have bank stability scores of 3 or less and stream buffer impacts. Located within Northern Virginia Regional Park Authority Bull Run Regional Park. Total project length is 10,030 feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	10,030	Feet	\$186.98	\$1,875,400
Base Construction Cost				\$1,875,400
Mobilization (5%)				\$93,770
Subtotal 1				\$1,969,170
Contingency (25%)				\$492,293
Subtotal 2				\$2,461,463
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$1,107,658
Total				\$3,569,121
Estimated Project Cost				\$3,570,000



Project ID:	CU9202
Project Type:	Stream Restoration
Location:	Lower Bull Run and unnamed tributaries between Compton Road and I-66 Tax Maps – 64-2, 64-3
Description:	Various segments with stream erosion inventories, stream bank stability 2 though 4, and stream buffer impacts. Two head cuts and SCI scores in some reaches down to 2.0. Located mostly in private property with some stream valley parkland. Total project length is 10,400 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	10,400	Feet	\$145.70	\$1,515,310
Base Construction Cost				\$1,515,310
Mobilization (5%)				\$75,766
Subtotal 1				\$1,591,076
Contingency (25%)				\$397,769
Subtotal 2				\$1,988,844
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$894,980
Total				\$2,883,824
Estimated Project Cost				\$2,884,000



Project ID:	CU9203
Project Type:	Stream Restoration
Location:	Big Rocky Run – Upstream from Cub Run confluence and downstream from Route 29. Parallels I-66. Tax Maps 65-1 Subdivision – Pendleton Park
Description:	Stream bank inventory lines, stability scores of 3 and 4 and buffer impacts. SCI of 2.9. Located partially within stream valley parkland. Total project length is 1,550 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	1,550	Feet	\$281.45	\$436,250
Base Construction Cost				\$436,250
Mobilization (5%)				\$21,813
Subtotal 1				\$458,063
Contingency (25%)				\$114,516
Subtotal 2				\$572,578
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$257,660
Total				\$830,238
Estimated Project Cost				\$831,000



Project ID:	CU9204
Project Type:	Stream Restoration
Location:	Big Rocky Run Tributary upstream from I-66 Tax Map – 54-3, 65-1 Subdivisions - Centre Ridge, Sanderling Condo, The Meadows
Description:	Bank stability scores of 3 and 5, erosion inventory lines with impact score up to 9, and deficient buffers. SCI scores of 2.9 and 2.1. Located partially within parkland and partially within private property. Total project length is 3,470 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	3,470	Feet	\$197.05	\$683,763
Base Construction Cost				\$683,763
Mobilization (5%)				\$34,188
Subtotal 1				\$717,951
Contingency (25%)				\$179,488
Subtotal 2				\$897,439
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$403,848
Total				\$1,301,286
Estimated Project Cost				\$1,302,000



Project ID:	CU9205
Project Type:	Stream Restoration
Location:	Big Rocky Run – Below Awbrey Patent Drive and above Route 29 Tax Map – 54-3 Subdivisions - Battery Ridge, Newgate, Rocky Run
Description:	Bank stability scores of 3 with buffer impacts. Located within Big Rocky Run Stream Valley Park. Total project length is 1,390 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	1,390	Feet	\$271.94	\$378,000
Base Construction Cost				\$378,000
Mobilization (5%)				\$18,900
Subtotal 1				\$396,900
Contingency (25%)				\$99,225
Subtotal 2				\$496,125
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$223,256
Total				\$719,381
Estimated Project Cost				\$720,000



Project ID:	CU9206
Project Type:	Stream Restoration
Location:	Big Rocky Run tributary – Below Braddock Road Tax Map – 54-1 Subdivisions - Newgate
Description:	Small stream with bank stability scores of 3 and minor buffer impacts. Area includes a dump that will be addressed. Located mostly within stream valley park. Total project length is 740 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	740	Feet	\$335.14	\$248,000
Base Construction Cost				\$248,000
Mobilization (5%)				\$12,400
Subtotal 1				\$260,400
Contingency (25%)				\$65,100
Subtotal 2				\$325,500
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$146,475
Total				\$471,975
Estimated Project Cost				\$472,000



Project ID:	CU9207
Project Type:	Stream Restoration
Location:	Big Rocky Run – Between Route 28 and Braddock Road. Within Ellanor C. Lawrence Park Tax Maps 54-1 and 54-2
Description:	Stream bank stability scores of 3 and 4 throughout. Located within FCPA stream valley parkland. Total project length is 2,450 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	2,450	Feet	\$236.00	\$578,200
Base Construction Cost				\$578,200
Mobilization (5%)				\$28,910
Subtotal 1				\$607,110
Contingency (25%)				\$151,778
Subtotal 2				\$758,888
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$341,499
Total				\$1,100,387
Estimated Project Cost				\$1,101,000



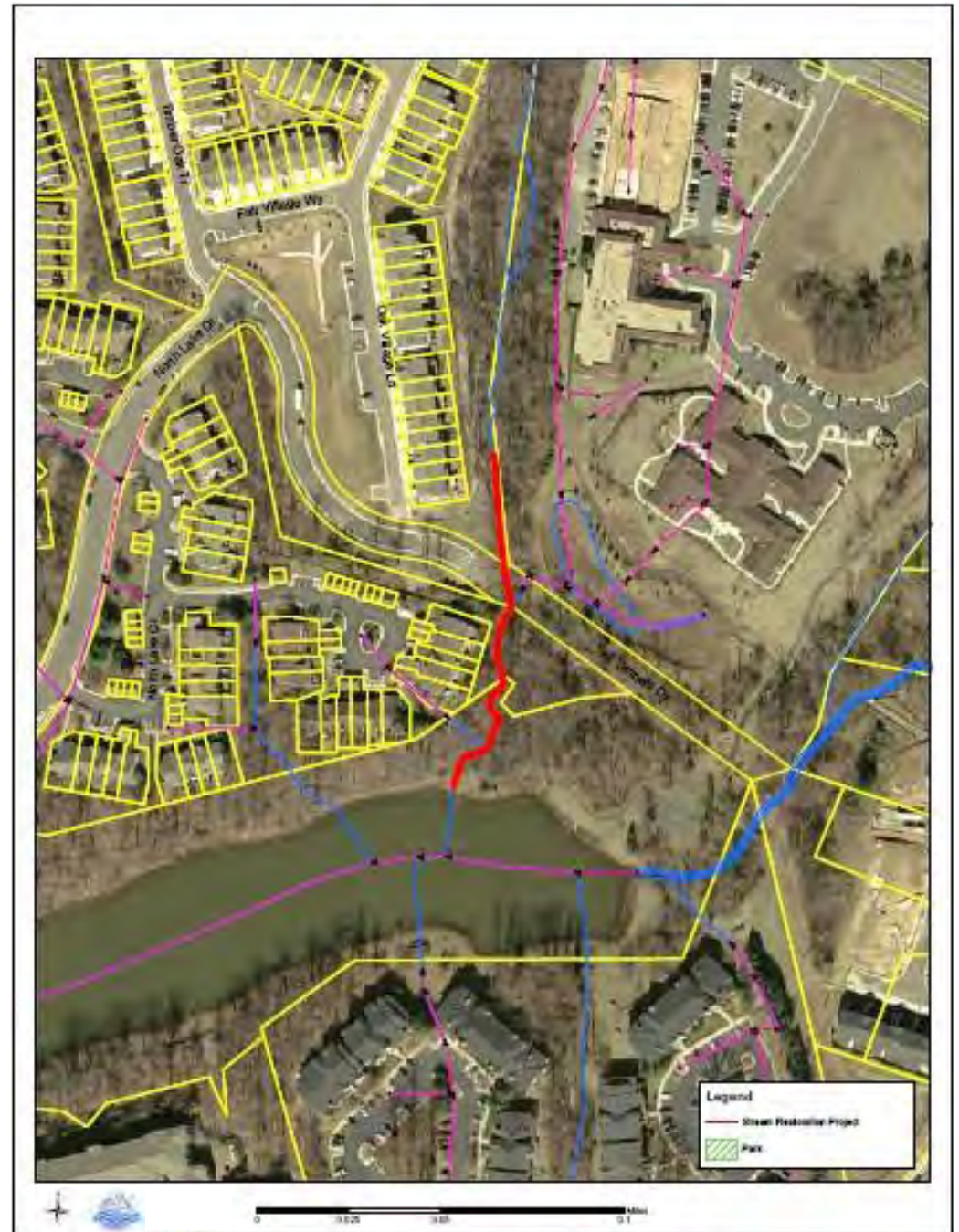
Project ID:	CU9208
Project Type:	Stream Restoration
Location:	Big Rocky Run Tributary – Fair Lakes Tax Map – 46-3. 55-2, 56-1 Subdivisions - Fair Lakes Section 6E
Description:	Stream bank stability of 3 and 4, some stream erosion inventory lines and one head cut. Located partly in stream valley park and partially private property (townhouse development). New development has affected portion of stream since date of photo. Total project length is 2,680 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	2,680	Feet	\$212.64	\$569,870
Base Construction Cost				\$569,870
Mobilization (5%)				\$28,494
Subtotal 1				\$598,364
Contingency (25%)				\$149,591
Subtotal 2				\$747,954
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$336,579
Total				\$1,084,534
Estimated Project Cost				\$1,085,000



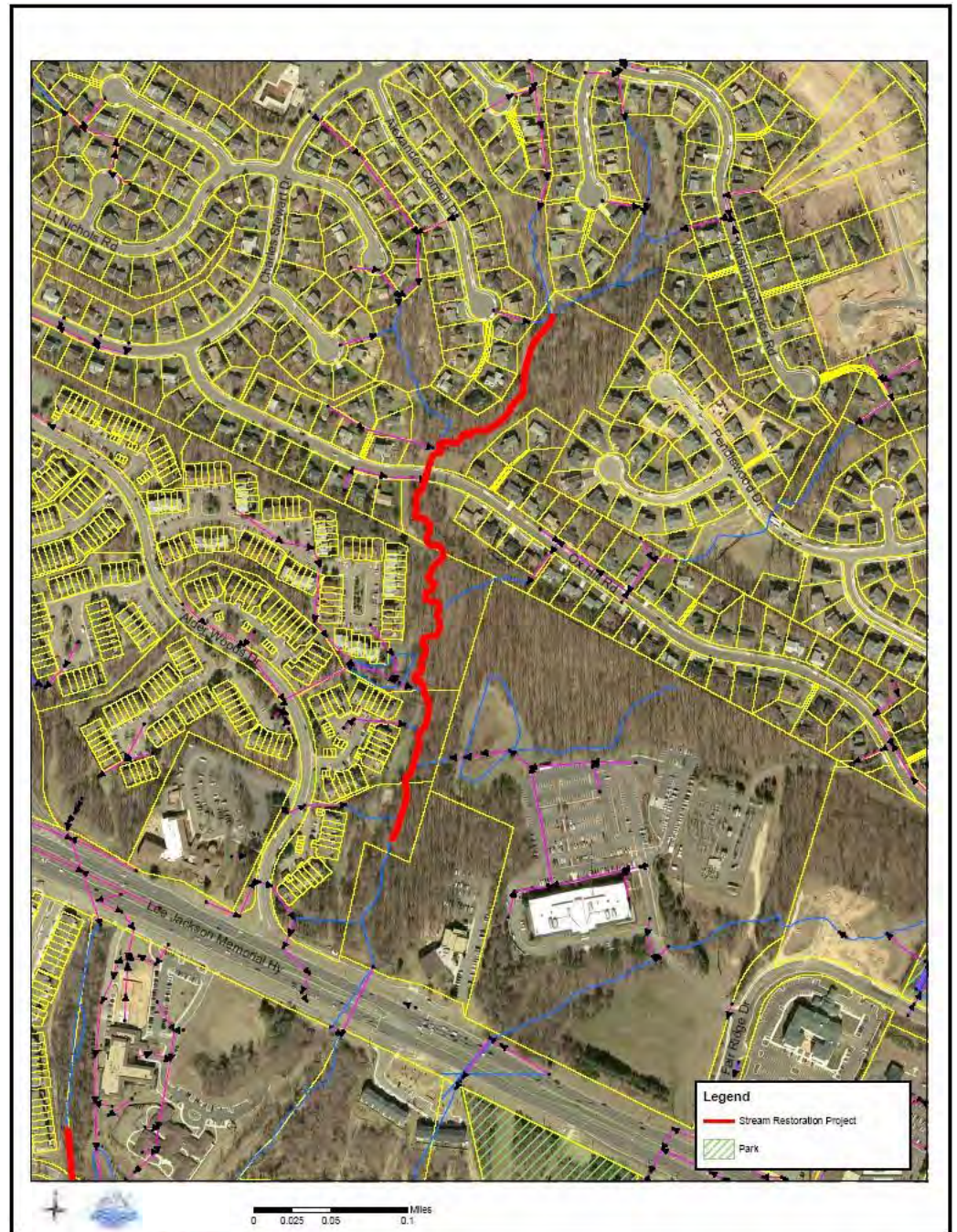
Project ID:	CU9209
Project Type:	Stream Restoration
Location:	Big Rocky Run Tributary – Oaks Chase near Timber Oak Trail. Tax Map 45-4 Subdivision – Fair Lakes Section 1A
Description:	Stream bank stability scores of 3 and deficient buffers. Located within private property. Total project length is 530 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	530	Feet	\$387.26	\$205,250
Base Construction Cost				\$205,250
Mobilization (5%)				\$10,263
Subtotal 1				\$215,513
Contingency (25%)				\$53,878
Subtotal 2				\$269,391
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$121,226
Total				\$390,616
Estimated Project Cost				\$391,000



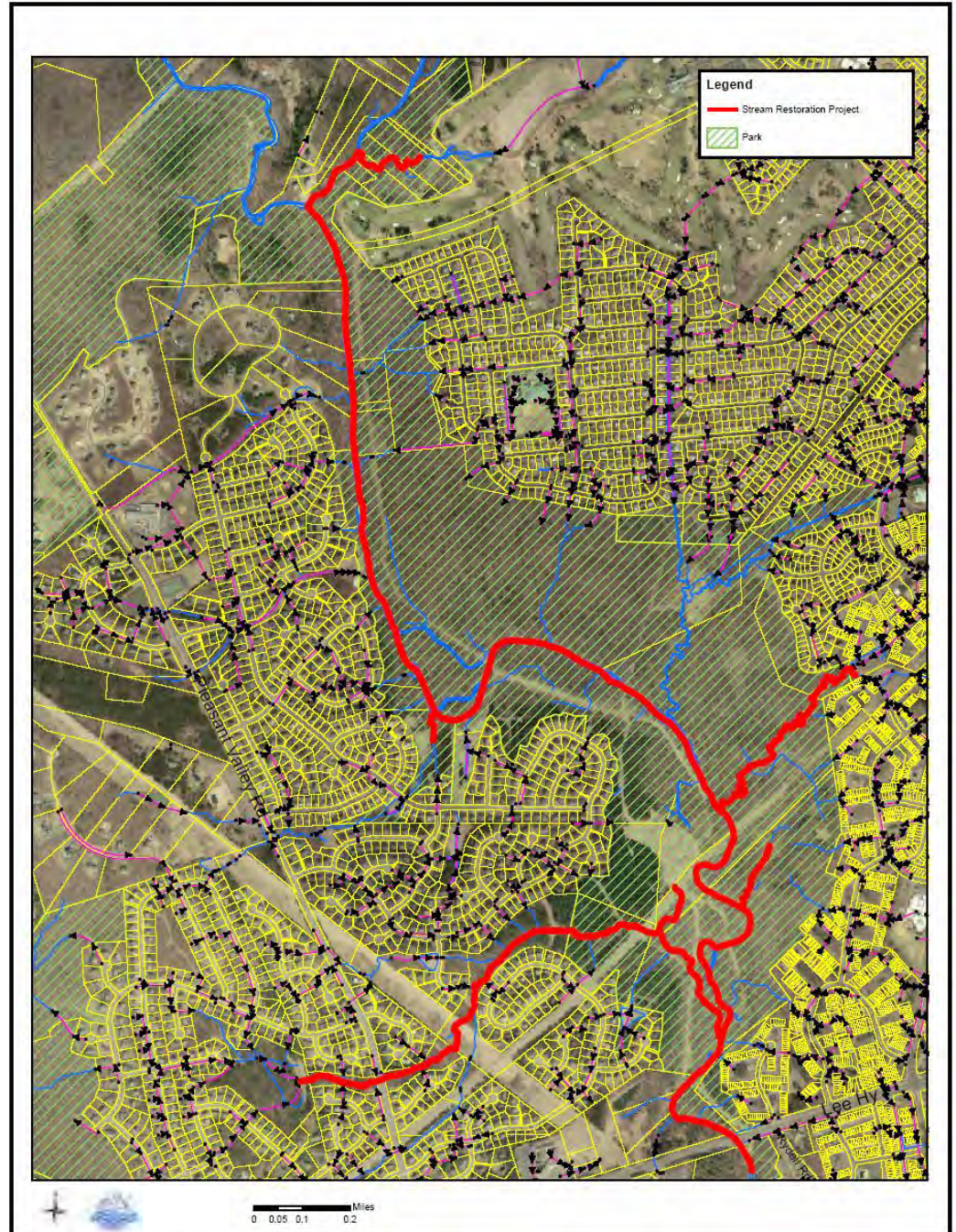
Project ID:	CU9210
Project Type:	Stream Restoration
Location:	Big Rocky Run – Upstream and downstream from Ox Hill Road, Upstream from Route 50. Tax Map – 45-2, 45-4, 46-1 Subdivisions - Fair Oaks Estates, Fair Woods
Description:	Stream bank stability of 2 and deficient buffers. Located within private property (HOA). Total project length is 2,310 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	2,310	Feet	\$219.23	\$506,415
Base Construction Cost				\$506,415
Mobilization (5%)				\$25,321
Subtotal 1				\$531,736
Contingency (25%)				\$132,934
Subtotal 2				\$664,670
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$299,101
Total				\$963,771
Estimated Project Cost				\$964,000



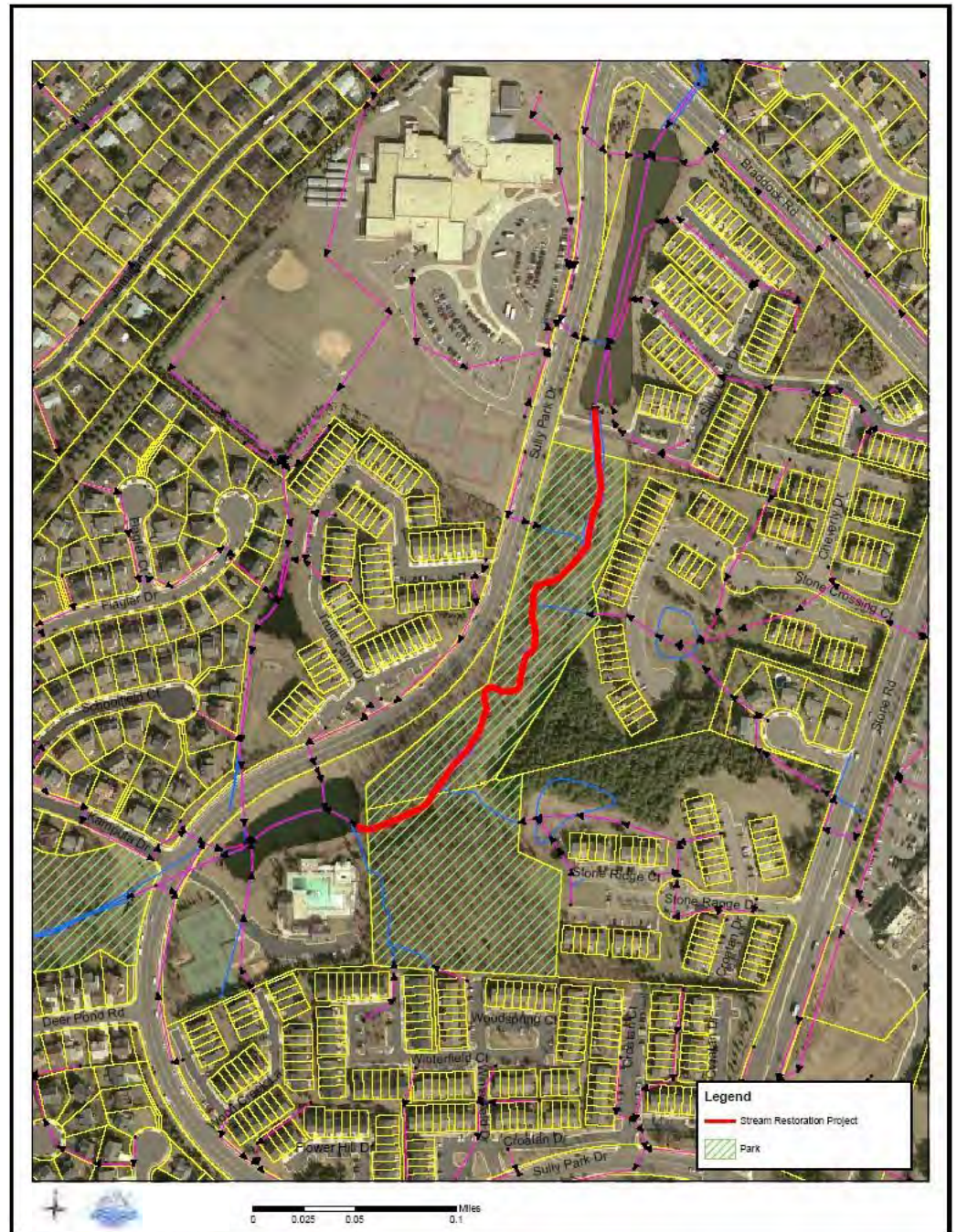
Project ID:	CU9211
Project Type	Stream Restoration
Location:	Middle Cub Run main stem and selected tributaries – From Flatlick Branch to just below Route 29. Tax Maps - 43-3, 43-4, 53-1, 53-2, 53-3, 53-4, 64-2 Subdivisions – Country Club Manor, Pleasant Hill, Sully Estates, Sully Station, Sully Station II, Swart Farm, Virginia Run The Estates, Weltman Estates, Westport
Description:	Various reaches with stream erosion inventory lines with impact scores up to 10 and low stream bank stability scores. Head cuts and deficient buffers. Located mostly in FCPA Cub Run Stream Valley Park with some private property. Total project length is 29,810 linear feet, not all requires restoration. Project may be completed in segments.

Item	Qty	Units	Unit Cost	Total Cost
Length	29,810	Feet	\$182.35	\$5,435,800
Base Construction Cost				\$5,435,800
Mobilization (5%)				\$271,790
Subtotal 1				\$5,707,590
Contingency (25%)				\$1,426,898
Subtotal 2				\$7,134,488
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$3,210,519
Total				\$10,345,007
Estimated Project Cost				\$10,346,000



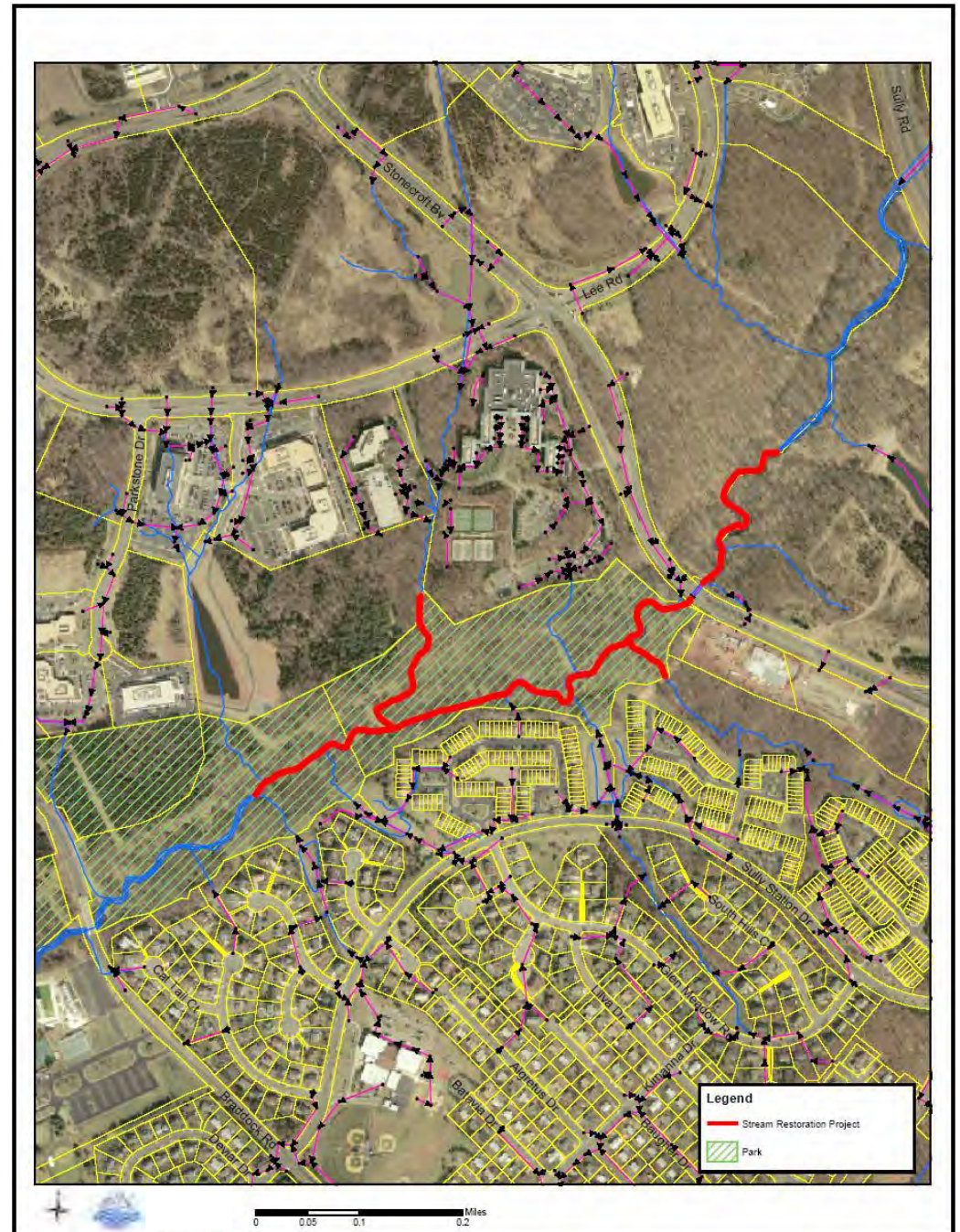
Project ID:	CU9212
Project Type:	Stream Restoration
Location:	Round Lick Branch – Upstream from Sully Park Drive Tax Map – 54-1 Subdivisions – Stone Crossing, Stonehenge, Sully Station
Description:	Stream bank stability scores of 3 and 4 with some deficient stream buffers. Located within stream valley park. Total project length is 1,430 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	1,430	Feet	\$269.93	\$386,000
Base Construction Cost				\$386,000
Mobilization (5%)				\$19,300
Subtotal 1				\$405,300
Contingency (25%)				\$101,325
Subtotal 2				\$506,625
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$227,981
Total				\$734,606
Estimated Project Cost				\$735,000



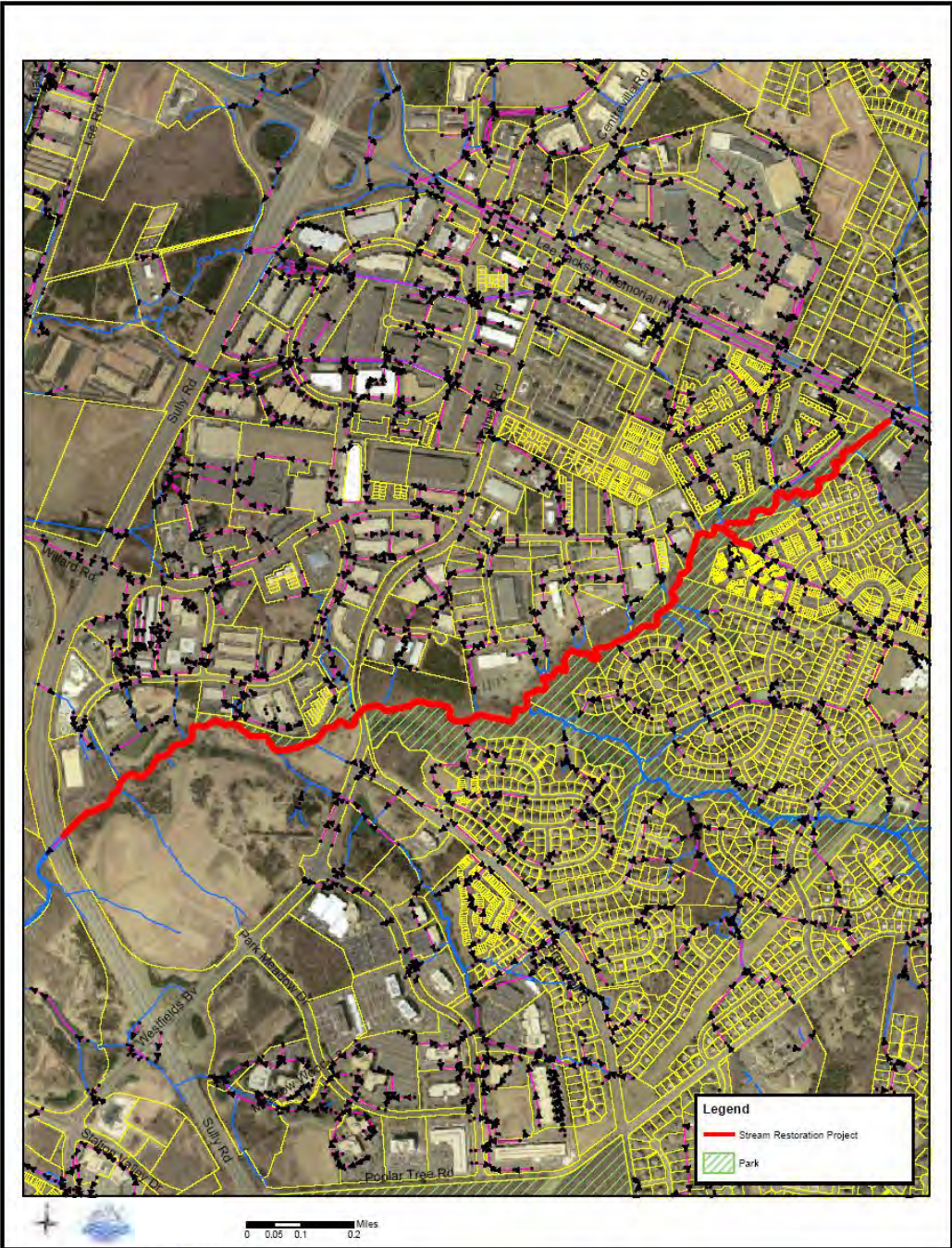
Project ID:	CU9213
Project Type:	Stream Restoration
Location:	Flatlick Branch – Upstream and downstream from Stonecroft Boulevard Tax Map – 43-4 and 44-3 Subdivisions - Sully Station, Westfields International Center at Dulles
Description:	Various erosion and obstruction inventory points and low stream bank stability. Four head cuts and deficient buffers. Located mostly in FCPA Flatlick Branch Stream Valley park with some private property. Total project length is 5,040 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	5,040	Feet	\$208.85	\$1,052,600
Base Construction Cost				\$1,052,600
Mobilization (5%)				\$52,630
Subtotal 1				\$1,105,230
Contingency (25%)				\$276,308
Subtotal 2				\$1,381,538
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$621,692
Total				\$2,003,229
Estimated Project Cost				\$2,004,000



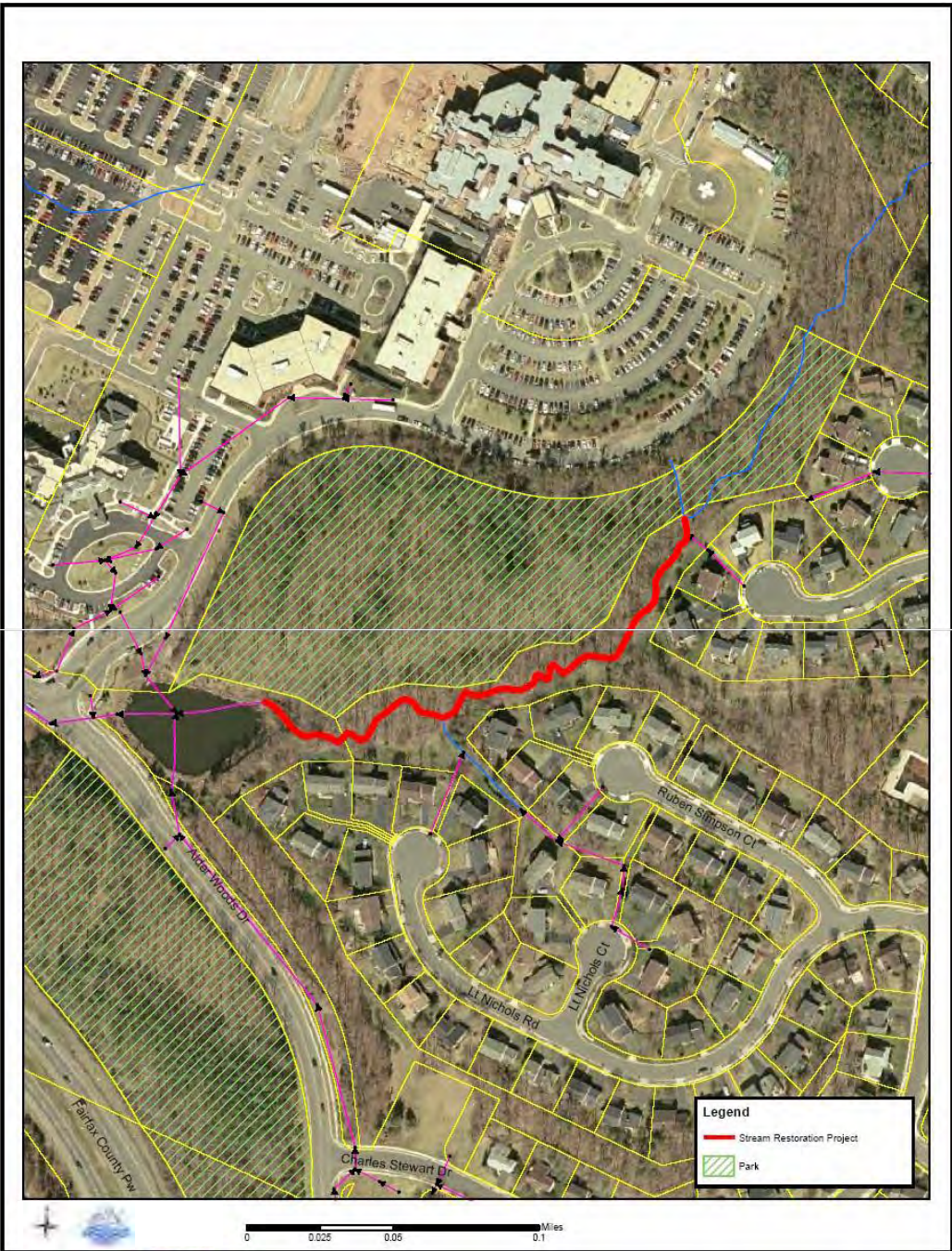
Project ID:	CU9214
Project Type:	Stream Restoration
Location:	Flatlick Branch – Between Route 50 and Route 28 Tax Map – 34-4, 44-1, 44-2 Subdivisions – Brookfield Corporate Center, Brookleigh, Chantilly Industrial Park, Marky Business Center, Walney Road, Waverly Crossing, Willard Industrial Park.
Description:	Stream shows various stream erosion inventory lines and low stream bank stability scores and stream buffer impacts. Located mostly within FCPA Flatlick Branch Stream Valley Park with some private property. Total project length is 11,910 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	11,910	Feet	\$166.45	\$1,982,474
Base Construction Cost				\$1,982,474
Mobilization (5%)				\$99,124
Subtotal 1				\$2,081,598
Contingency (25%)				\$520,399
Subtotal 2				\$2,601,997
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$1,170,899
Total				\$3,772,896
Estimated Project Cost				\$3,773,000



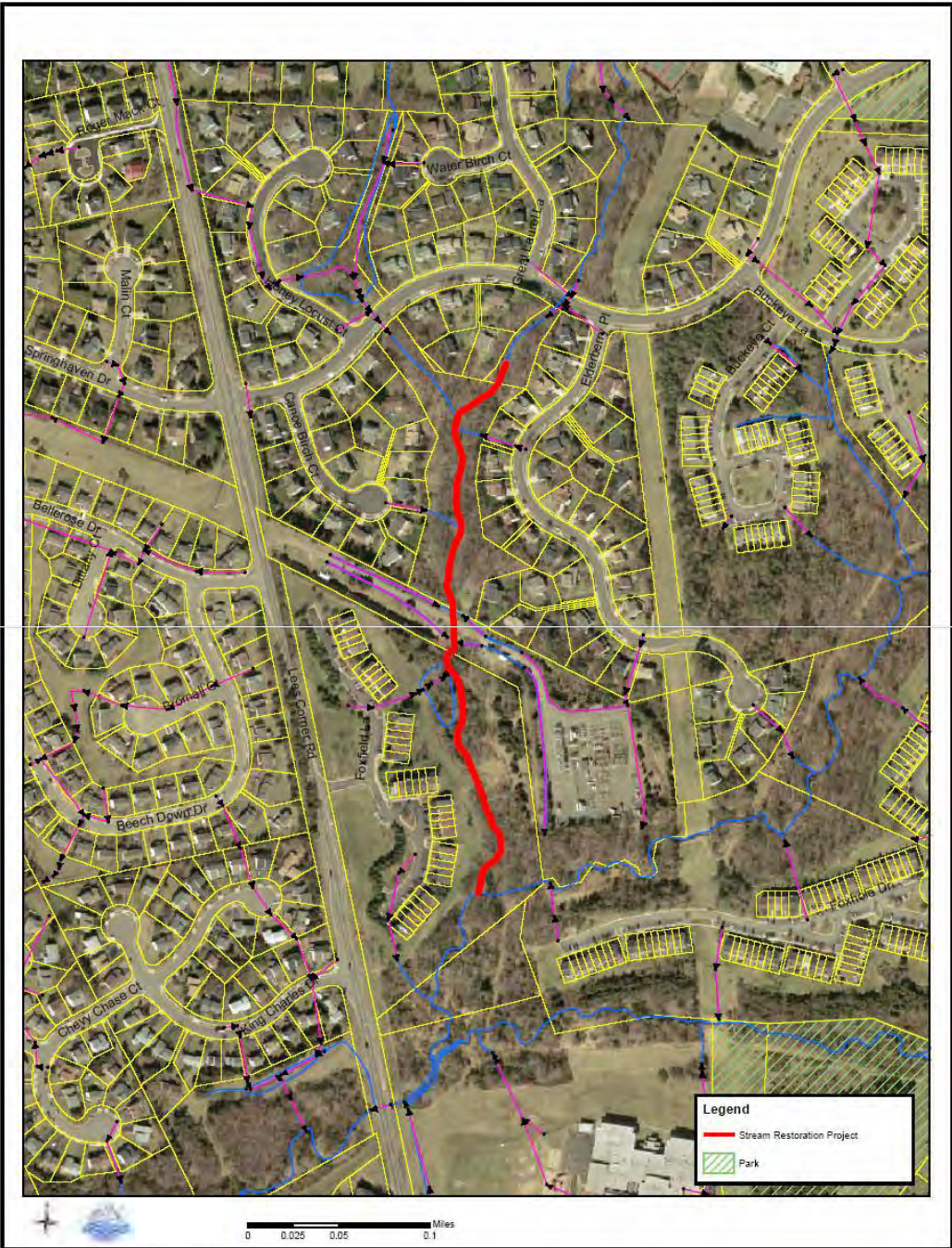
Project ID:	CU9215
Project Type:	Stream Restoration
Location:	Oxlick Branch – Upstream from Alder Woods Drive Fair Oaks Estates Tax Map – 45-2 Subdivision – Fair Oaks Estates
Description:	Bank stability scores of 3 and 2 with stream bank erosion inventory score of 4. Deficient buffer throughout reach. Some of area is parkland and remainder is privately owned by HOA. Total project length is 1,090 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	1,090	Feet	\$278.21	\$303,250
Base Construction Cost				\$303,250
Mobilization (5%)				\$15,163
Subtotal 1				\$318,413
Contingency (25%)				\$79,603
Subtotal 2				\$398,016
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$179,107
Total				\$577,123
Estimated Project Cost				\$578,000



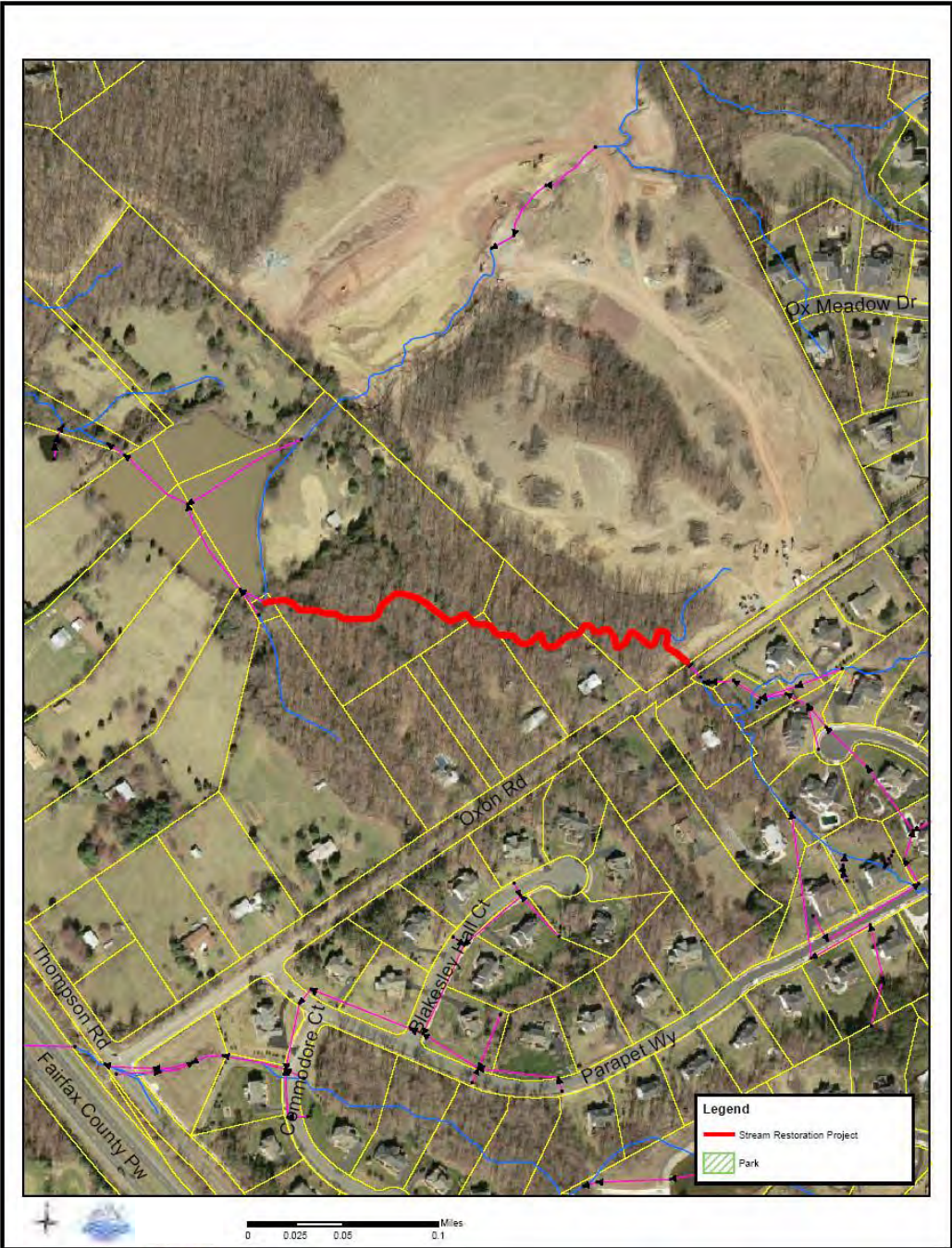
Project ID:	CU9216
Project Type:	Stream Restoration
Location:	Flatlick Branch Tributary – Franklin Glenn Tax Map – 34-3 Subdivisions – Foxfield, Franklin Glen
Description:	Small tributary with erosion inventory lines with impact score of 5 and bank stability scores of 3 and 4. SCI = 2.4 and deficient buffers throughout reach. Located on private property (HOA). Total project length is 1,690 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	1,690	Feet	\$241.57	\$408,250
Base Construction Cost				\$408,250
Mobilization (5%)				\$20,413
Subtotal 1				\$428,663
Contingency (25%)				\$107,166
Subtotal 2				\$535,828
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$241,123
Total				\$776,951
Estimated Project Cost				\$777,000



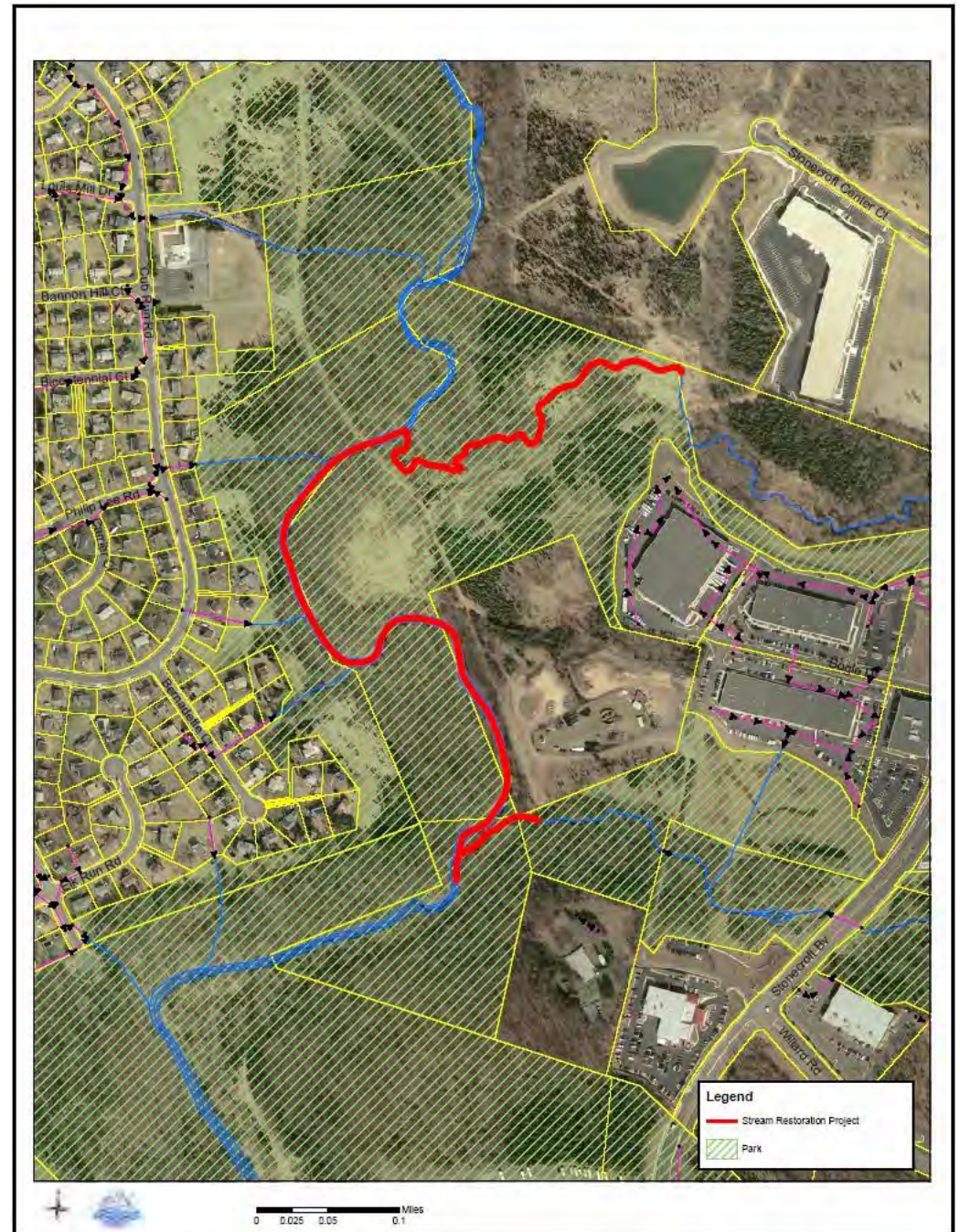
Project ID:	CU9217
Project Type:	Stream Restoration
Location:	Flatlick Branch Tributary – Downstream from Oxon Road to existing lake Tax Map – 35-4 Subdivision – Dawi Development Corporation, Navy Park, Oak Hill Reserve
Description:	Stream bank stability of 3 and 2 with stream buffer impacts. SCI = 2.2. Located on private property. Total project length is 1,500 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	1,500	Feet	\$250.00	\$375,000
Base Construction Cost				\$375,000
Mobilization (5%)				\$18,750
Subtotal 1				\$393,750
Contingency (25%)				\$98,438
Subtotal 2				\$492,188
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$221,484
Total				\$713,672
Estimated Project Cost				\$714,000



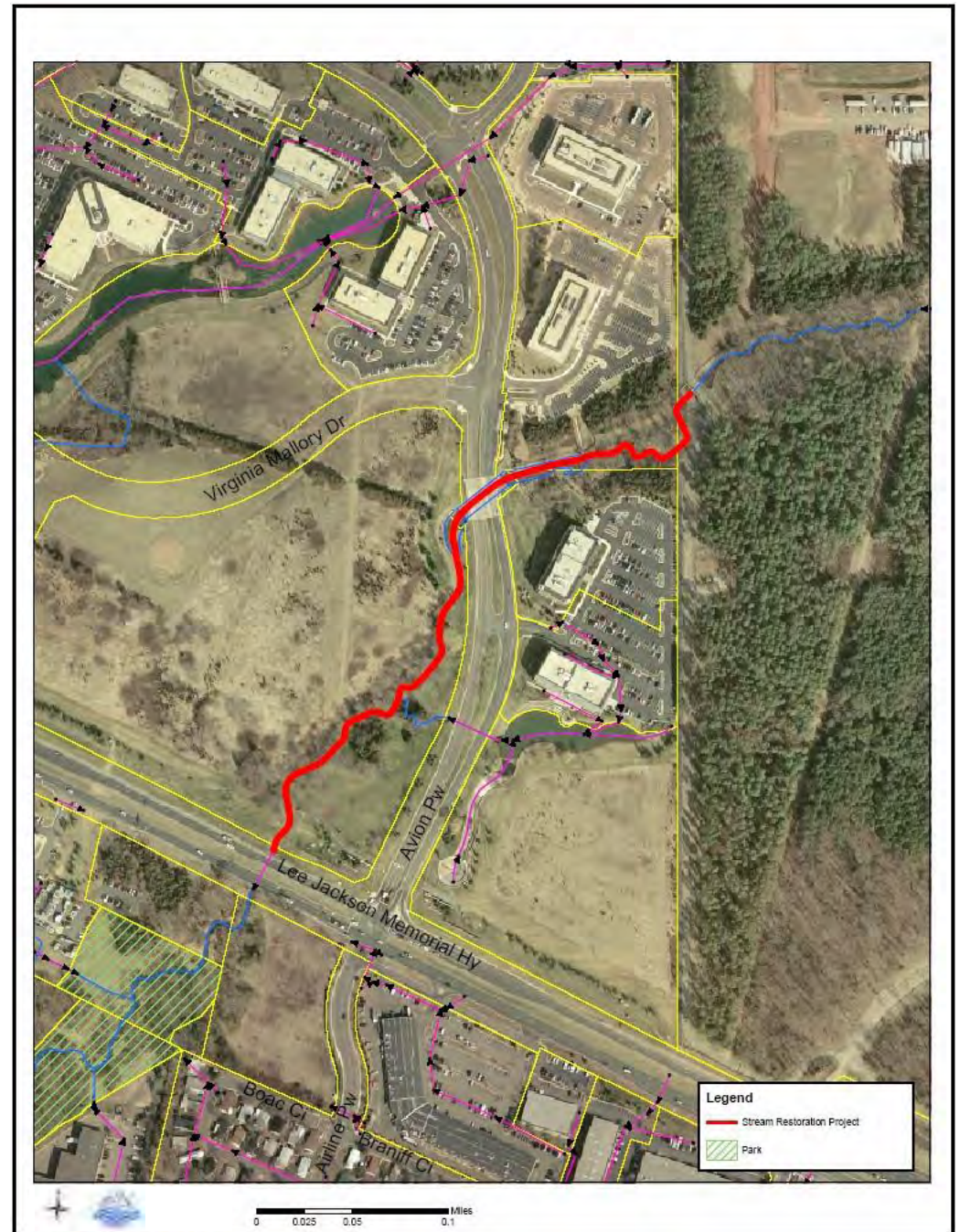
Project ID:	CU9218
Project Type:	Stream Restoration
Location:	Cub Run, Schneider Branch, and Cain Branch Tax Map – 33-4 Subdivision – Near Pleasant Valley
Description:	Stream has numerous erosion inventory lines with high impact. Located within Cub Run Stream Valley Park. Total project length is 4,660 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	4,660	Feet	\$189.63	\$883,691
Base Construction Cost				\$883,691
Mobilization (5%)				\$44,185
Subtotal 1				\$927,876
Contingency (25%)				\$231,969
Subtotal 2				\$1,159,844
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$521,930
Total				\$1,681,774
Estimated Project Cost				\$1,682,000



Project ID:	CU9219
Project Type:	Stream Restoration
Location:	Cain Branch – Upstream from Route 50, Upstream and downstream from Avion Parkway. Tax Map – 34-1, 34-3 Avion
Description:	Reach includes stream erosion inventory lines, and deficient buffers throughout the project. Located on private property. SCI = 2.9. Total project length is 2,080 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	2,080	Feet	\$245.60	\$510,840
Base Construction Cost				\$510,840
Mobilization (5%)				\$25,542
Subtotal 1				\$536,382
Contingency (25%)				\$134,096
Subtotal 2				\$670,478
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$301,715
Total				\$972,192
Estimated Project Cost				\$973,000



Project ID:	CU9220
Project Type:	Stream Restoration
Location:	Cain Branch – Upstream from Route 28 and downstream from Centreville Road Tax Map – 34-2
Description:	Erosion inventory line with impact score of 4 and deficient buffer. Located within Sully Park. Total project length is 1,320 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	1,320	Feet	\$275.76	\$364,000
Base Construction Cost				\$364,000
Mobilization (5%)				\$18,200
Subtotal 1				\$382,200
Contingency (25%)				\$95,550
Subtotal 2				\$477,750
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$214,988
Total				\$692,738
Estimated Project Cost				\$693,000



Project ID:	CU9221
Project Type:	Stream Restoration
Location:	Dead Run Tributary – Upstream from Stonecroft Boulevard Tax Map – 34-1 Subdivision – Fairwood Estates
Description:	Stream has stability rating less than 3, erosion inventory line with impact score of 5, and numerous obstructions. Located on private property near Dulles Airport. SCI = 2.6 Total project length is 2,540 linear feet, not all requires restoration.

Item	Qty	Units	Unit Cost	Total Cost
Length	2,540	Feet	\$214.91	\$545,860
Base Construction Cost				\$545,860
Mobilization (5%)				\$27,293
Subtotal 1				\$573,153
Contingency (25%)				\$143,288
Subtotal 2				\$716,441
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$322,399
Total				\$1,038,840
Estimated Project Cost				\$1,039,000



Fact Sheets

Projects CU9301 through CU9339

Cub Run Watershed Buffer Restoration Projects

Projects CU9301 through CU9339.

Project ID:	CU9301
Project Type:	Buffer Restoration
Location:	FCPA parkland in Cub Run Stream Valley Park downstream from Big Rocky Run Tax Map – 64-2, 65-1 Subdivision – Center Ridge and near Gate Post Estates
Description:	Impacted by power line mowing and clearing and Route 66 embankment.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	820	Feet	\$12.50	\$10,250
Base Construction Cost				\$10,250
Mobilization (5%)				\$513
Subtotal 1				\$10,763
Contingency (25%)				\$2,691
Subtotal 2				\$13,453
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$6,054
Total				\$19,507
Estimated Project Cost				\$20,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9302
Project Type:	Buffer Restoration
Location:	Tributary of Lower Cub Run. Located partially in FCPA parkland upstream from I-66 and regional pond C04 between Store House Court and Outpost Court Tax Map – 65-1 Subdivision – Center Ridge
Description:	Impacted by mowed areas, lawns and past clearing/construction.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	380	Feet	\$12.50	\$4,750
Base Construction Cost				\$4,750
Mobilization (5%)				\$238
Subtotal 1				\$4,988
Contingency (25%)				\$1,247
Subtotal 2				\$6,234
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$2,805
Total				\$9,040
Estimated Project Cost				\$10,000

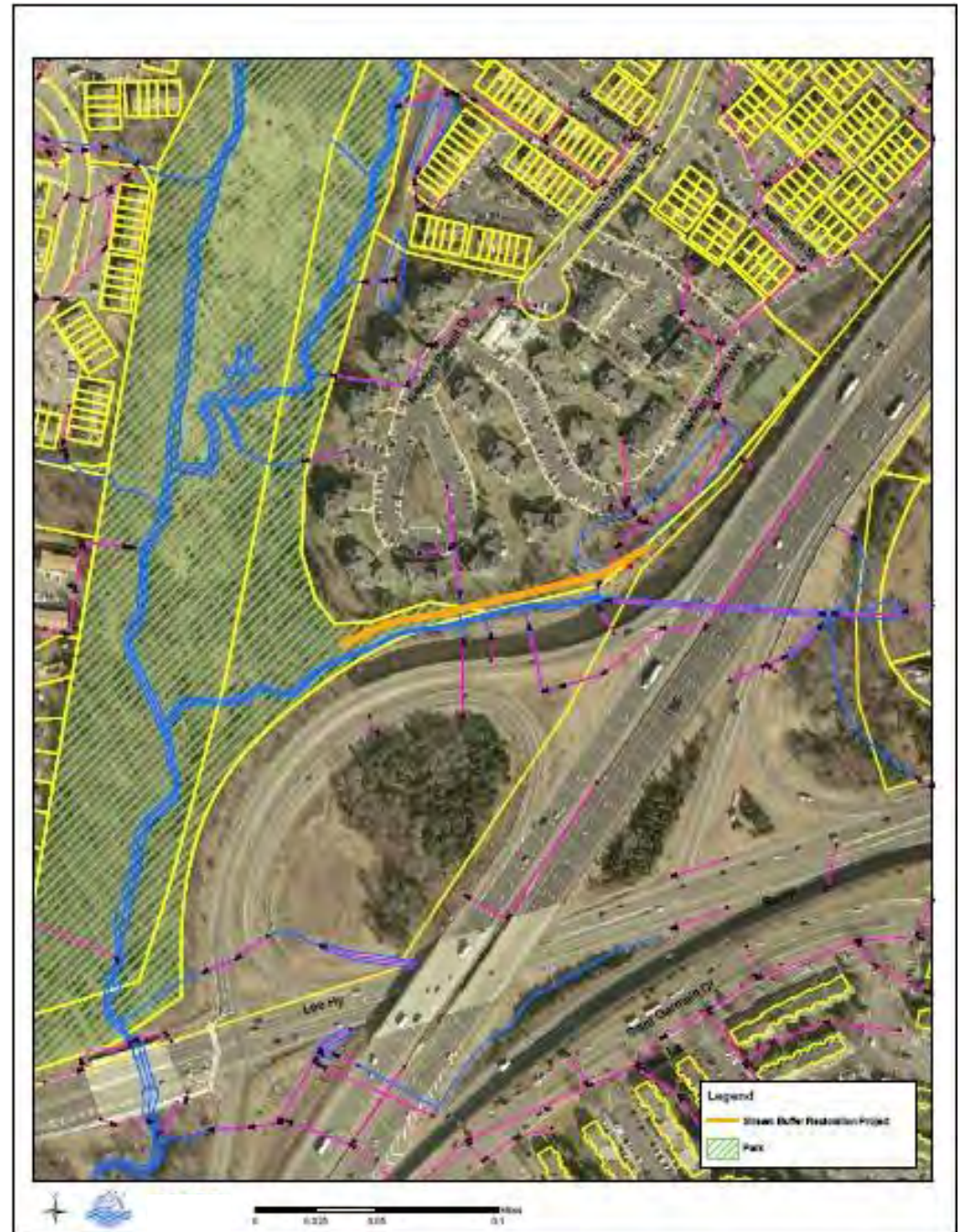
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9303
Project Type:	Buffer Restoration
Location:	Tributary to Big Rocky Run in FCPA Parkland and VDOT ROW I-66 / Route 29 Interchange, Newgate Patent Court and Havener House Way Tax Map – 54-3 Subdivision – Newgate
Description:	Impacted by mowed areas and road embankment

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	710	Feet	\$12.50	\$8,875
Base Construction Cost				\$8,875
Mobilization (5%)				\$444
Subtotal 1				\$9,319
Contingency (25%)				\$2,330
Subtotal 2				\$11,648
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$5,242
Total				\$16,890
Estimated Project Cost				\$17,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9304
Project Type:	Buffer Restoration
Location:	FCPA Parkland in Big Rocky Run Stream Valley Park upstream and downstream from Awbrey Patent Drive Tax Map – 54-1 Subdivision – Newgate and Rocky Run
Description:	Impacted by mowed and cleared areas.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	980	Feet	\$12.50	\$12,250
Base Construction Cost				\$12,250
Mobilization (5%)				\$613
Subtotal 1				\$12,863
Contingency (25%)				\$3,216
Subtotal 2				\$16,078
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$7,235
Total				\$23,313
Estimated Project Cost				\$24,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9305
Project Type:	Buffer Restoration
Location:	FCPA Parkland in Big Rocky Run Stream Valley Park downstream from Braddock Road Tax Map – 54-1 Subdivision – Newgate and Rocky Run
Description:	Impacted by mowed and cleared areas.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	700	Feet	\$12.50	\$8,750
Base Construction Cost				\$8,750
Mobilization (5%)				\$438
Subtotal 1				\$9,188
Contingency (25%)				\$2,297
Subtotal 2				\$11,484
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$5,168
Total				\$16,652
Estimated Project Cost				\$17,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9306
Project Type:	Buffer Restoration
Location:	Tributary to Big Rocky Run in private property upstream from Braddock Road and crossing Cedar Break Drive Tax Map – 54-1 Subdivision – Sequoia Farms
Description:	Impacted by lawns, mowed areas and clearing.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	3,820	Feet	\$12.50	\$47,750
Base Construction Cost				\$47,750
Mobilization (5%)				\$2,388
Subtotal 1				\$50,138
Contingency (25%)				\$12,534
Subtotal 2				\$62,672
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$28,202
Total				\$90,874
Estimated Project Cost				\$91,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9307
Project Type:	Buffer Restoration
Location:	<p>Unnamed tributary to Big Rocky Run partially in FCPA Parkland off Ellicott Court and downstream from Northbourne Drive</p> <p>Tax Map – 54-2</p> <p>Subdivision – Cabell’s Mill, Fair Lakes Chase II, Hawthorne Forest, Hidden Creek at Fair Lakes</p>
Description:	Impacted by mowed areas, clearing and lawns.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	1,950	Feet	\$12.50	\$24,375
Base Construction Cost				\$24,375
Mobilization (5%)				\$1,219
Subtotal 1				\$25,594
Contingency (25%)				\$6,398
Subtotal 2				\$31,992
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$14,396
Total				\$46,389
Estimated Project Cost				\$47,000

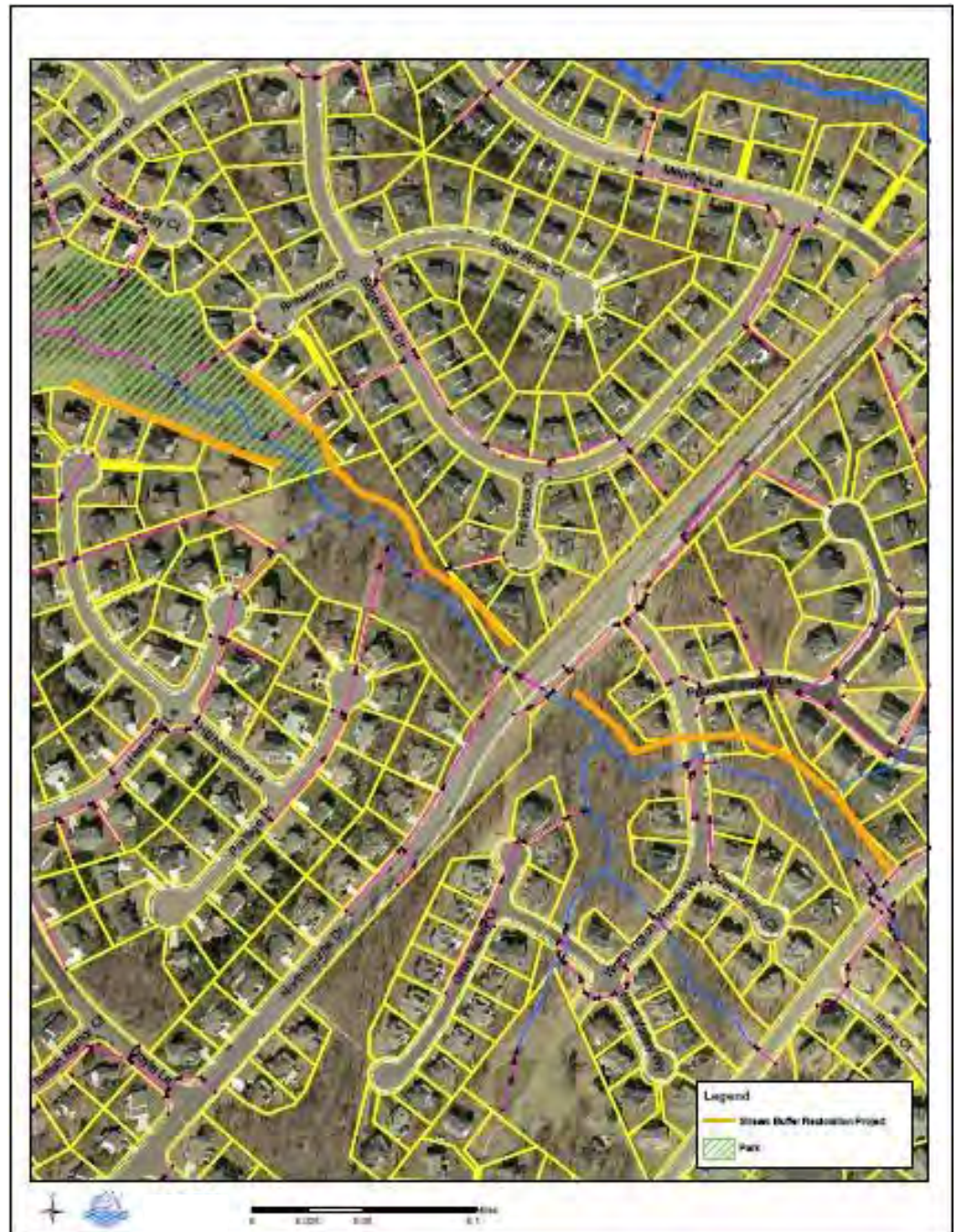
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9308
Project Type:	Buffer Restoration
Location:	Partially in FCPA Parkland downstream from Northbourne Drive – upstream from region pond C30 Tax Map – 54-2, 55-1 Subdivision – Big Rocky Forest, Devereaux Estates, Fair Lakes Chase, Hawthorne Forest, Poplar Tree Estates
Description:	Tributary to Big Rocky Run, Impacted by mowed areas and lawns.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	2,420	Feet	\$12.50	\$30,250
Base Construction Cost				\$30,250
Mobilization (5%)				\$1,513
Subtotal 1				\$31,763
Contingency (25%)				\$7,941
Subtotal 2				\$39,703
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$17,866
Total				\$57,570
Estimated Project Cost				\$58,000

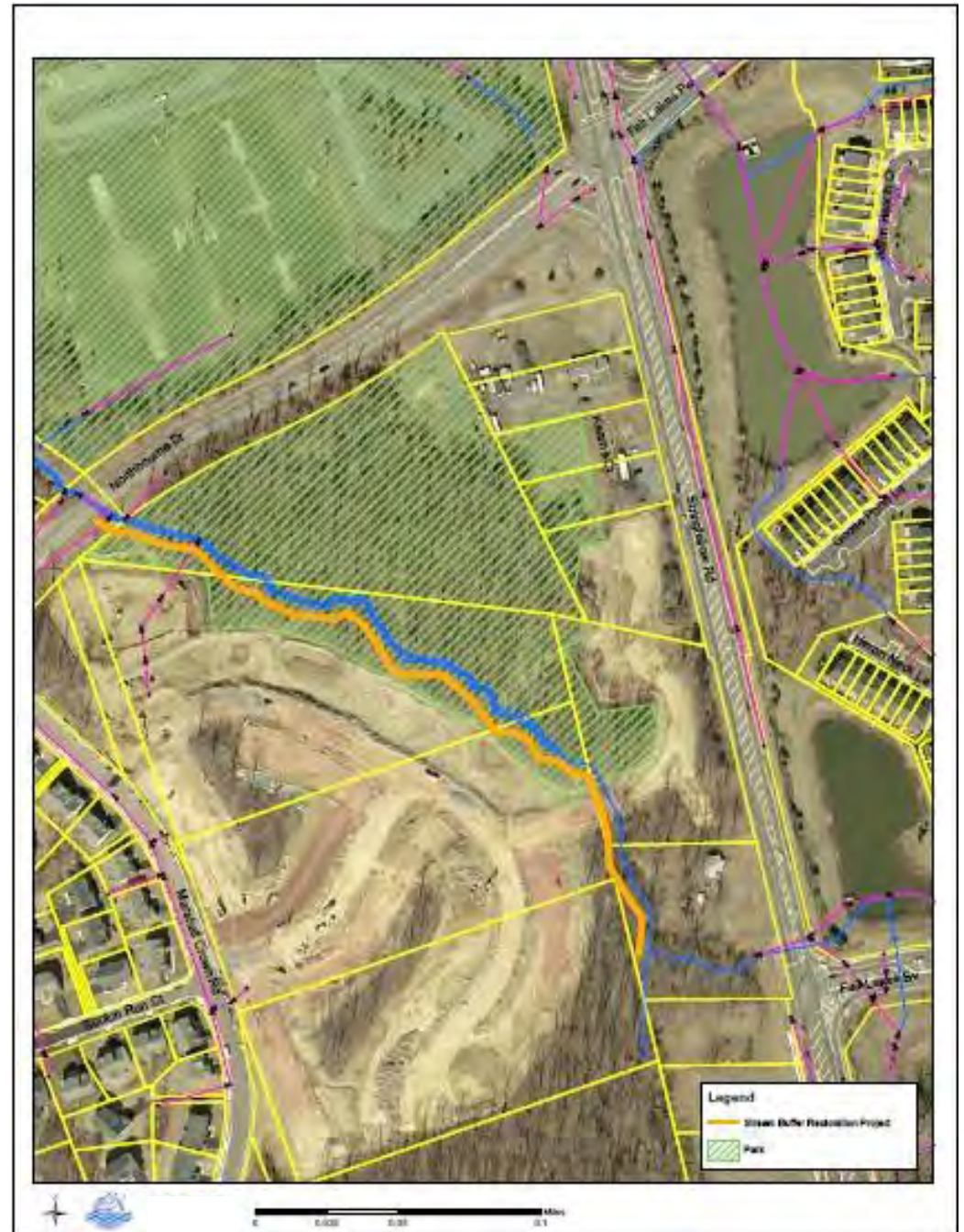
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9309
Project Type:	Buffer Restoration
Location:	Unnamed tributary to Big Rocky Run in FCPA Parkland between Northbourne Drive and Stringfellow Road Tax Map - 55-1 Subdivision – Fair Lakes Crossing, Poplar Tree Estates
Description:	Impacted by mowed areas and new construction.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	1,460	Feet	\$12.50	\$18,250
Base Construction Cost				\$18,250
Mobilization (5%)				\$913
Subtotal 1				\$19,163
Contingency (25%)				\$4,791
Subtotal 2				\$23,953
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$10,779
Total				\$34,732
Estimated Project Cost				\$35,000

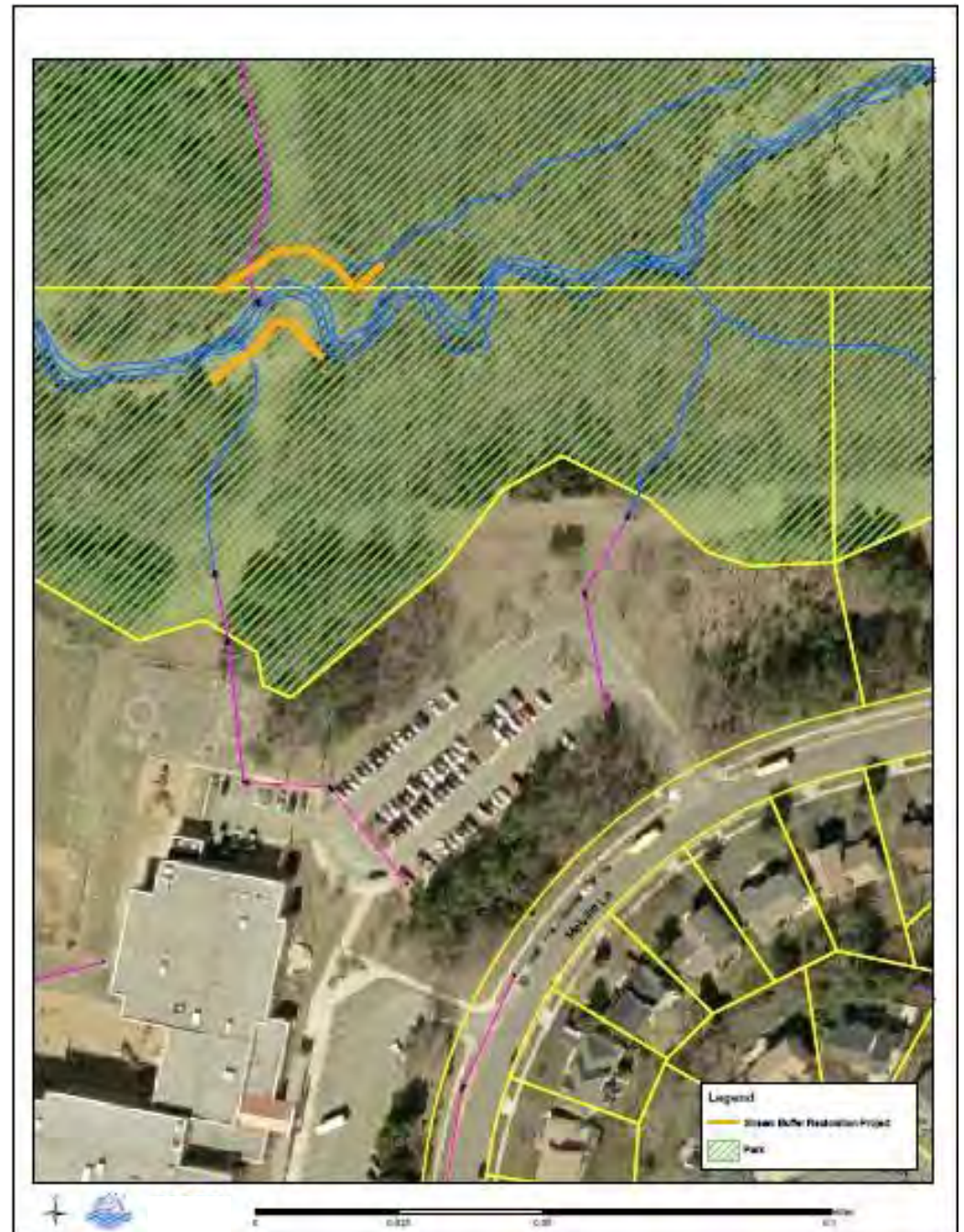
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9310
Project Type:	Buffer Restoration
Location:	FCPA parkland in Rocky Run Stream Valley Park downstream from Stringfellow Road Tax Map – 45-3 Subdivision – Poplar Tree Estates
Description:	Impacted by utility right of way clearing and mowing

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	330	Feet	\$12.50	\$4,125
Base Construction Cost				\$4,125
Mobilization (5%)				\$206
Subtotal 1				\$4,331
Contingency (25%)				\$1,083
Subtotal 2				\$5,414
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$2,436
Total				\$7,850
Estimated Project Cost				\$8,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9311
Project Type:	Buffer Restoration
Location:	Unnamed tributary to Big Rocky Run in FCPA parkland in Rocky Run Stream Valley Park Downstream from Point Pleasant Drive Tax Map 45-3 Subdivision – Poplar Tree Estates
Description:	Impacted by lawns and clearing.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	270	Feet	\$12.50	\$3,375
Base Construction Cost				\$3,375
Mobilization (5%)				\$169
Subtotal 1				\$3,544
Contingency (25%)				\$886
Subtotal 2				\$4,430
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$1,993
Total				\$6,423
Estimated Project Cost				\$7,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9312
Project Type:	Buffer Restoration
Location:	Unnamed tributary in FCPA parkland in Ellanor C. Lawrence Park downstream from Stringfellow Road and Point Pleasant Road Tax Map – 45-3 Subdivision – Poplar Tree Estates
Description:	Impacted by lawns and clearing

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	230	Feet	\$12.50	\$2,875
Base Construction Cost				\$2,875
Mobilization (5%)				\$144
Subtotal 1				\$3,019
Contingency (25%)				\$755
Subtotal 2				\$3,773
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$1,698
Total				\$5,471
Estimated Project Cost				\$6,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9313
Project Type:	Buffer Restoration
Location:	Big Rocky Run in FCPA Parkland in Rocky Run Stream Valley Park and Greenbriar Park upstream from Stringfellow Road near Greenbriar Tax Map – 45-3 Subdivision – Near Greenbriar
Description:	Impacted by lawns and trail

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	2,630	Feet	\$12.50	\$32,875
Base Construction Cost				\$32,875
Mobilization (5%)				\$1,644
Subtotal 1				\$34,519
Contingency (25%)				\$8,630
Subtotal 2				\$43,148
Engineering design, surveys, land acquisition, utility locations, and permits (45%)			\$19,417	
Total				\$62,565
Estimated Project Cost				\$63,000

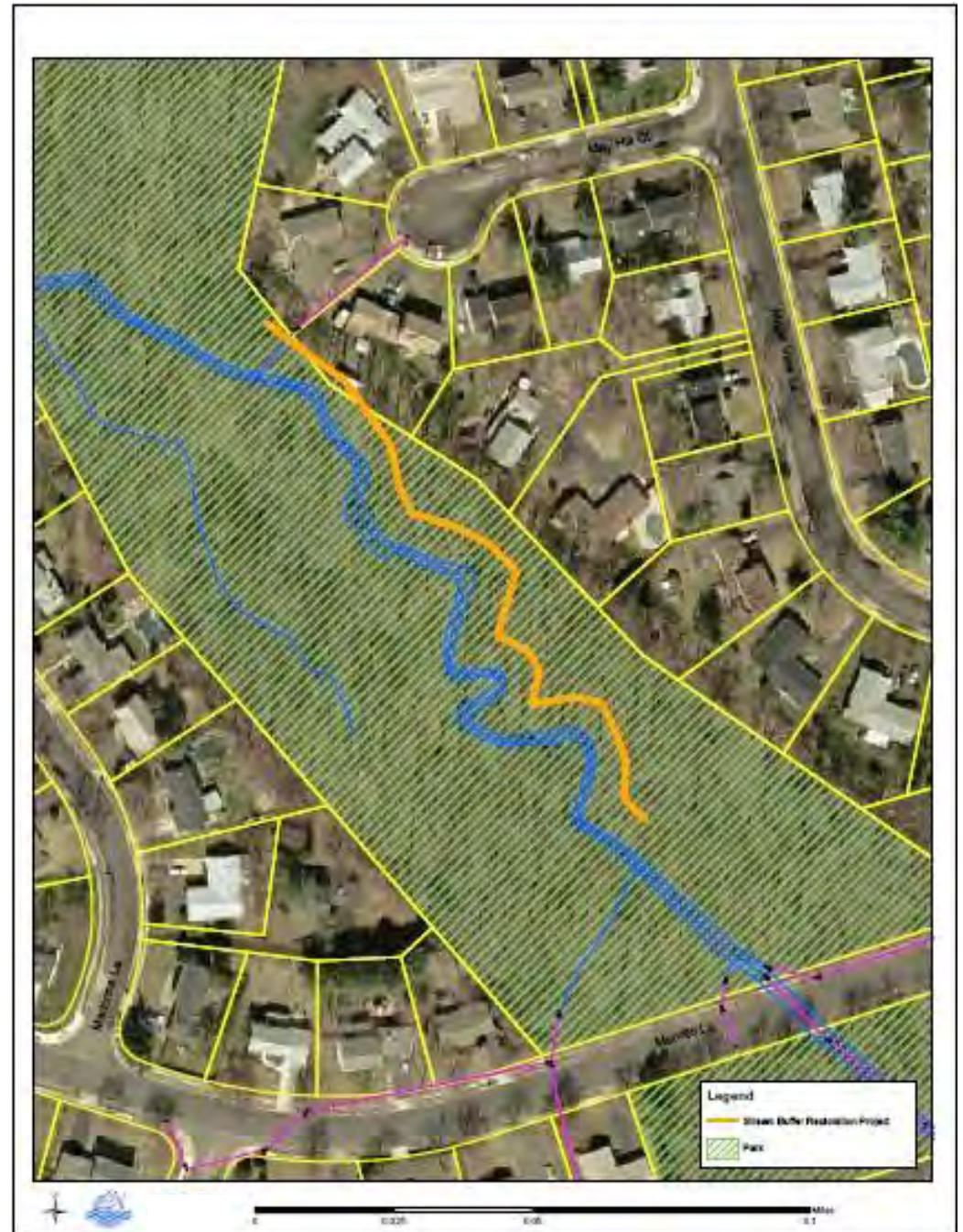
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9314
Project Type:	Buffer Restoration
Location:	Tributary to Big Rocky Run in FCPA parkland in Big Rocky Run Stream Valley Park downstream from Melville Lane between Madonna Lane and Maple View Lane Tax Map 45-3 Subdivision – Green Briar
Description:	Impacted by lawns and clearing

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Buffer Restoration	700	Feet	\$12.50	\$8,750
Base Construction Cost				\$8,750
Mobilization (5%)				\$438
Subtotal 1				\$9,188
Contingency (25%)				\$2,297
Subtotal 2				\$11,484
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$5,168
Total				\$16,652
Estimated Project Cost				\$17,000

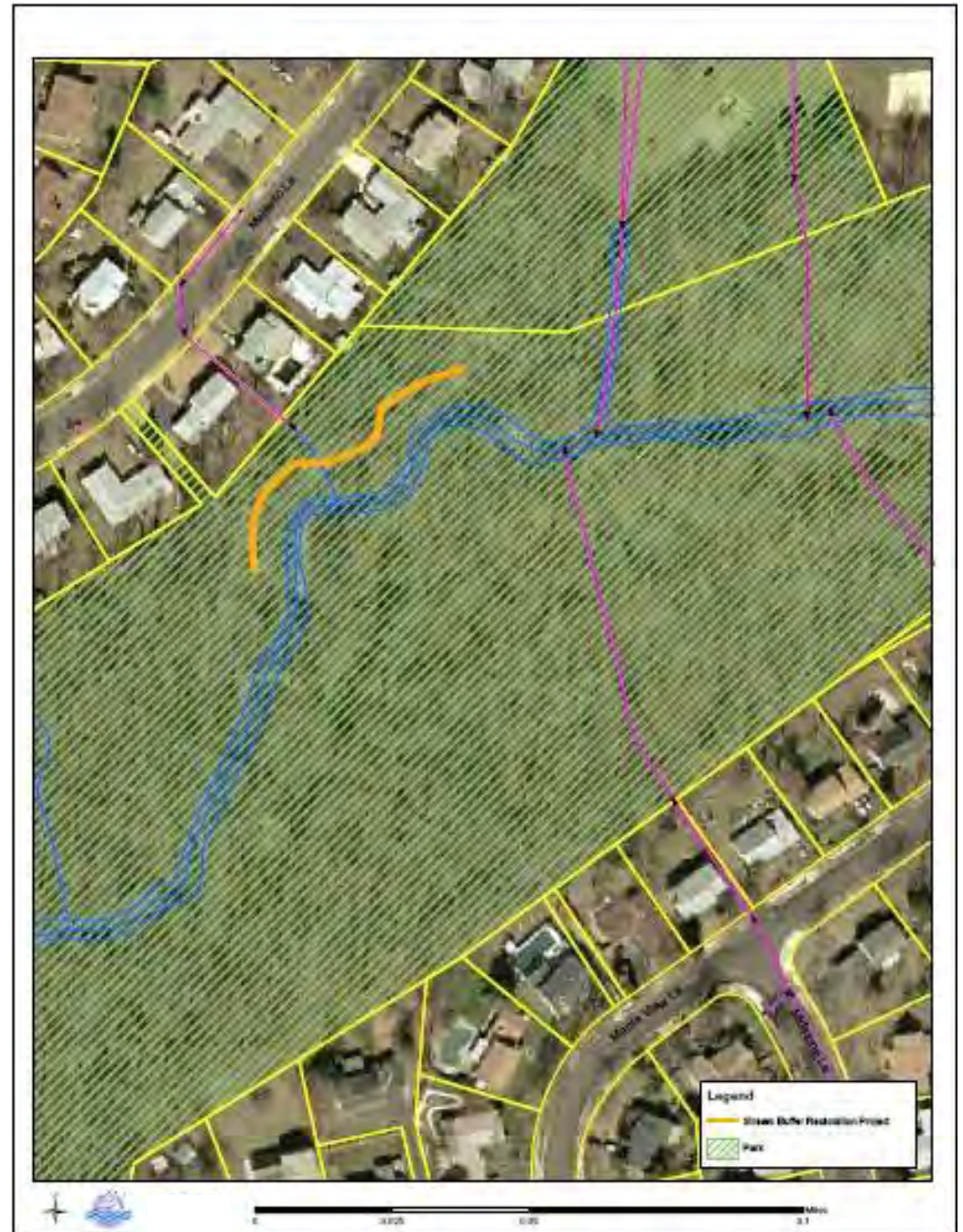
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9315
Project Type:	Buffer Restoration
Location:	Big Rocky Run in FCPA parkland in Rocky Run Stream Valley Park downstream from Middle Ridge Drive near Majestic Lane Tax Map – 45-3 Subdivision - Near Greenbriar
Description:	Impacted by lawns and clearing

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	330	Feet	\$12.50	\$4,125
Base Construction Cost				\$4,125
Mobilization (5%)				\$206
Subtotal 1				\$4,331
Contingency (25%)				\$1,083
Subtotal 2				\$5,414
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$2,436
Total				\$7,850
Estimated Project Cost				\$8,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9316
Project Type:	Buffer Restoration
Location:	Tributary to Middle Cub run partially in FCPA parkland in Cub Run Stream Valley Park. Virginia Run - Downstream from Pleasant Valley Rd. and crossing Hidden Canyon Road Tax Map – 53-3, 53-4 Subdivision – Pleasant Hill and Westport
Description:	Impacted by mowed areas.

Project Cost Estimate				
Item	Qty*	Units	Unit Cost	Total Cost
Stream Restoration	3,550	Feet	\$12.50	\$44,375
Base Construction Cost				\$44,375
Mobilization (5%)				\$2,219
Subtotal 1				\$46,594
Contingency (25%)				\$11,648
Subtotal 2				\$58,242
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$26,209
Total				\$84,451
Estimated Project Cost				\$85,000

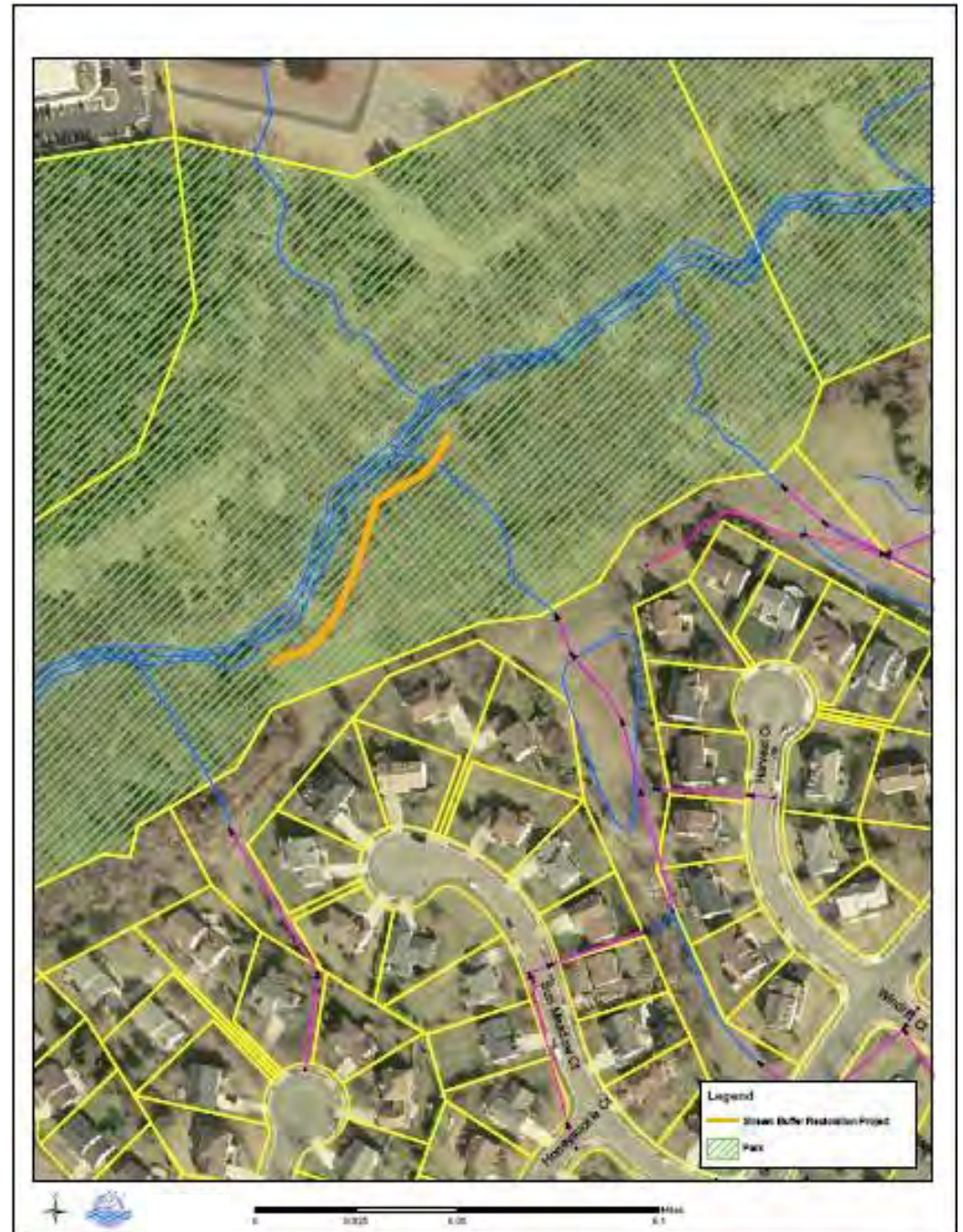
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9317
Project Type:	Buffer Restoration
Location:	Flatlick Branch in FCPA parkland in Flatlick Stream Valley Park upstream from Braddock Road near Sun Meadow Court Tax Map – 43-4 Subdivision – Sully Station
Description:	Impacted by trail, mowed areas and clearing

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	400	Feet	\$12.50	\$5,000
Base Construction Cost				\$5,000
Mobilization (5%)				\$250
Subtotal 1				\$5,250
Contingency (25%)				\$1,313
Subtotal 2				\$6,563
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$2,953
Total				\$9,516
Estimated Project Cost				\$10,000

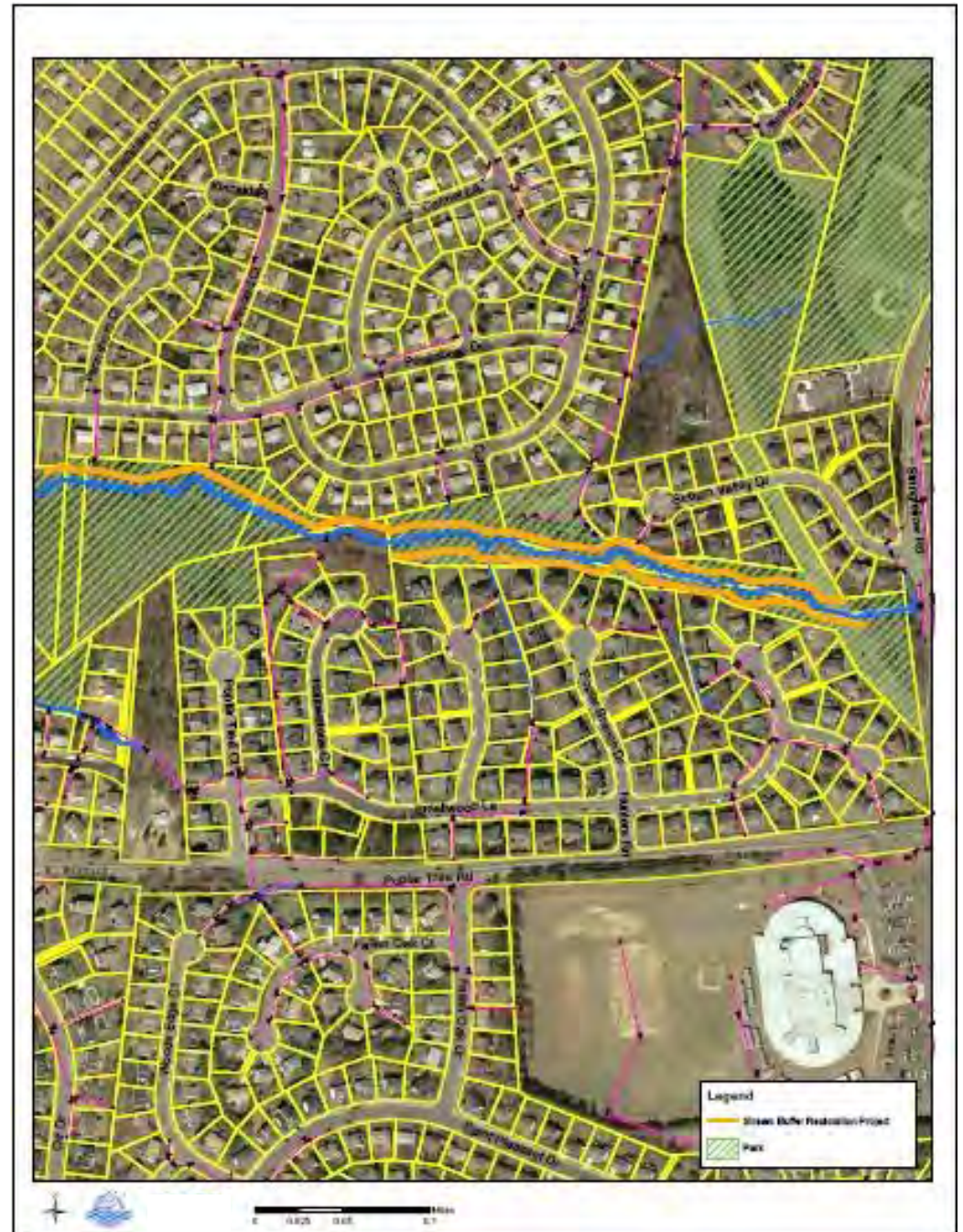
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9319
Project Type:	Buffer Restoration
Location:	Frog Branch in FCPA Frog Branch Stream Valley Park downstream from Stringfellow Road Tax Map – 44-2, 45-1 Subdivision – Brookfield, Hunters Run Section 1, Marion Woods, Poplar Tree Woods
Description:	Impacted by lawns and clearing

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	4,030	Feet	\$12.50	\$50,375
Base Construction Cost				\$50,375
Mobilization (5%)				\$2,519
Subtotal 1				\$52,894
Contingency (25%)				\$13,223
Subtotal 2				\$66,117
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$29,753
Total				\$95,870
Estimated Project Cost				\$96,000

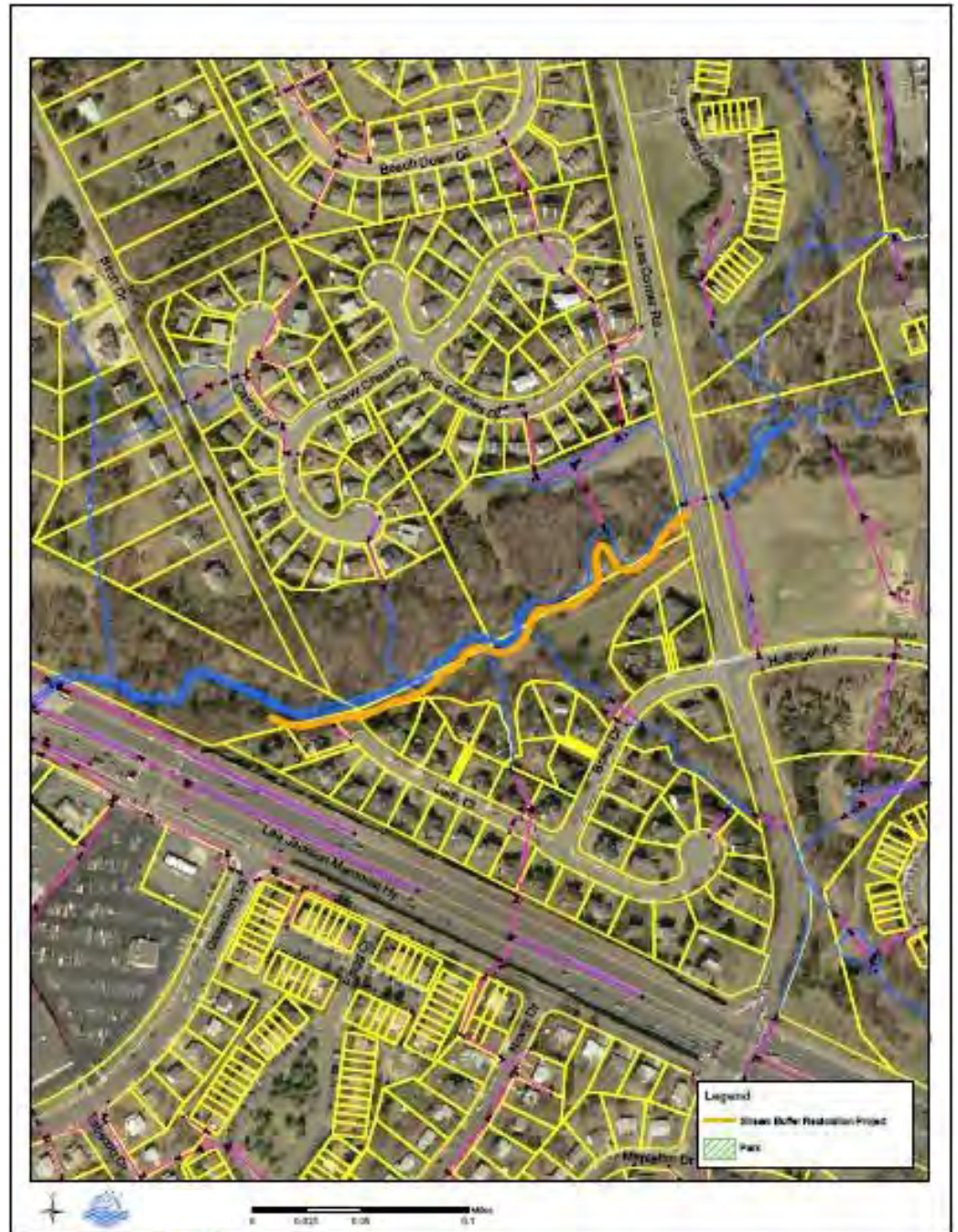
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9320
Project Type:	Buffer Restoration
Location:	Flatlick Branch in private property upstream from Rt. 50 and downstream from Lees Corner Road Tax Map – 34-4, 35-3 Subdivisions – Armfield Estates and Fair Oaks Farms
Description:	Impacted by mowed areas and nearby development.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	1,350	Feet	\$12.50	\$16,875
Base Construction Cost				\$16,875
Mobilization (5%)				\$844
Subtotal 1				\$17,719
Contingency (25%)				\$4,430
Subtotal 2				\$22,148
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$9,967
Total				\$32,115
Estimated Project Cost				\$33,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9321
Project Type:	Buffer Restoration
Location:	Oxlick Brach in FCPA parkland downstream from Stringfellow Road near Brandy Station Road Tax Map – 35-3 Subdivision – Chantilly Farm Section 2 and Foxfield
Description:	Impacted by natural gas line utility right of way clearing and mowing

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	430	Feet	\$12.50	\$5,375
Base Construction Cost				\$5,375
Mobilization (5%)				\$269
Subtotal 1				\$5,644
Contingency (25%)				\$1,411
Subtotal 2				\$7,055
Engineering design, surveys, land acquisition, utility locations, and permits (45%)			\$3,175	
Total				\$10,229
Estimated Project Cost				\$11,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9322
Project Type:	Buffer Restoration
Location:	Oxlick Branch downstream from Stringfellow Road Tax Map 35-3 Subdivision – Chantilly Farm Section 2 and Foxfield
Description:	Impacted by mowed areas, clearing and stormwater pond construction

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	430	Feet	\$12.50	\$5,375
Base Construction Cost				\$5,375
Mobilization (5%)				\$269
Subtotal 1				\$5,644
Contingency (25%)				\$1,411
Subtotal 2				\$7,055
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$3,175
Total				\$10,229
Estimated Project Cost				\$11,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9323
Project Type:	Buffer Restoration
Location:	Oxlick Branch on private property downstream from Fairfax County Parkway near Freehill Lane Tax Map – 45-2 Subdivision – Highland Oaks
Description:	Impacted by lawns and clearing

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	110	Feet	\$12.50	\$1,375
Base Construction Cost				\$1,375
Mobilization (5%)				\$69
Subtotal 1				\$1,444
Contingency (25%)				\$361
Subtotal 2				\$1,805
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$812
Total				\$2,617
Estimated Project Cost				\$3,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9324
Project Type:	Buffer Restoration
Location:	Flatlick Branch in private property upstream from Lees Corner Road Tax Map – 35-3 Subdivision – Foxfield
Description:	Impacted by utility right of way clearing and mowing

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	380	Feet	\$12.50	\$4,750
Base Construction Cost				\$4,750
Mobilization (5%)				\$238
Subtotal 1				\$4,988
Contingency (25%)				\$1,247
Subtotal 2				\$6,234
Engineering design, surveys, land acquisition, utility locations, and permits (45%)			\$2,805	
Total				\$9,040
Estimated Project Cost				\$10,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9325
Project Type:	Buffer Restoration
Location:	Flatlick Branch in private property downstream from Fairfax County Parkway. Near Broomsedge Court, Oakshade Court and Majestic Pine Lane Tax Map – 35-3 Subdivision – Franklin Glen
Description:	Flatlick Branch, Impacted by mowed and cleared areas and nearby development.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	990	Feet	\$12.50	\$12,375
Base Construction Cost				\$12,375
Mobilization (5%)				\$619
Subtotal 1				\$12,994
Contingency (25%)				\$3,248
Subtotal 2				\$16,242
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$7,309
Total				\$23,551
Estimated Project Cost				\$24,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9326
Project Type:	Buffer Restoration
Location:	Flatlick Branch tributary in private property adjacent to Fairfax County Parkway upstream from Tuckaway Drive Tax Map – 35-1, 35-3 Subdivision – Franklin Farm and Franklin Glen Section 11
Description:	Flatlick Branch tributary, Impacted by mowed areas, clearing and road construction

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	860	Feet	\$12.50	\$10,750
Base Construction Cost				\$10,750
Mobilization (5%)				\$538
Subtotal 1				\$11,288
Contingency (25%)				\$2,822
Subtotal 2				\$14,109
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$6,349
Total				\$20,459
Estimated Project Cost				\$21,000

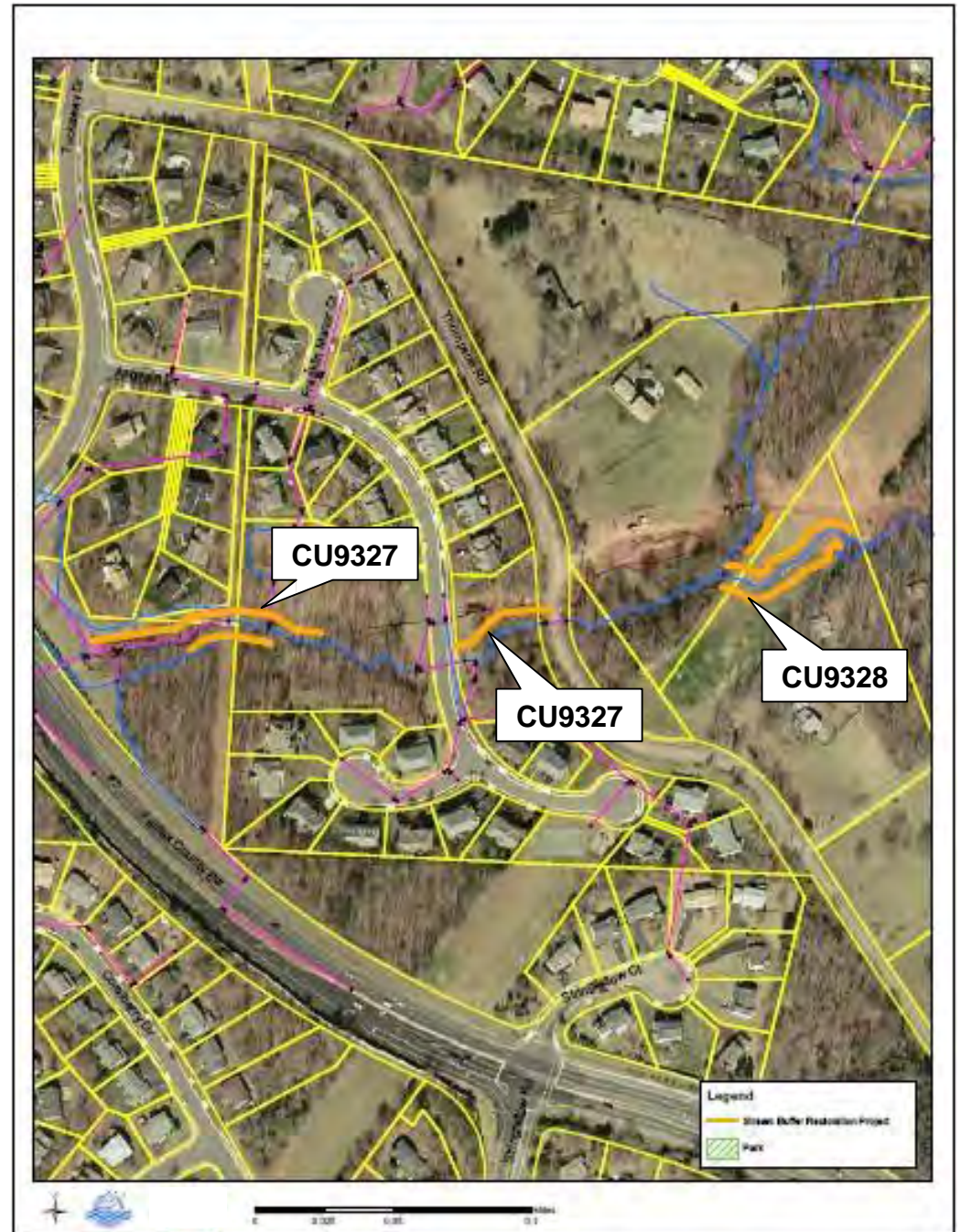
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9327
Project Type:	Buffer Restoration
Location:	Flatlick Branch in private property upstream from Fairfax County Parkway and downstream from Thompson Road in two segments Tax Map – 35-3 Subdivision – Franklin Glen Section 11 and Franklin Manor
Description:	Impacted by mowed areas and clearing

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	840	Feet	\$12.50	\$10,500
Base Construction Cost				\$10,500
Mobilization (5%)				\$525
Subtotal 1				\$11,025
Contingency (25%)				\$2,756
Subtotal 2				\$13,781
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$6,202
Total				\$19,983
Estimated Project Cost				\$20,000

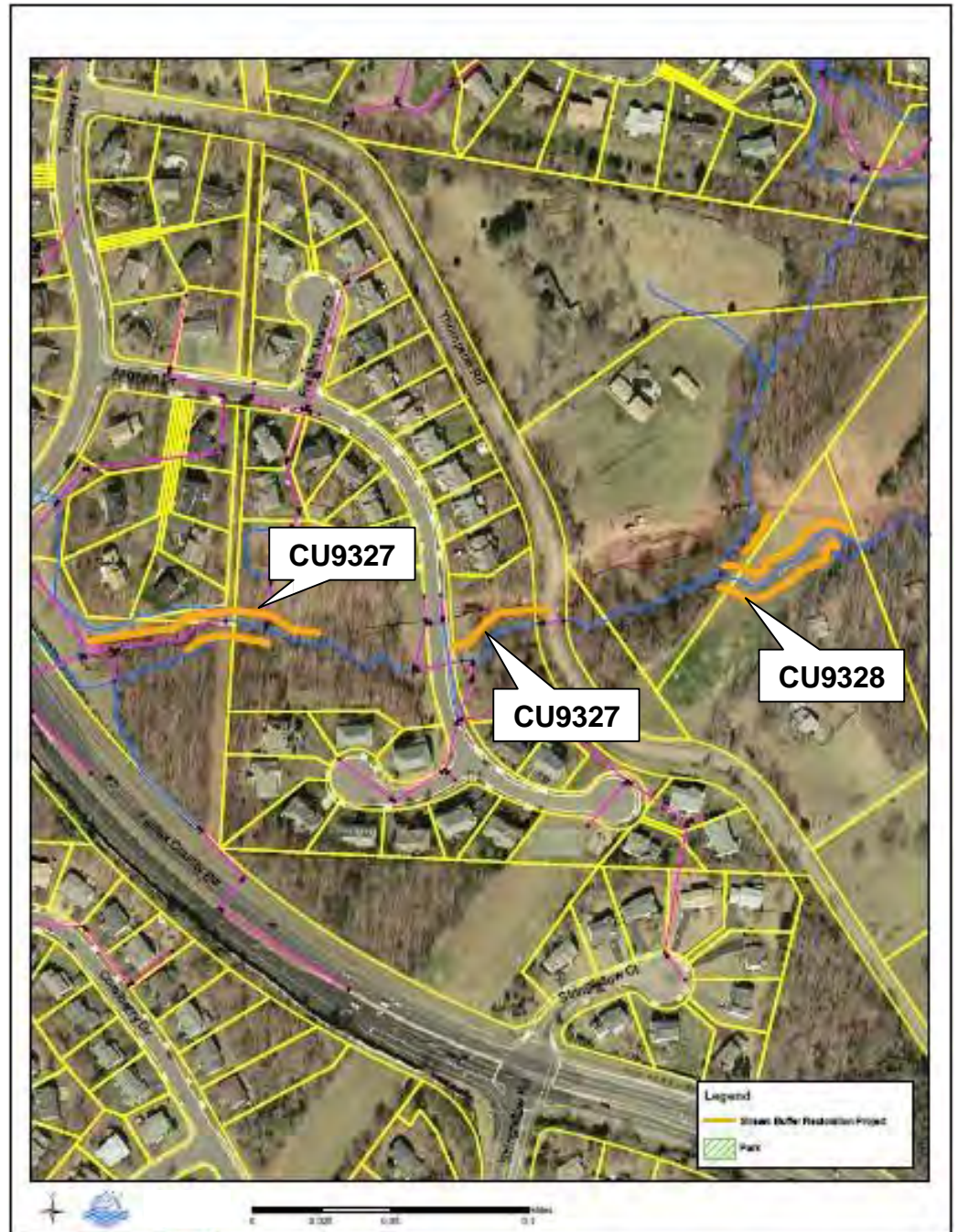
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9328
Project Type:	Buffer Restoration
Location:	Flatlick Branch on private property upstream from Thompson Road Tax Map – 35-3
Description:	Impacted by natural gas line clearing and mowing

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	660	Feet	\$12.50	\$8,250
Base Construction Cost				\$8,250
Mobilization (5%)				\$413
Subtotal 1				\$8,663
Contingency (25%)				\$2,166
Subtotal 2				\$10,828
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$4,873
Total				\$15,701
Estimated Project Cost				\$16,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9329
Project Type:	Buffer Restoration
Location:	Flatlick Branch tributary on private property within Franklin Manor near Rose Grove Drive upstream from existing lake Tax Map – 35-4 Subdivision – Oak Hill Reserve
Description:	Impacted by new construction.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	2,000	Feet	\$12.50	\$25,000
Base Construction Cost				\$25,000
Mobilization (5%)				\$1,250
Subtotal 1				\$26,250
Contingency (25%)				\$6,563
Subtotal 2				\$32,813
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$14,766
Total				\$47,578
Estimated Project Cost				\$48,000

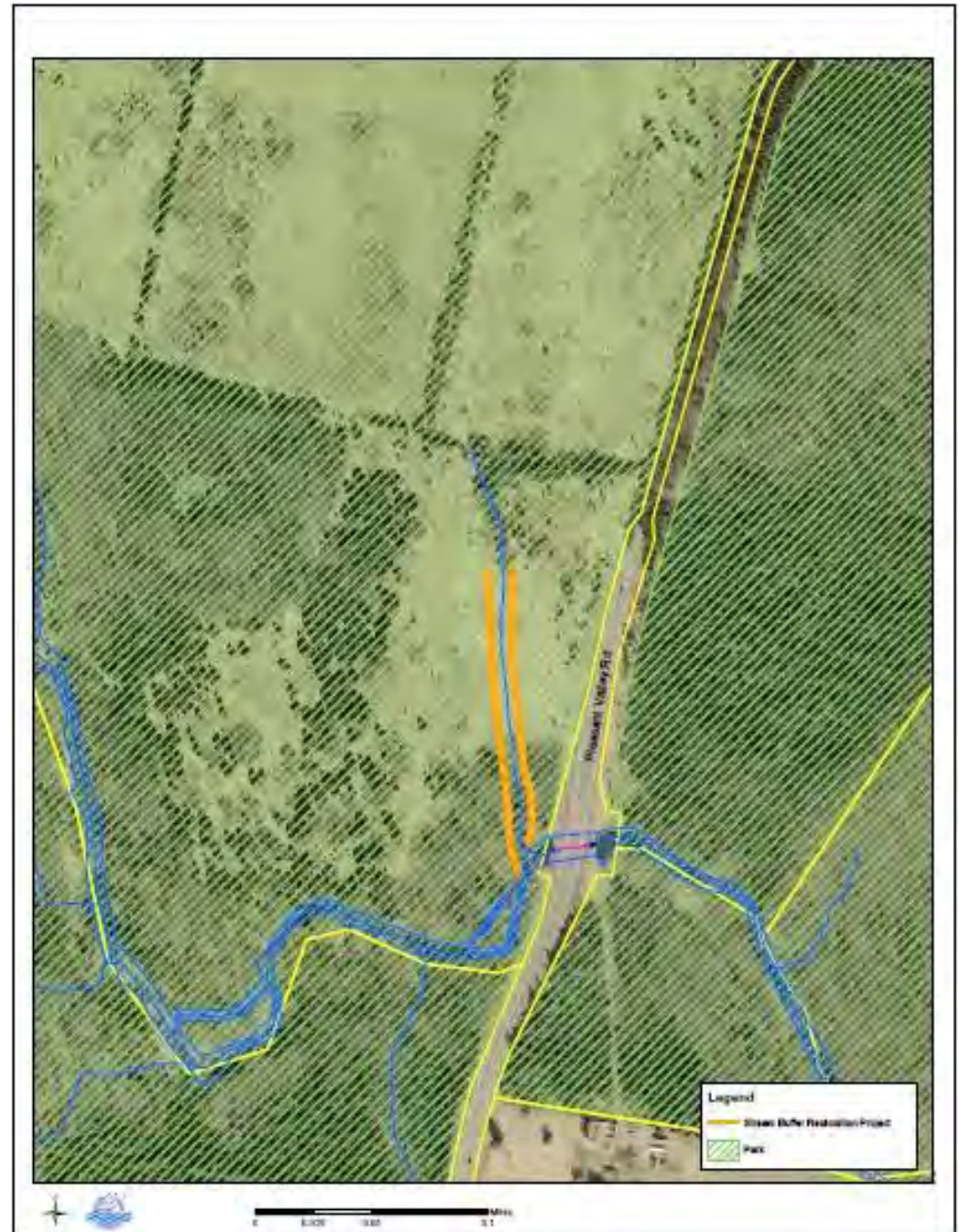
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9330
Project Type:	Buffer Restoration
Location:	Unnamed tributary to Ellick Run in FCPA parkland in Sully Woodlands near Pleasant Valley Road immediately north of Ellick Run Tax Map – 43-3
Description:	Impacted by field and clearing

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	1,350	Feet	\$12.50	\$16,875
Base Construction Cost				\$16,875
Mobilization (5%)				\$844
Subtotal 1				\$17,719
Contingency (25%)				\$4,430
Subtotal 2				\$22,148
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$9,967
Total				\$32,115
Estimated Project Cost				\$33,000

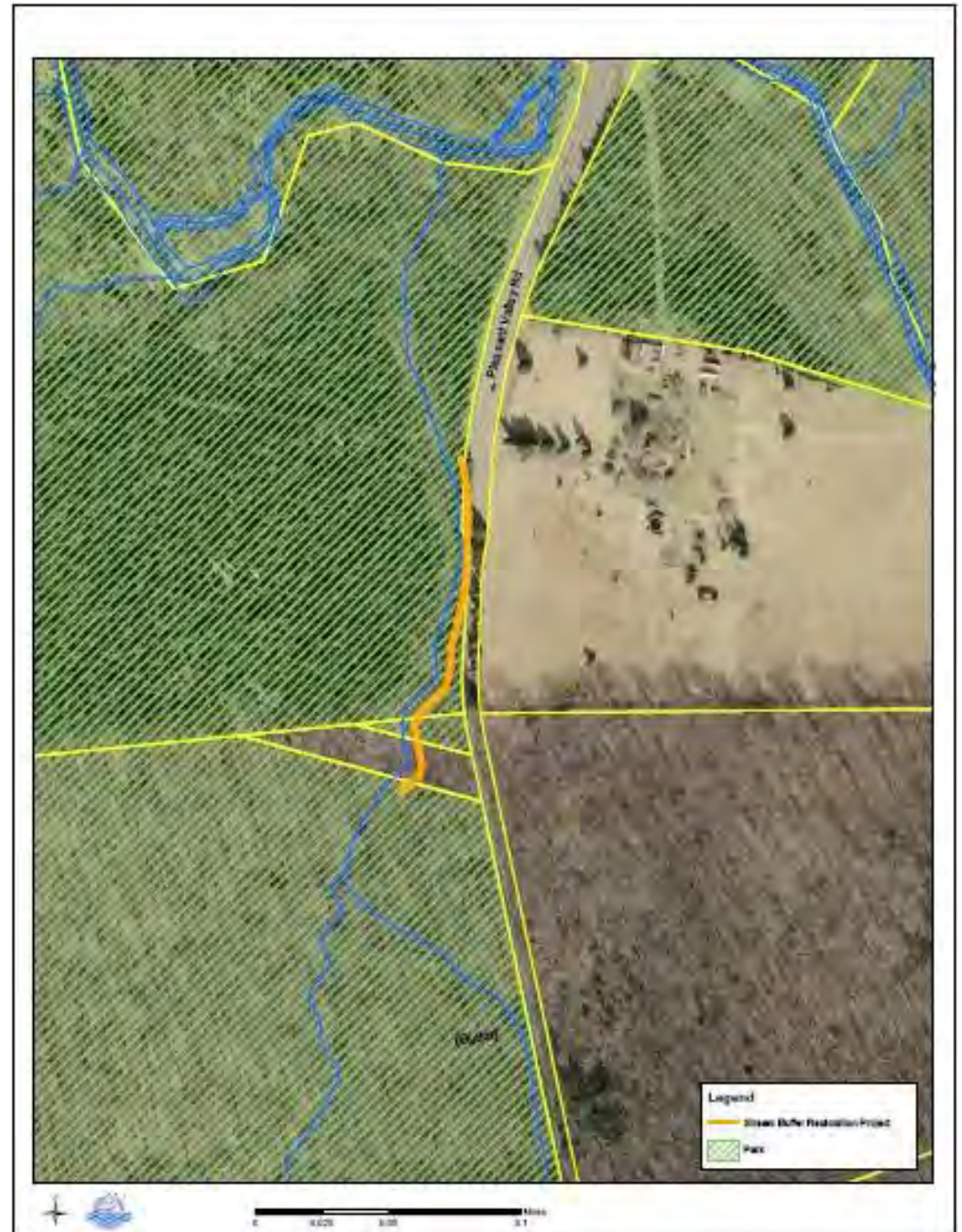
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9331
Project Type:	Buffer Restoration
Location:	Unnamed tributary to Elklick Run in FCWA Parkland within Sully Woodlands adjacent to Pleasant Valley Road south of Elklick Run Tax Map – 43-3
Description:	Impacted by roadway.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	720	Feet	\$12.50	\$9,000
Base Construction Cost				\$9,000
Mobilization (5%)				\$450
Subtotal 1				\$9,450
Contingency (25%)				\$2,363
Subtotal 2				\$11,813
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$5,316
Total				\$17,128
Estimated Project Cost				\$18,000

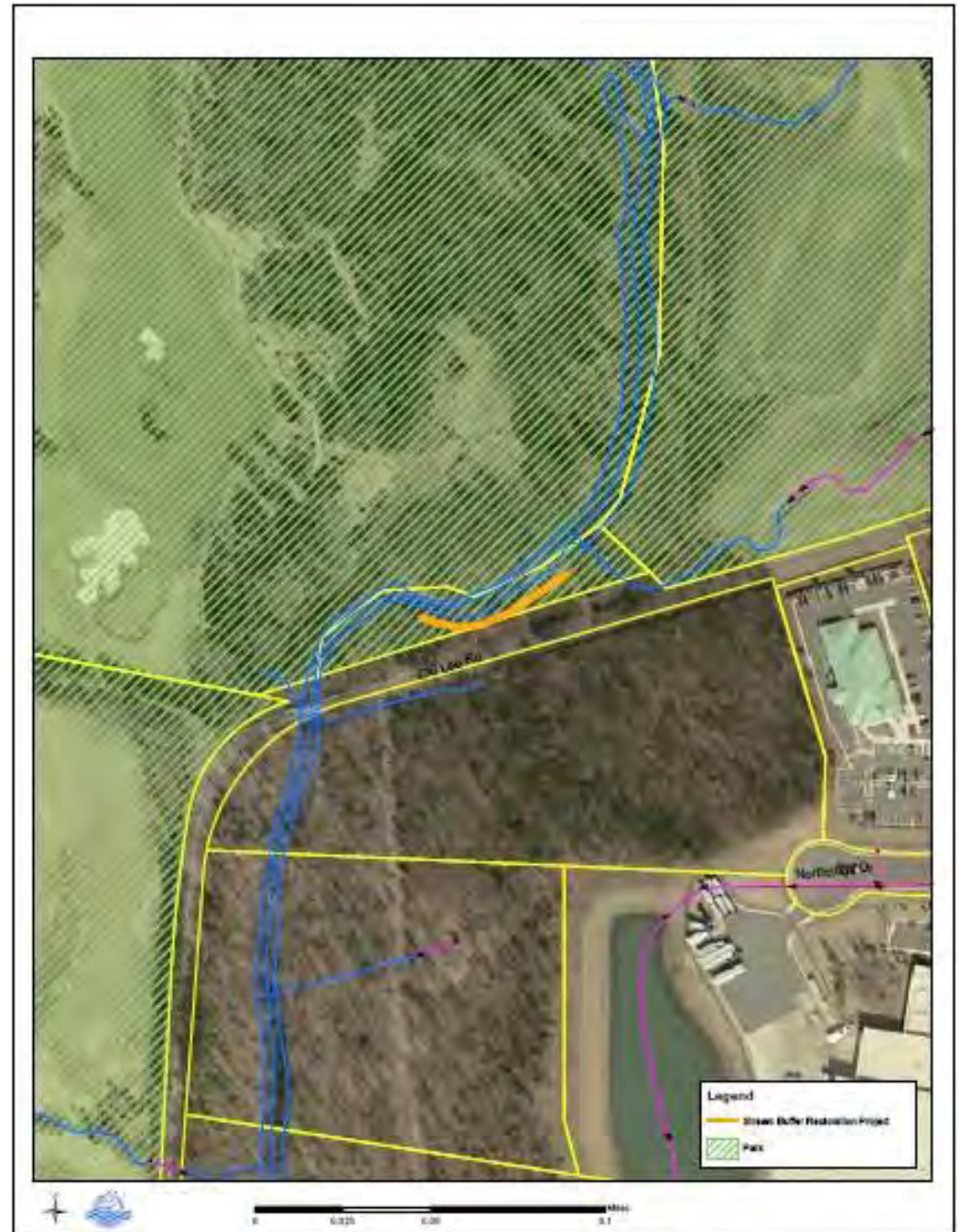
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9332
Project Type:	Buffer Restoration
Location:	Cub Run in FCPA parkland at Old Lee Road near Westfield High School Tax Map – 43-2
Description:	Impacted by roadway and construction of stormwater utilities.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	250	Feet	\$12.50	\$3,125
Base Construction Cost				\$3,125
Mobilization (5%)				\$156
Subtotal 1				\$3,281
Contingency (25%)				\$820
Subtotal 2				\$4,102
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$1,846
Total				\$5,947
Estimated Project Cost				\$6,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9333
Project Type:	Buffer Restoration
Location:	FCPA Parkland in Cub Run Stream Valley Park along Schneider Branch upstream from Cub Run and downstream from Stonecroft Boulevard Tax Map – 33-4 Dulles International Business Center
Description:	Impacted by fields and clearing

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	1,160	Feet	\$12.50	\$14,500
Base Construction Cost				\$14,500
Mobilization (5%)				\$725
Subtotal 1				\$15,225
Contingency (25%)				\$3,806
Subtotal 2				\$19,031
Engineering design, surveys, land acquisition, utility locations, and permits (45%)			\$8,564	
Total				\$27,595
Estimated Project Cost				\$28,000

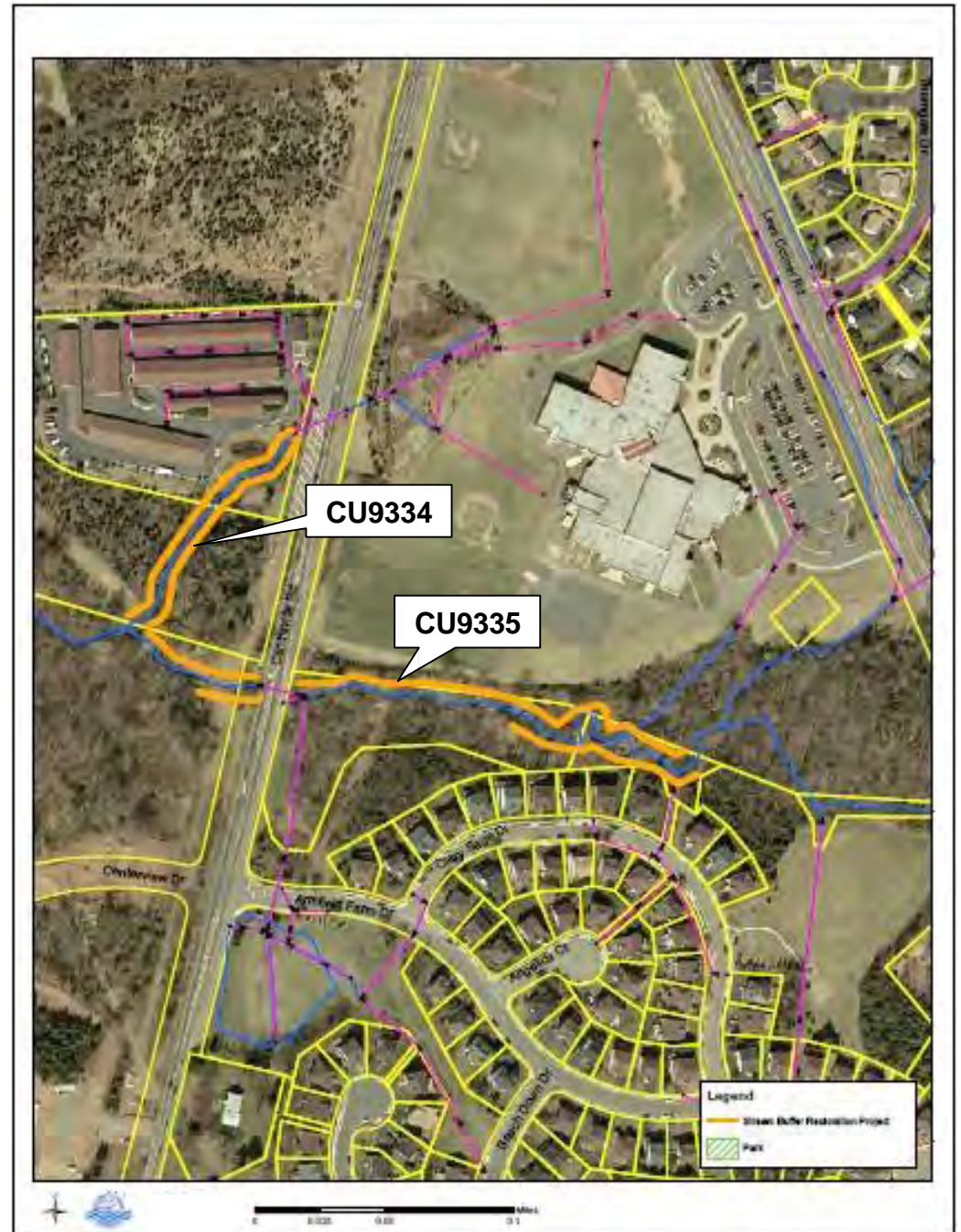
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9334
Project Type:	Buffer Restoration
Location:	Unnamed tributary to Cain Branch on private property downstream from Centreville Road near Franklin Middle School Tax Map 34-2
Description:	Impacted by fields and nearby development.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	1,060	Feet	\$12.50	\$13,250
Base Construction Cost				\$13,250
Mobilization (5%)				\$663
Subtotal 1				\$13,913
Contingency (25%)				\$3,478
Subtotal 2				\$17,391
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$7,826
Total				\$25,216
Estimated Project Cost				\$26,000

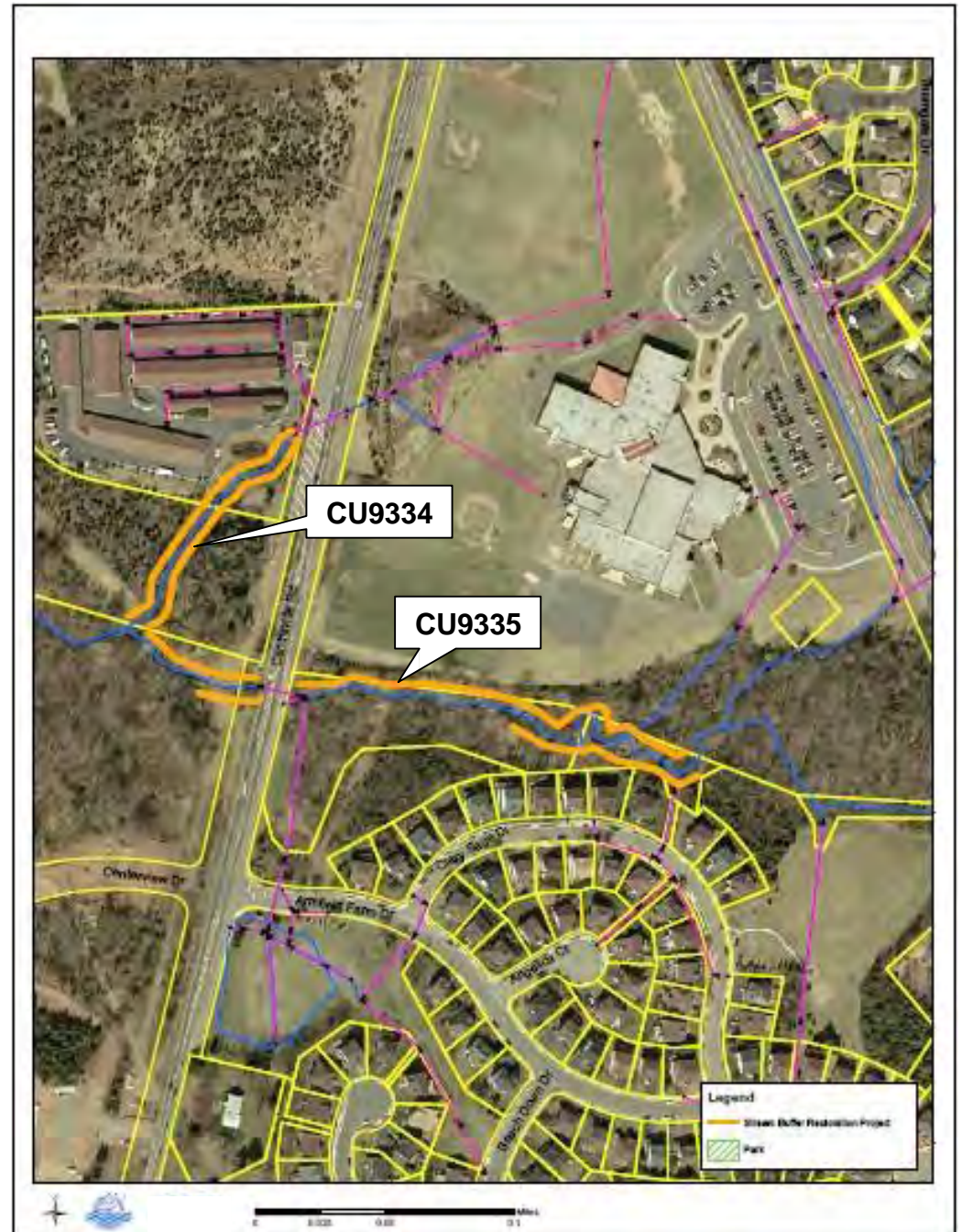
* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9335
Project Type:	Buffer Restoration
Location:	Cain Branch on private property upstream from Centreville Road and downstream from Lees Corner Road near Franklin Middle School. Tax Map - 34-2 Subdivision – Armfield Farms
Description:	Impacted by road construction and school development

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	1,680	Feet	\$12.50	\$21,000
Base Construction Cost				\$21,000
Mobilization (5%)				\$1,050
Subtotal 1				\$22,050
Contingency (25%)				\$5,513
Subtotal 2				\$27,563
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$12,403
Total				\$39,966
Estimated Project Cost				\$40,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9336
Project Type:	Buffer Restoration
Location:	Cain Branch in private property upstream from Lees Corner Road and regional pond C57. North of Indale Court and Briar Gate Court Tax Map – 35-1 Subdivision – 35-1
Description:	Impacted by nearby development and mowed areas.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	1,290	Feet	\$12.50	\$16,125
Base Construction Cost				\$16,125
Mobilization (5%)				\$806
Subtotal 1				\$16,931
Contingency (25%)				\$4,233
Subtotal 2				\$21,164
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$9,524
Total				\$30,688
Estimated Project Cost				\$31,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9337
Project Type:	Buffer Restoration
Location:	Cub Run Tributary near Pleasant Valley Neighborhood. Partially within FCPA Cub Run Stream Valley Park on unnamed tributary. Tax Map – 33-1, 33-2, 33-3, 33-4 Subdivision – Lafayette Business Center and Pleasant Valley
Description:	Impacted by mowed areas and fields.

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	6,160	Feet	\$12.50	\$77,000
Base Construction Cost				\$77,000
Mobilization (5%)				\$3,850
Subtotal 1				\$80,850
Contingency (25%)				\$20,213
Subtotal 2				\$101,063
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$45,478
Total				\$146,541
Estimated Project Cost				\$147,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9338
Project Type:	Buffer Restoration
Location:	Dead Run on private property downstream from Stonecroft Boulevard. Tax Map 33-2 and 34-1 Subdivision – Fairwood Estates
Description:	Impacted by nearby construction and other land uses and open fields

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	1,140	Feet	\$12.50	\$14,250
Base Construction Cost				\$14,250
Mobilization (5%)				\$713
Subtotal 1				\$14,963
Contingency (25%)				\$3,741
Subtotal 2				\$18,703
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$8,416
Total				\$27,120
Estimated Project Cost				\$28,000

* - Cumulative length of impacted stream buffer within project limits.



Project ID:	CU9339
Project Type:	Buffer Restoration
Location:	Dead Run on private property upstream from Stonecroft Boulevard Tax Map – 24-3
Description:	Impacted by new construction

Project Cost Estimate				
Item	Qty *	Units	Unit Cost	Total Cost
Stream Restoration	1,240	Feet	\$12.50	\$15,500
Base Construction Cost				\$15,500
Mobilization (5%)				\$775
Subtotal 1				\$16,275
Contingency (25%)				\$4,069
Subtotal 2				\$20,344
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$9,155
Total				\$29,498
Estimated Project Cost				\$30,000

* - Cumulative length of impacted stream buffer within project limits.



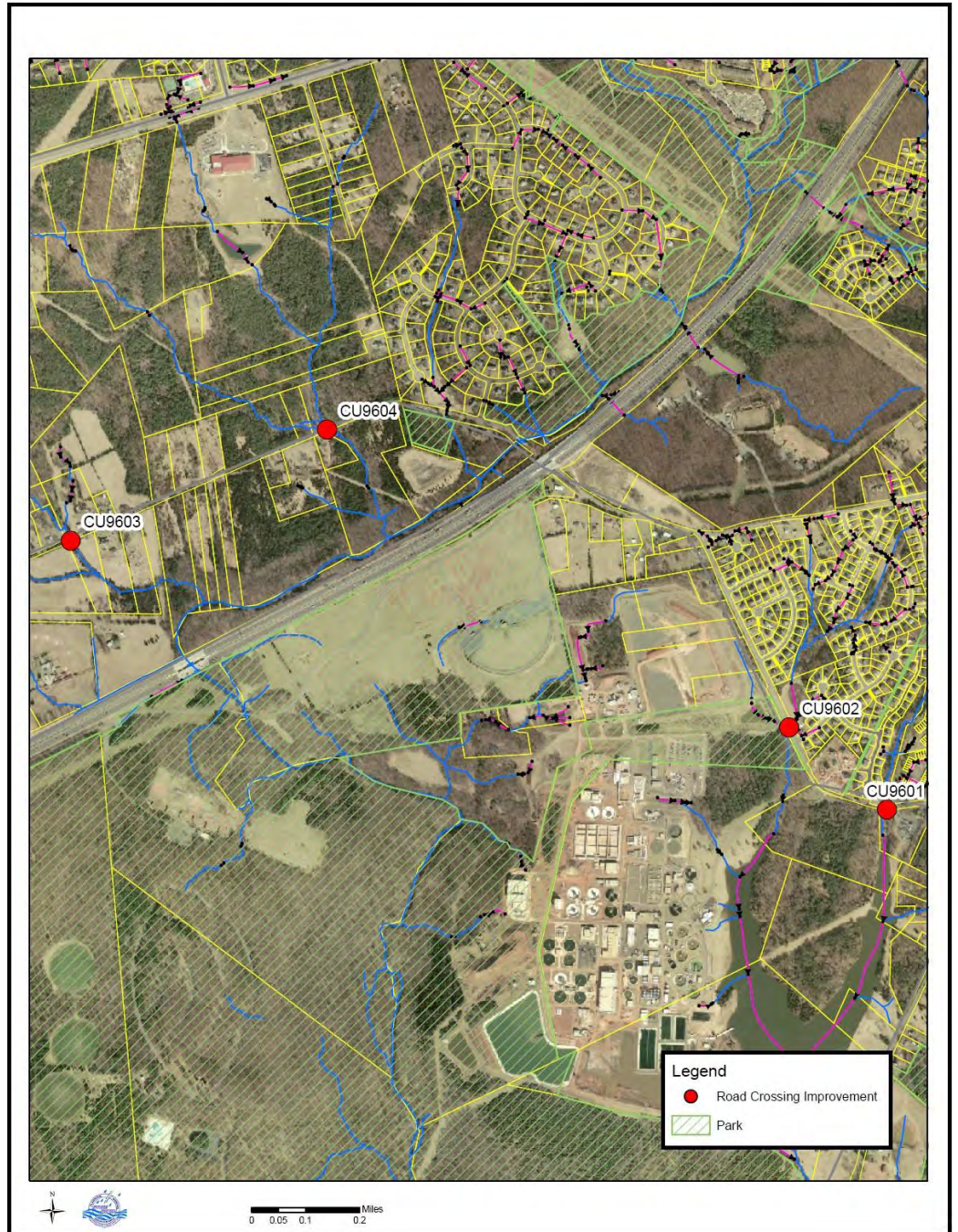
Fact Sheets

Projects CU9601 through CU9613

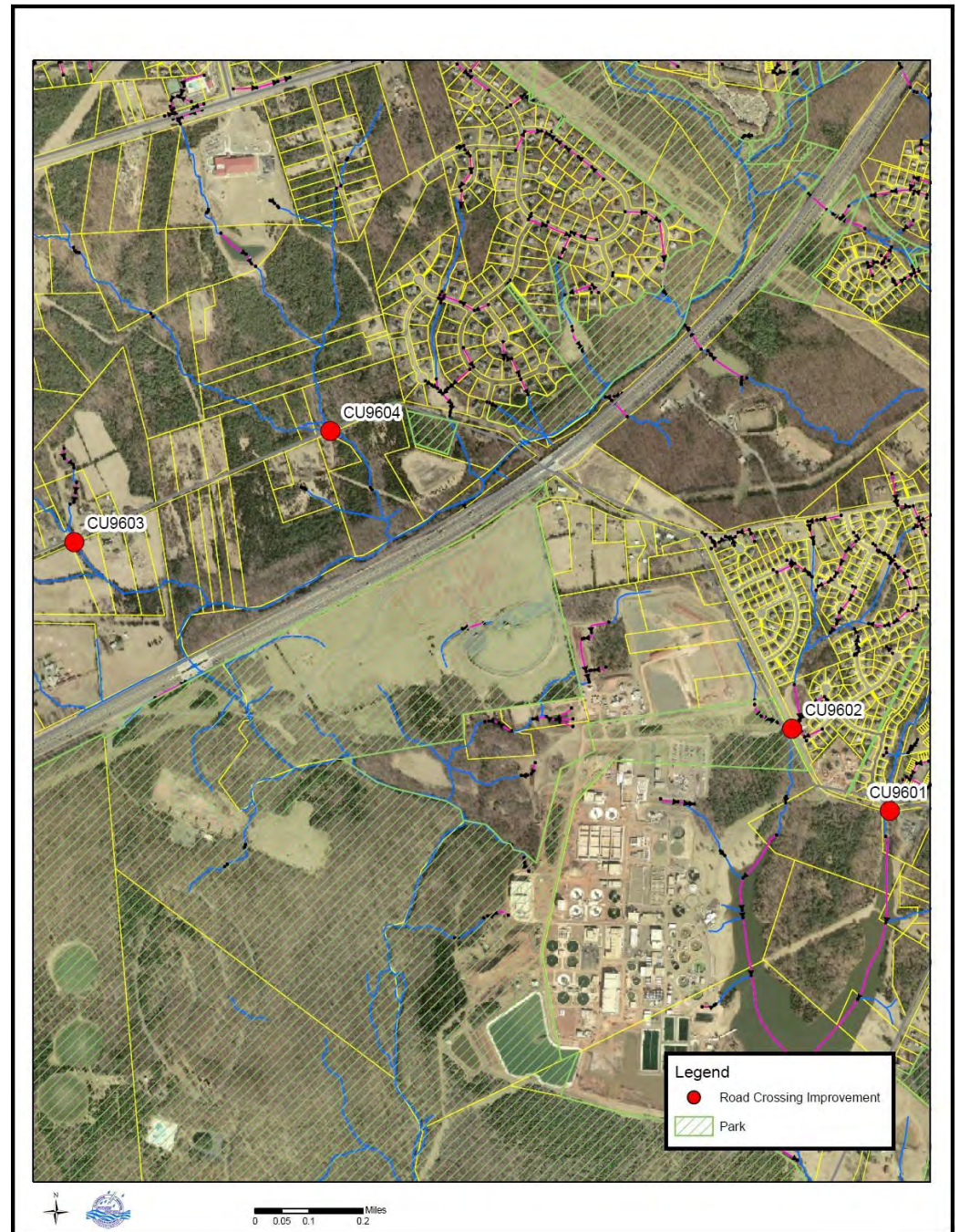
Cub Run Watershed Road Crossing Improvement Projects

Projects CU9601 through CU9613

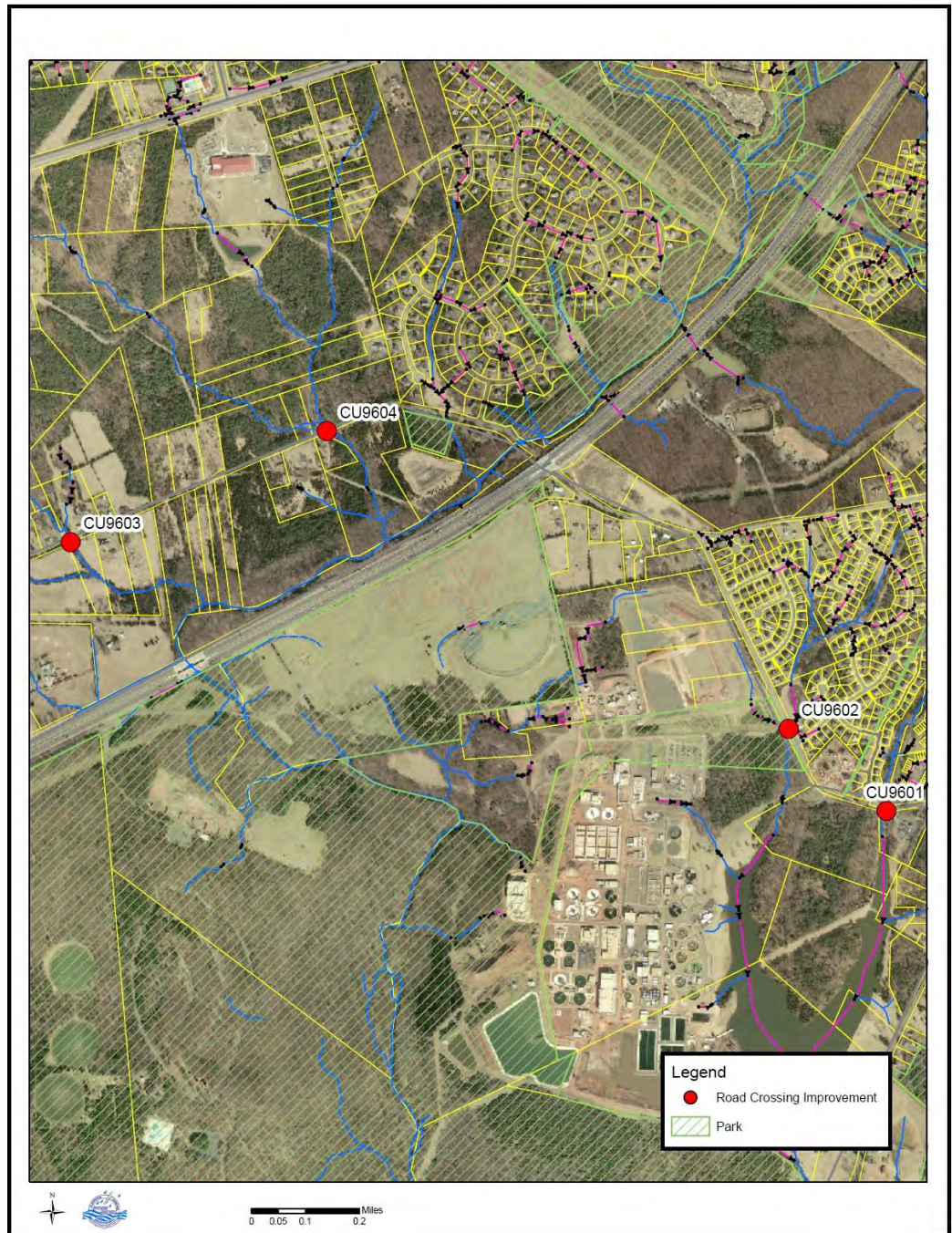
Project ID:	CU9601
Project Type:	Road Crossing Improvement
Location:	Compton Road at unnamed tributary near UOSA advanced wastewater treatment plant Bull Run East subwatershed
Description:	Raise road and replace existing culvert with a larger culvert to address roadway flooding and impact of road on the stream. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



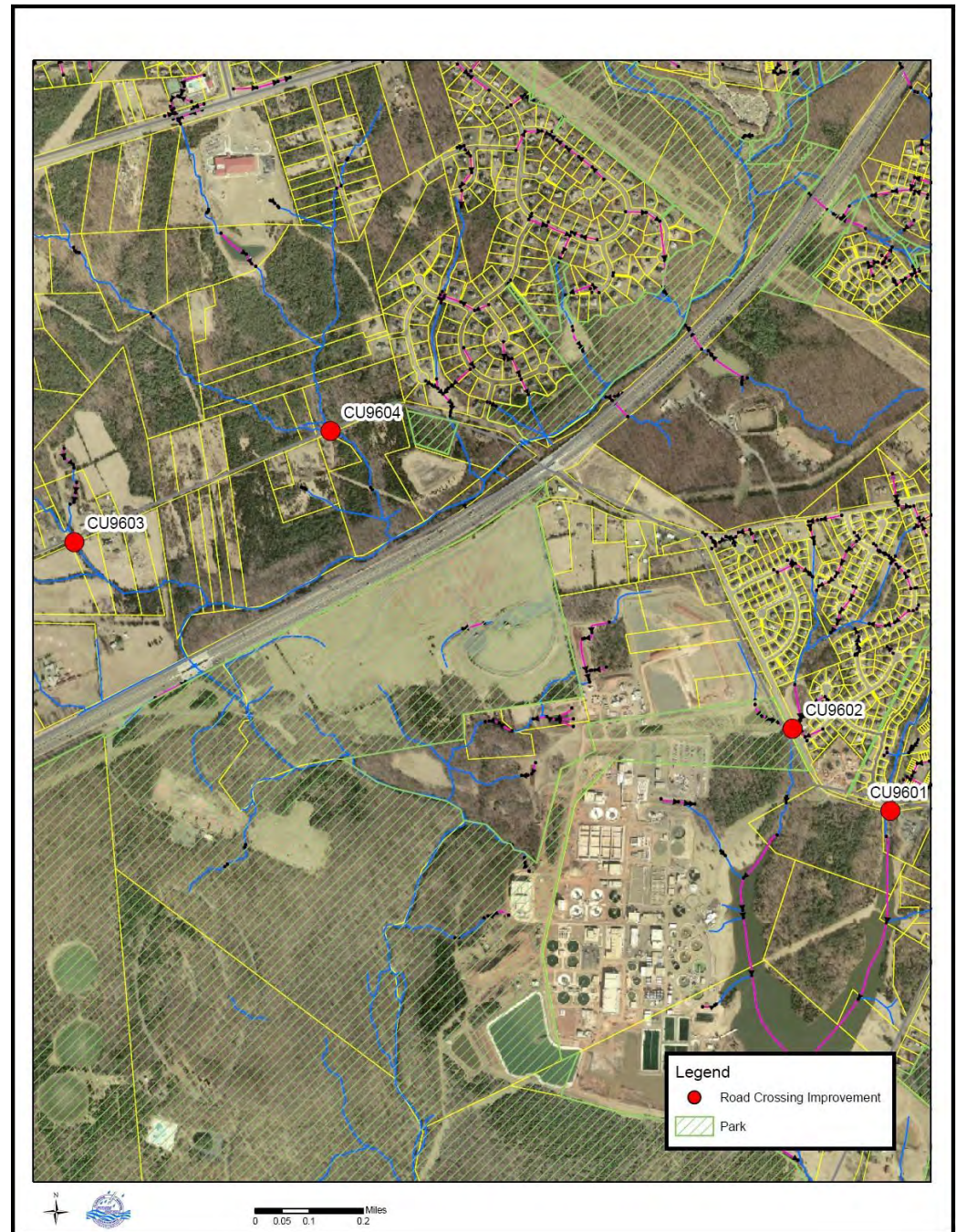
Project ID:	CU9602
Project Type:	Road Crossing Improvement
Location:	Compton Road at unnamed tributary near Confederate Ridge Lane within Bull Run East subwatershed
Description:	Raise road and replace existing culvert with a larger culvert to address roadway flooding and impact of road on the stream. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



Project ID:	CU9603
Project Type:	Road Crossing Improvement
Location:	Compton Road at unnamed tributary west of Bull Run Post Office Road within Lower Cub Run subwatershed
Description:	Raise road and replace existing culvert with a larger culvert to address roadway flooding and impact of road on the stream. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



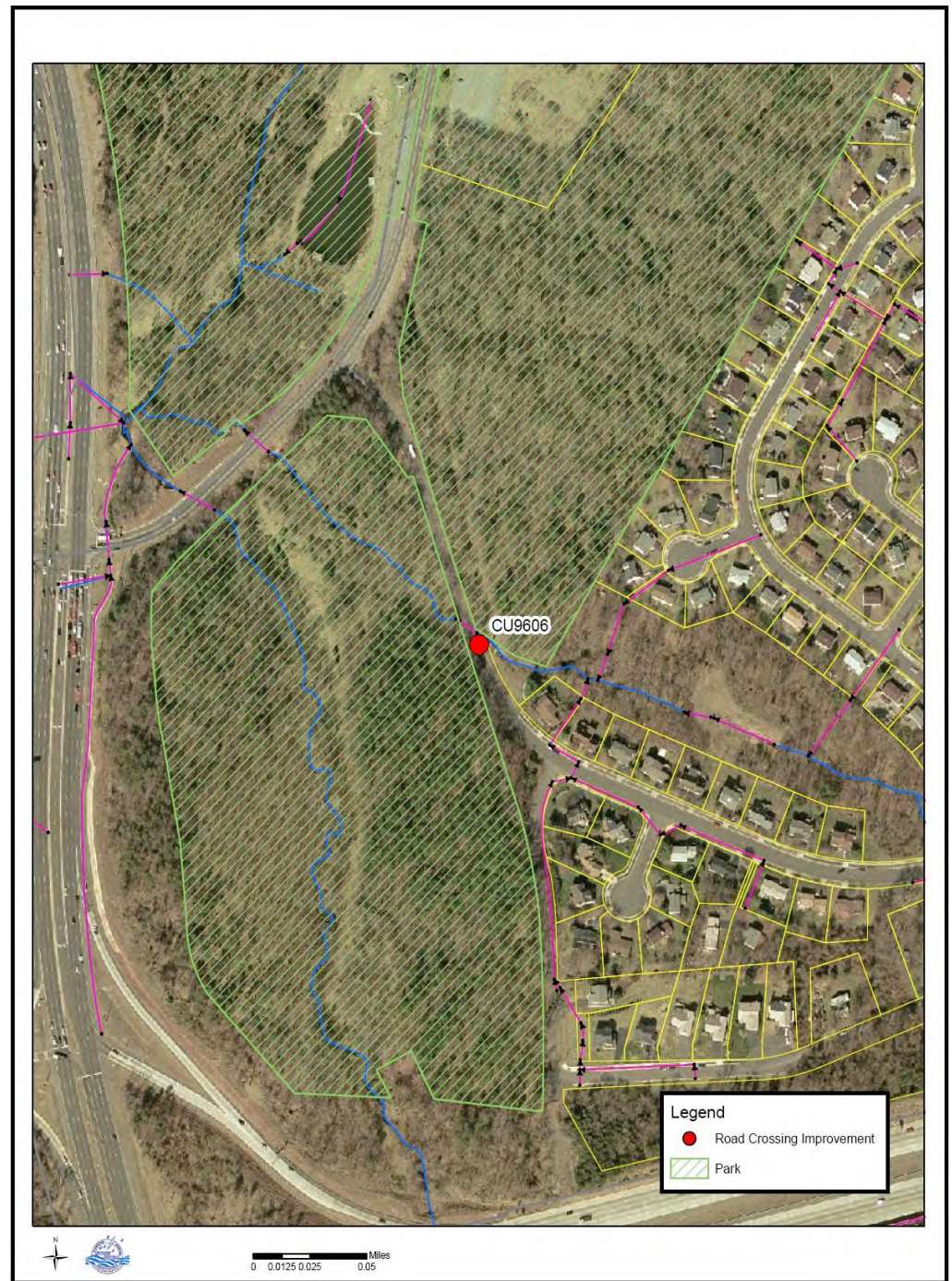
Project ID:	CU9604
Project Type:	Road Crossing Improvement
Location:	Compton Road at unnamed tributary west of Route 66 within Lower Cub Run subwatershed
Description:	Raise road and replace existing culvert with a larger culvert to address roadway flooding and impact of road on the stream. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



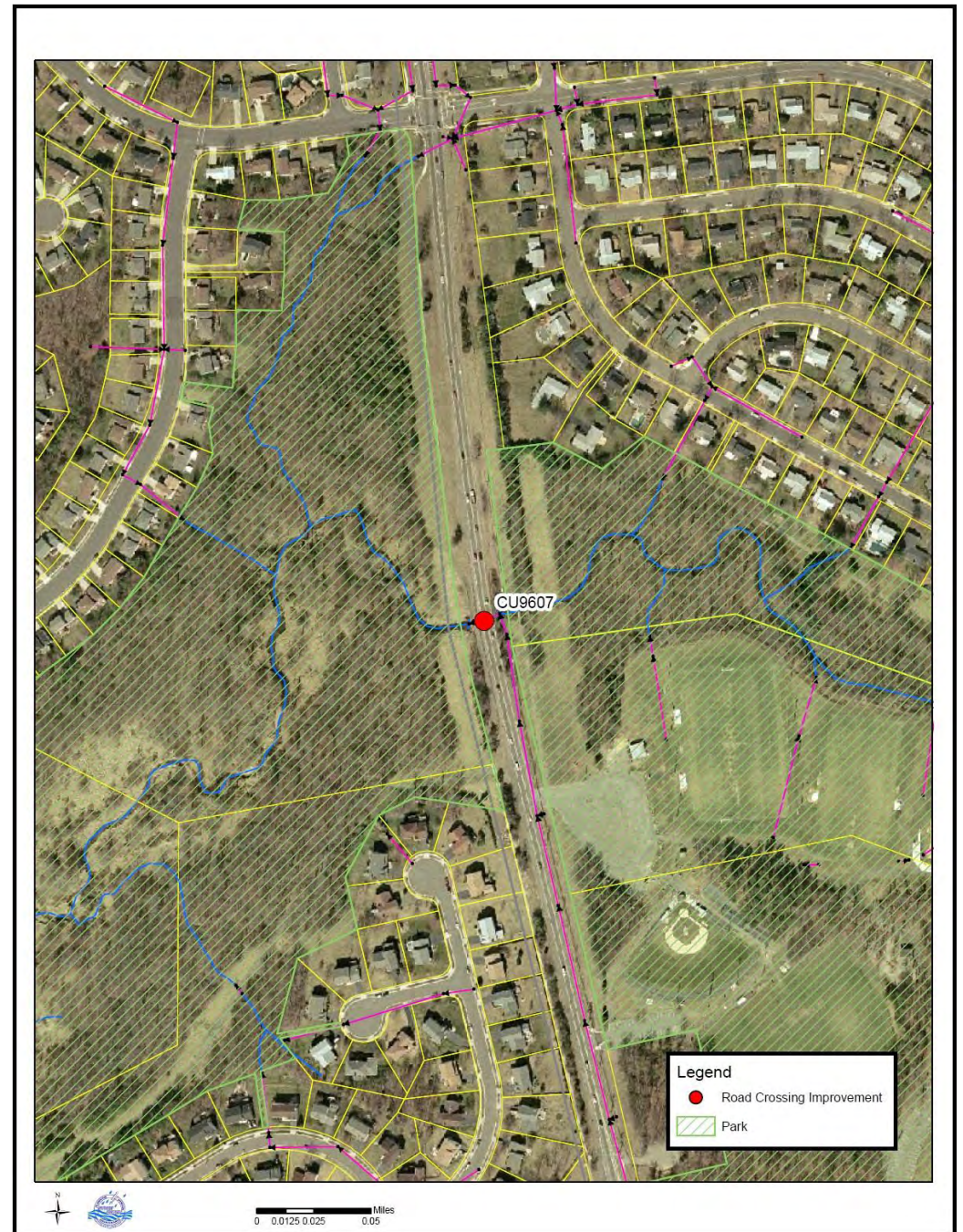
Project ID:	CU9605
Project Type:	Road Crossing Improvement
Location:	Awbrey Patent Drive at Big Rocky Run within Big Rocky Run subwatershed
Description:	Raise roadway elevation and add additional culvert(s) to address roadway flooding. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



Project ID:	CU9606
Project Type:	Road Crossing Improvement
Location:	Heron Drive at unnamed tributary between Cabells Mill Drive and Walney Road within Big Rocky Run subwatershed
Description:	Replace existing culvert with a larger culvert or multiple culverts to address roadway flooding and impact of road on the stream. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



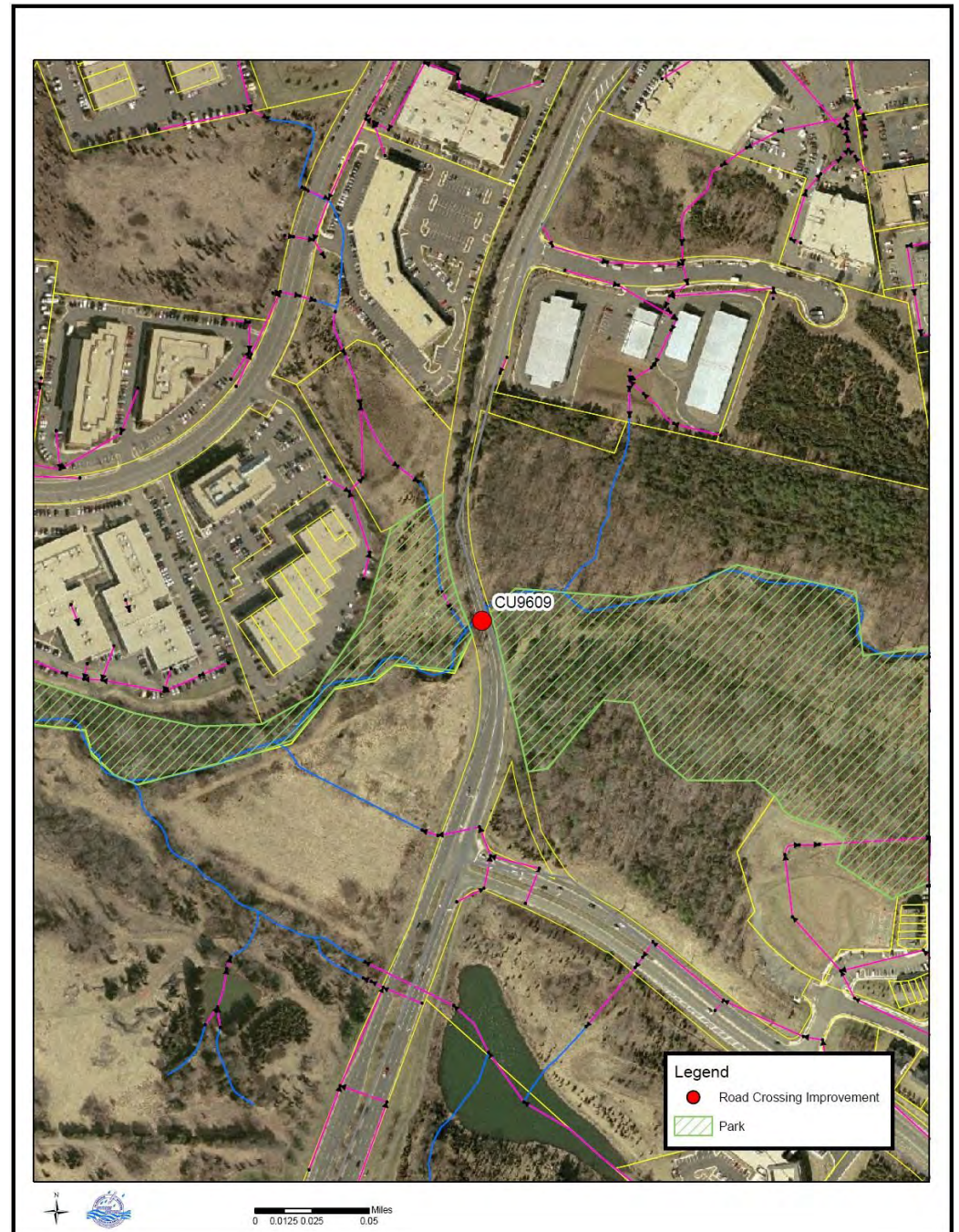
Project ID:	CU9607
Project Type:	Road Crossing Improvement
Location:	Big Rocky Run at Stringfellow Road within Big Rocky Run subwatershed
Description:	Replace existing culvert with larger culvert, multiple culverts or bridge to address flooding. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



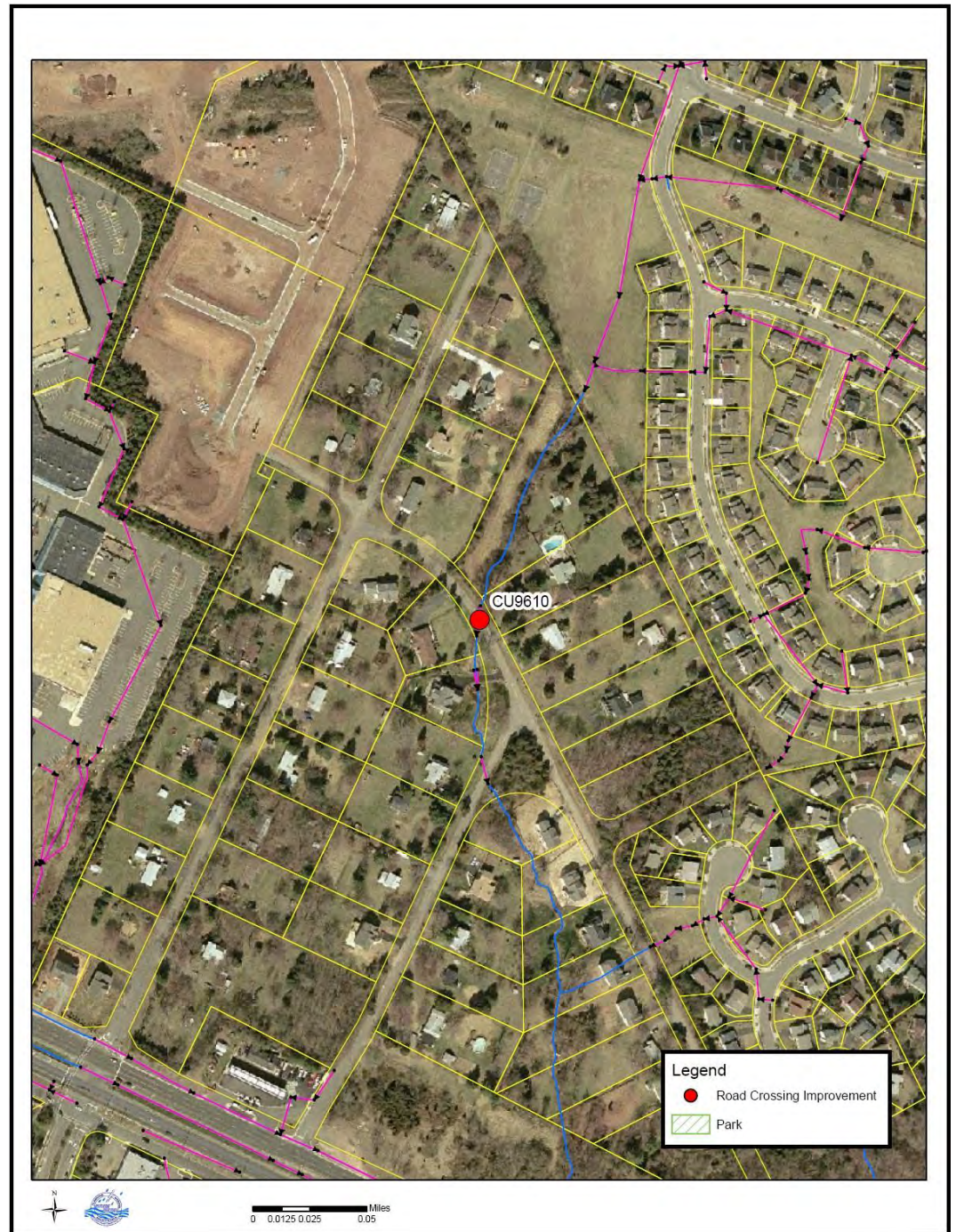
Project ID:	CU9608
Project Type:	Road Crossing Improvement
Location:	Dorforth Drive at unnamed tributary within Big Rocky Run subwatershed
Description:	This crossing is no longer an active right of way. The culvert and berm will be removed to eliminate impacts on the stream and restore natural flood plain.



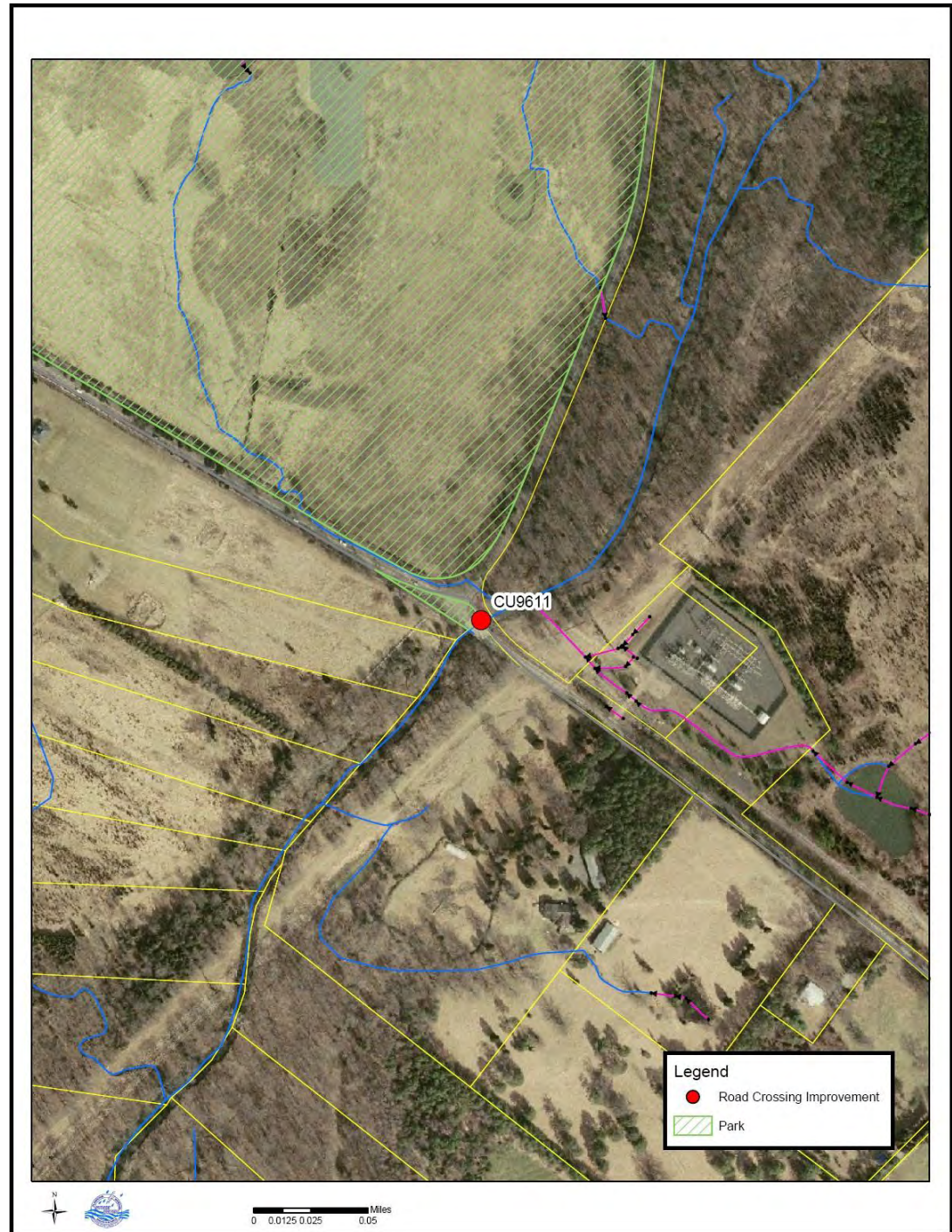
Project ID:	CU9609
Project Type:	Road Crossing Improvement
Location:	Flatlick Branch at Walney Road
Description:	Raise road and replace existing culvert with larger culvert, multiple culverts or a bridge to address roadway flooding and impacts of crossing on the stream. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



Project ID:	CU9610
Project Type:	Road Crossing Improvement
Location:	Birch Drive at unnamed tributary to Flatlick Branch
Description:	Replace existing culvert with larger culvert or multiple culverts to address roadway flooding. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



Project ID:	CU9611
Project Type:	Road Crossing Improvement
Location:	Cub Rub at Braddock Road and Old Lee Road within Upper Cub Run subwatershed.
Description:	Raise roadway elevation and replace existing bridge with larger bridge or multiple box culverts to address roadway flooding. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



Project ID:	CU9612
Project Type:	Road Crossing Improvement
Location:	Pleasant Valley Road at unnamed tributary near Blue Spring Drive within the Upper Cub Run subwatershed
Description:	Raise roadway elevation and replace existing culvert with larger culvert or multiple culverts to address roadway flooding. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



Project ID:	CU9613
Project Type:	Road Crossing Improvement
Location:	Cain Branch at Lees Corner Road within Cain Branch subwatershed
Description:	Raise roadway elevation and replace existing culvert/bridge with larger culvert or bridge or multiple culverts. Project will not be implemented using Fairfax County stormwater funds. The roads are maintained by the Virginia Department of Transportation and these improvements will be implemented during roadway improvement projects.



Fact Sheets

Projects CU9701 through CU9722

Cub Run Watershed Dry Pond Retrofit Projects (Part 2)

Projects CU9701 through CU9722. The remaining dry pond retrofit projects are included as projects CU9101 through CU9199. This includes all dry pond retrofit projects including those with a low priority.

Project ID:	CU9701
Project Type:	Dry Pond Retrofit
Location:	Rose Grove Drive (New Pond) PIN - 0354 01 0001 Oak Hill Reserve Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Evaluate and implement options to provide enhanced peak flow control. Public/Private maintenance Unknown

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$103,524
Base Construction Cost				\$103,524
Mobilization (5%)				\$5,176
Subtotal 1				\$108,700
Contingency (25%)				\$27,175
Subtotal 2				\$135,875
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$61,144
Total				\$197,019
Estimated Project Cost				\$198,000



Project ID:	CU9702
Project Type:	Dry Pond Retrofit
Location:	Autumn Crest Drive and Pond Mist Way PIN - 0354 21 F Oakton Ridge Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Evaluate and implement options to provide enhanced peak flow control. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$43,629
Base Construction Cost				\$43,629
Mobilization (5%)				\$2,181
Subtotal 1				\$45,810
Contingency (25%)				\$11,453
Subtotal 2				\$57,263
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$25,768
Total				\$83,031
Estimated Project Cost				\$84,000



Project ID:	CU9703
Project Type:	Dry Pond Retrofit
Location:	Oxon Road & Oakton Chase Way PIN - 0354 18 A Oakton Chase Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Evaluate and implement options to provide enhanced peak flow control. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$82,446
Base Construction Cost				\$82,446
Mobilization (5%)				\$4,122
Subtotal 1				\$86,568
Contingency (25%)				\$21,642
Subtotal 2				\$108,210
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$48,695
Total				\$156,905
Estimated Project Cost				\$157,000



Project ID:	CU9704
Project Type:	Dry Pond Retrofit
Location:	Camberley Forest Drive & Wilbury Road PIN - 0354 14 Y Camberley West Flatlick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Evaluate and implement options to provide enhanced peak flow control. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$63,528
Base Construction Cost				\$63,528
Mobilization (5%)				\$2,140
Subtotal 1				\$44,932
Contingency (25%)				\$11,233
Subtotal 2				\$56,165
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$25,274
Total				\$81,439
Estimated Project Cost				\$82,000



Project ID:	CU9705
Project Type:	Dry Pond Retrofit
Location:	Kentwell Circle PIN - 0531 04 0003 Virginia Run The Estates Elklick Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$63,528
Base Construction Cost				\$63,528
Mobilization (5%)				\$3,176
Subtotal 1				\$66,704
Contingency (25%)				\$16,676
Subtotal 2				\$83,381
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$37,521
Total				\$120,902
Estimated Project Cost				\$121,000



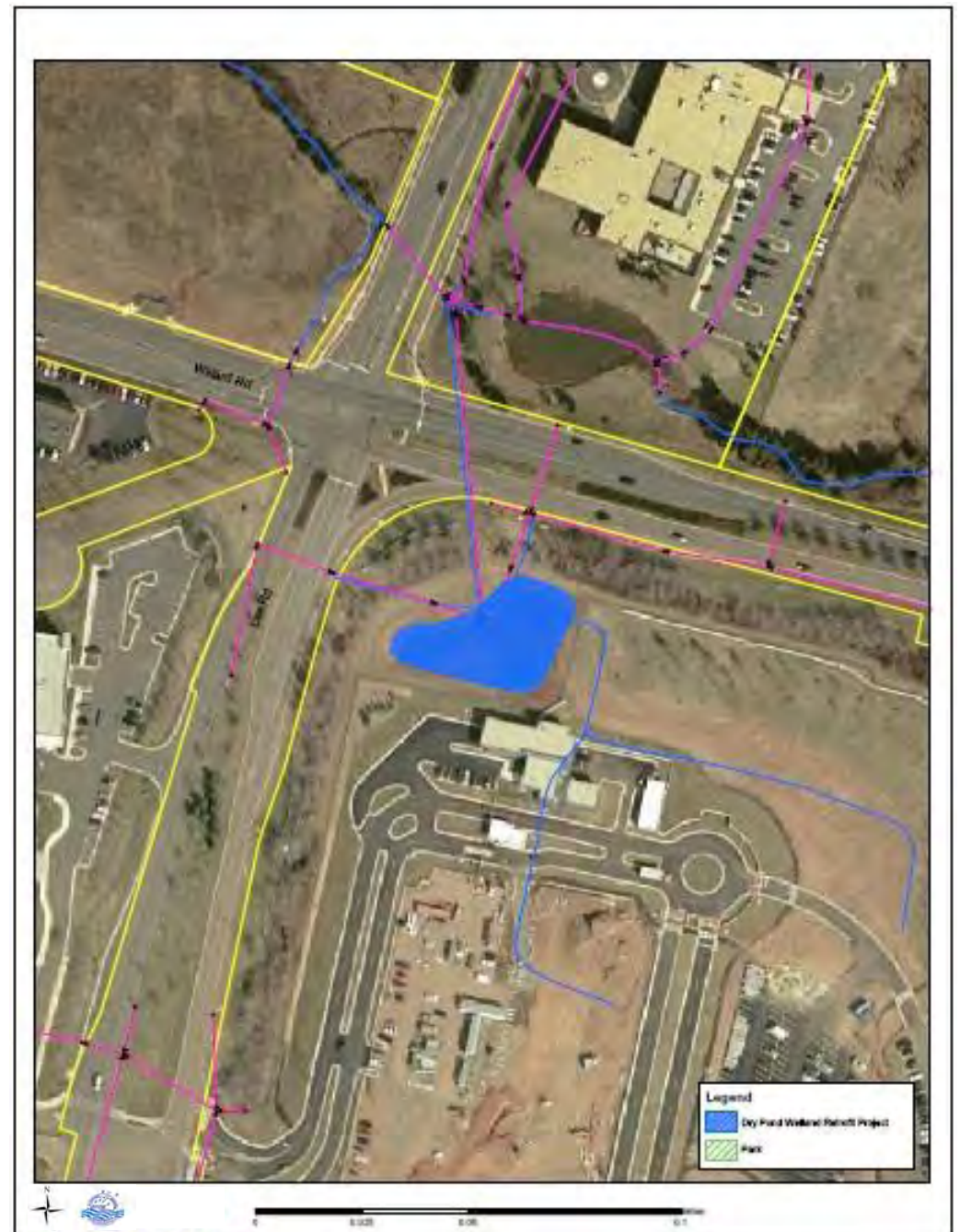
Project ID:	CU9706
Project Type:	Dry Pond Retrofit
Location:	Flint Lee Business Center, Stonecroft Road PIN - 0334 01 0011B Schneider Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$41,586
Base Construction Cost				\$41,586
Mobilization (5%)				\$2,079
Subtotal 1				\$43,665
Contingency (25%)				\$10,916
Subtotal 2				\$54,582
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$24,562
Total				\$79,143
Estimated Project Cost				\$80,000



Project ID:	CU9707
Project Type:	Dry Pond Retrofit
Location:	Lee Road and Willard Road PIN - 0441 04 0041 Westfields International Center at Dulles Schneider Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$40,119
Base Construction Cost				\$40,119
Mobilization (5%)				\$2,006
Subtotal 1				\$42,125
Contingency (25%)				\$10,531
Subtotal 2				\$52,656
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$23,695
Total				\$76,351
Estimated Project Cost				\$77,000



Project ID:	CU9708
Project Type:	Dry Pond Retrofit – Low Priority
Location:	Walney Road & Vernon Street P0344 06 0061 Rockland Village Schneider Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$31,812
Base Construction Cost				\$31,812
Mobilization (5%)				\$1,591
Subtotal 1				\$33,403
Contingency (25%)				\$8,351
Subtotal 2				\$41,753
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$18,789
Total				\$60,542
Estimated Project Cost				\$61,000



Project ID:	CU9709
Project Type:	Dry Pond Retrofit
Location:	Sully Plaza, Route 50 and Centreville Road PIN - 0344 01 0016C Schneider Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$33,207
Base Construction Cost				\$33,207
Mobilization (5%)				\$1,660
Subtotal 1				\$34,867
Contingency (25%)				\$8,717
Subtotal 2				\$43,584
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,613
Total				\$63,197
Estimated Project Cost				\$64,000



Project ID:	CU9710
Project Type:	Dry Pond Retrofit
Location:	Westfax Industrial Park, Route 50 and Westfax Drive PIN - 0343 01 0002A Cain Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$36,276
Base Construction Cost				\$36,276
Mobilization (5%)				\$1,814
Subtotal 1				\$38,090
Contingency (25%)				\$9,522
Subtotal 2				\$47,612
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$21,426
Total				\$69,038
Estimated Project Cost				\$70,000



Project ID:	CU9711
Project Type:	Dry Pond Retrofit
Location:	Franklin Middle School, Centreville Road PIN - 0342 01 0029 Cain Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$72,996
Base Construction Cost				\$72,996
Mobilization (5%)				\$3,650
Subtotal 1				\$76,646
Contingency (25%)				\$19,161
Subtotal 2				\$95,807
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$43,113
Total				\$138,921
Estimated Project Cost				\$139,000



Project ID:	CU9712
Project Type:	Dry Pond Retrofit
Location:	Centreville Road & Armfield Farm Drive PIN - 0342 01 0029 Armfield Farms Cain Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$51,117
Base Construction Cost				\$51,117
Mobilization (5%)				\$2,556
Subtotal 1				\$53,673
Contingency (25%)				\$13,418
Subtotal 2				\$67,091
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$30,191
Total				\$97,282
Estimated Project Cost				\$98,000



Project ID:	CU9713
Project Type:	Dry Pond Retrofit
Location:	Lees Corner Road & Old Dairy Road PIN - 0343 01 0002A Franklin Farm Cain Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$104,217
Base Construction Cost				\$104,217
Mobilization (5%)				\$5,211
Subtotal 1				\$109,428
Contingency (25%)				\$27,357
Subtotal 2				\$136,785
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$61,553
Total				\$198,338
Estimated Project Cost				\$199,000



Project ID:	CU9714
Project Type:	Dry Pond Retrofit
Location:	Franklin Farm Road and Hidden Meadow Drive PIN - 0351 04200001 Franklin Farm Cain Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$30,507
Base Construction Cost				\$30,507
Mobilization (5%)				\$1,525
Subtotal 1				\$32,032
Contingency (25%)				\$8,008
Subtotal 2				\$40,040
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$18,018
Total				\$58,059
Estimated Project Cost				\$59,000



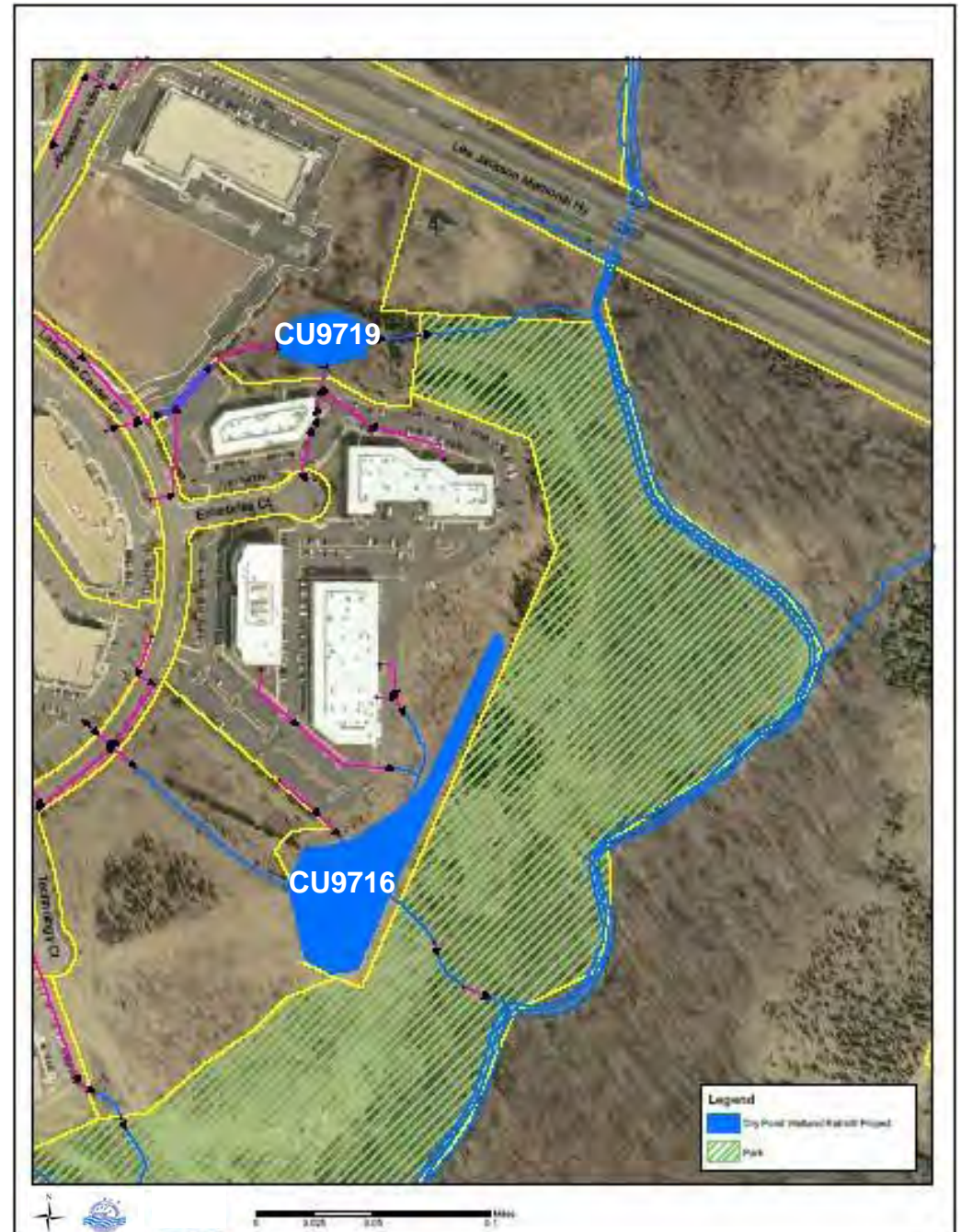
Project ID:	CU9715
Project Type:	Dry Pond Retrofit
Location:	Between Pleasant Valley Road and Silas Hutchinson Drive PIN - 0334 02 A1 Pleasant Valley Upper Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$32,883
Base Construction Cost				\$32,883
Mobilization (5%)				\$1,644
Subtotal 1				\$34,527
Contingency (25%)				\$8,632
Subtotal 2				\$43,159
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,422
Total				\$62,580
Estimated Project Cost				\$63,000



Project ID:	CU9716
Project Type:	Dry Pond Retrofit
Location:	Technology Court & Lafayette Center PIN - 0332 04 0002 Lafayette Business Center Upper Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$44,664
Base Construction Cost				\$44,664
Mobilization (5%)				\$2,233
Subtotal 1				\$46,897
Contingency (25%)				\$11,724
Subtotal 2				\$58,622
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$26,380
Total				\$85,001
Estimated Project Cost				\$86,000



Project ID:	CU9717
Project Type:	Dry Pond Retrofit
Location:	Driving Training Center, Stonecroft Boulevard PIN - 0341 01 0005 Cain Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$39,570
Base Construction Cost				\$39,570
Mobilization (5%)				\$1,979
Subtotal 1				\$41,549
Contingency (25%)				\$10,387
Subtotal 2				\$51,936
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$23,371
Total				\$75,307
Estimated Project Cost				\$76,000



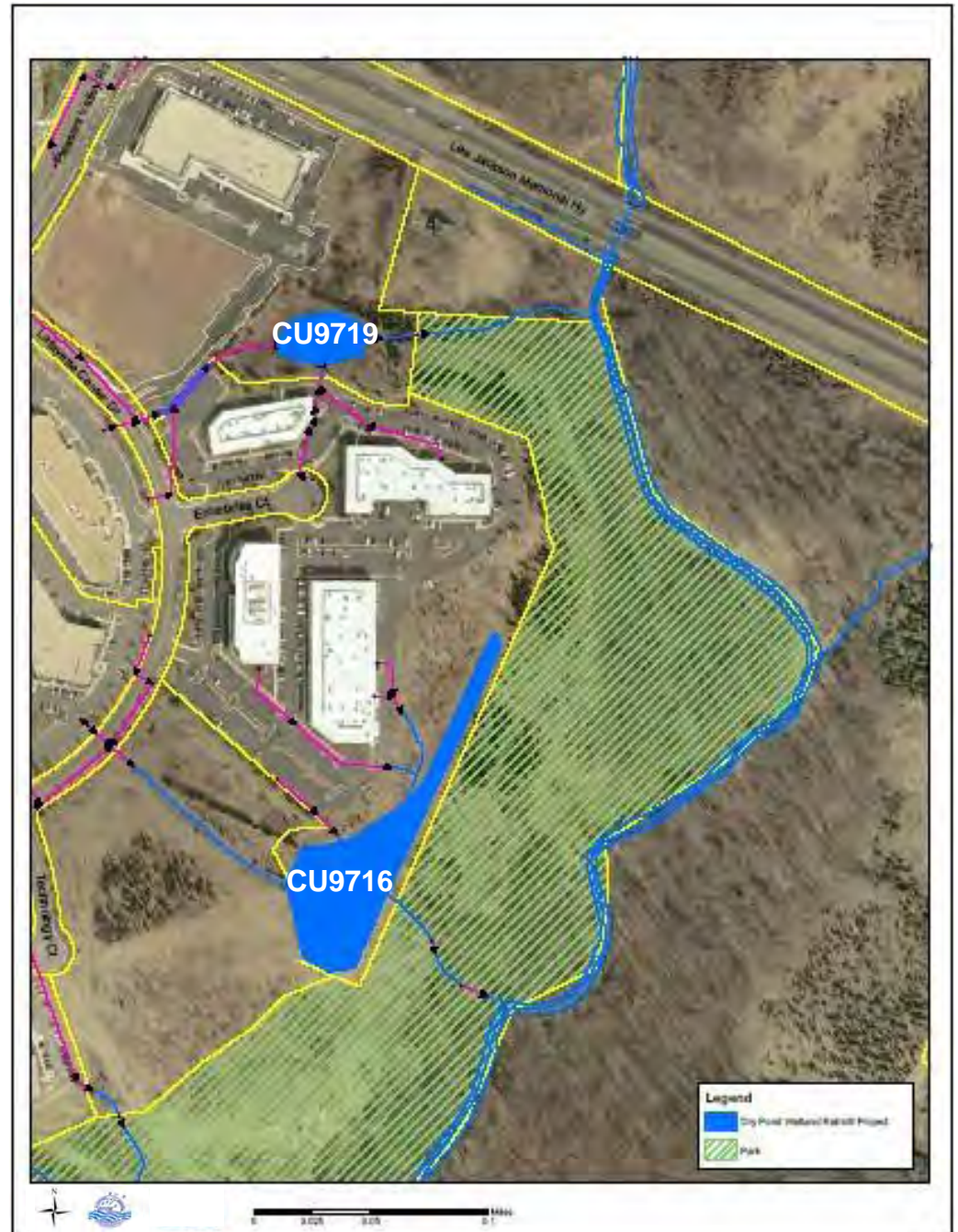
Project ID:	CU9718
Project Type:	Dry Pond Retrofit
Location:	Avion Parkway & Virginia Mallory Drive PIN - 0341 03 D2 Avion Cain Branch
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$35,025
Base Construction Cost				\$35,025
Mobilization (5%)				\$1,751
Subtotal 1				\$36,776
Contingency (25%)				\$9,194
Subtotal 2				\$45,970
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$20,687
Total				\$66,657
Estimated Project Cost				\$67,000



Project ID:	CU9719
Project Type:	Dry Pond Retrofit
Location:	Lafayette Business Center, Lafayette Center Drive PIN - 0332 04 0001 Lafayette Business Center Upper Cub Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$46,842
Base Construction Cost				\$46,842
Mobilization (5%)				\$2,342
Subtotal 1				\$49,184
Contingency (25%)				\$12,296
Subtotal 2				\$61,480
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$27,666
Total				\$89,146
Estimated Project Cost				\$90,000



Project ID:	CU9720
Project Type:	Dry Pond Retrofit
Location:	Stonecroft Boulevard. & Thompson Road PIN - 0341 01 0005 Near Driving Training Center Dead Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Public maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$37,293
Base Construction Cost				\$37,293
Mobilization (5%)				\$1,865
Subtotal 1				\$39,158
Contingency (25%)				\$9,789
Subtotal 2				\$48,947
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$22,026
Total				\$70,973
Estimated Project Cost				\$71,000



Project ID:	CU9721
Project Type:	Dry Pond Retrofit
Location:	Dulles International Centre, Eds Drive PIN - 0244 03 B Dulles International Centre Dead Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$75,345
Base Construction Cost				\$75,345
Mobilization (5%)				\$3,767
Subtotal 1				\$79,112
Contingency (25%)				\$19,778
Subtotal 2				\$98,890
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$44,501
Total				\$143,391
Estimated Project Cost				\$144,000



Project ID:	CU9722
Project Type:	Dry Pond Retrofit
Location:	Dulles Gateway Center Renaissance Park, Park Center Road PIN - 0242 01 0022E Dead Run
Description:	Modify existing dry pond to improve nutrient removal by adding wetland features. Evaluate and modify outlet structure if appropriate. Private maintenance

Project Cost Estimate				
Item	Qty	Units	Unit Cost	Total Cost
Dry Pond Retrofit	1	Pond		\$33,045
Base Construction Cost				\$33,045
Mobilization (5%)				\$1,652
Subtotal 1				\$34,697
Contingency (25%)				\$8,674
Subtotal 2				\$43,372
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,517
Total				\$62,889
Estimated Project Cost				\$63,000



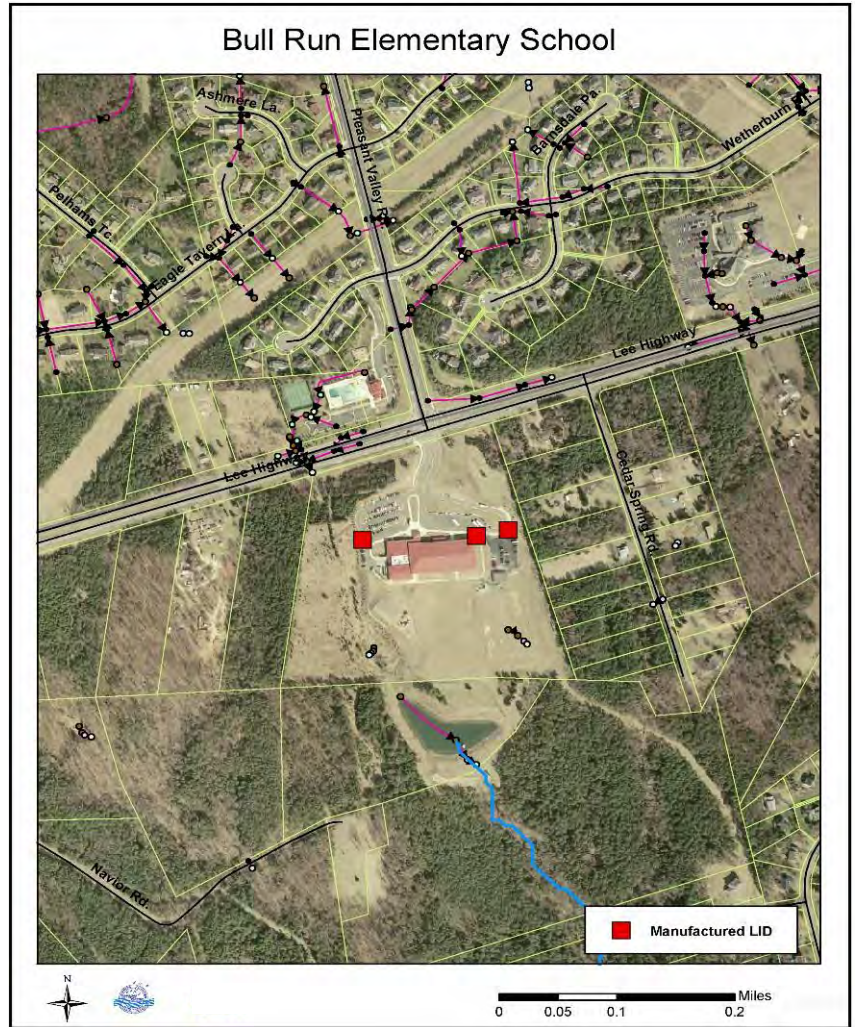
Fact Sheets

Projects CU9801 through CU9825

Cub Run Watershed LID Retrofit Projects at Public Facilities

Projects CU9801 through CU9825

Project ID:	CU9801
Project Type:	LID Projects at Public Facility
Location:	Bull Run Elementary School. Route 29 and Pleasant Valley Road. Middle Cub Run Watershed.
Description:	Implement LID project at Bull Run Elementary School. Conceptual plan consists of three manufactured bioretention units at three locations. Area served = 1.4 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	3			\$63,450
Base Construction Cost				\$63,450
Mobilization (5%)				\$3,173
Subtotal 1				\$66,623
Contingency (25%)				\$16,656
Subtotal 2				\$83,279
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$37,476
Total				\$120,755
Estimated Project Cost				\$121,000

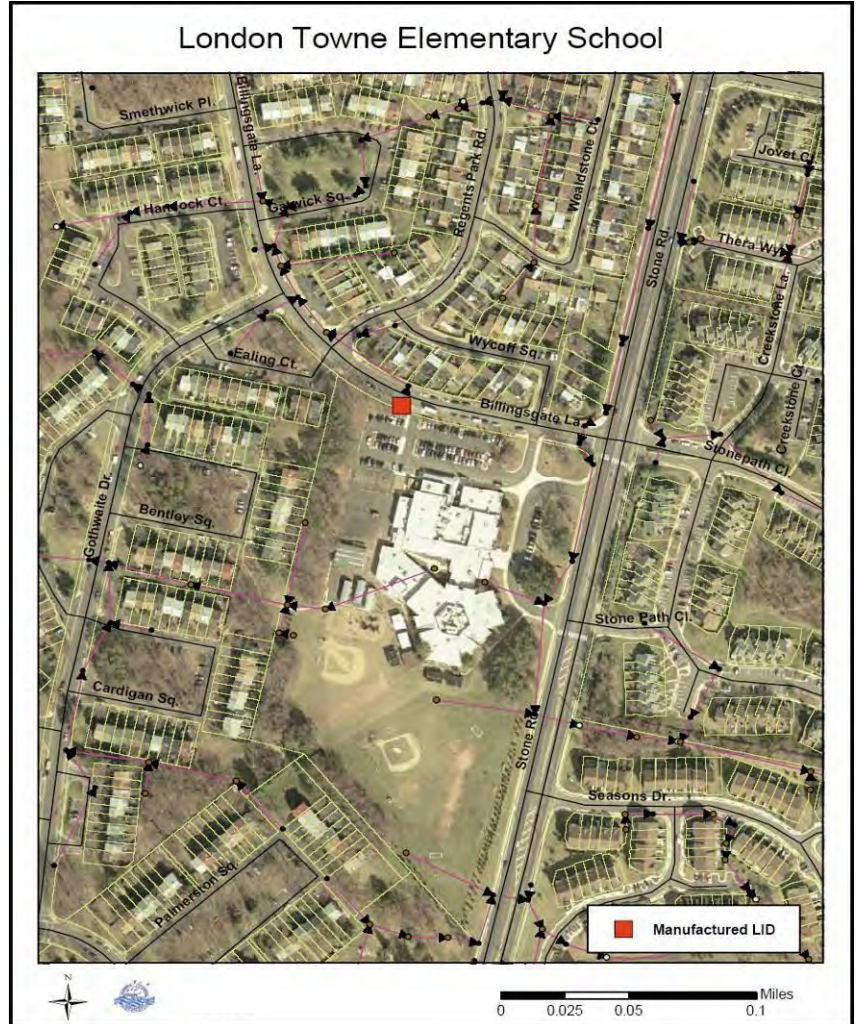
Project ID:	CU9802
Project Type:	LID Projects at Public Facility
Location:	Centre Ridge Elementary School. New Braddock Road and Store House Drive. Lower Cub Run Watershed.
Description:	Implement LID project at Centre Ridge Elementary School. Conceptual plan consists of four manufactured bioretention units at two locations. Area served = 1.4 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	4			\$68,400
Base Construction Cost				\$68,400
Mobilization (5%)				\$3,420
Subtotal 1				\$71,820
Contingency (25%)				\$17,955
Subtotal 2				\$89,775
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$40,399
Total				\$130,174
Estimated Project Cost				\$131,000

Project ID:	CU9803
Project Type:	LID Projects at Public Facility
Location:	London Towne Elementary School. Stone Road and Billingsgate Lane. Middle Cub Run Watershed.
Description:	Implement LID project at London Towne Elementary School. Conceptual plan consists of two manufactured bioretention units at one location. Area served = 0.7 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	2			\$34,200
Base Construction Cost				\$34,200
Mobilization (5%)				\$1,710
Subtotal 1				\$35,910
Contingency (25%)				\$8,978
Subtotal 2				\$44,888
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$20,200
Total				\$65,088
Estimated Project Cost				\$66,000

Project ID:	CU9804
Project Type:	LID Projects at Public Facility
Location:	Centreville Library. Machen Road and Saint Germain Drive. Big Rocky Run watershed.
Description:	Implement LID project at Centreville Library. Conceptual plan consists of four manufactured bioretention units at two locations. Area served = 1.6 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	4			\$76,200
Base Construction Cost				\$76,200
Mobilization (5%)				\$3,810
Subtotal 1				\$80,010
Contingency (25%)				\$20,003
Subtotal 2				\$100,013
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$45,006
Total				\$145,019
Estimated Project Cost				\$146,000

Project ID:	CU9805
Project Type:	LID Projects at Public Facility
Location:	Ellanor C Lawrence Park playing fields parking lot Route 28. Big Rocky Run watershed.
Description:	Implement LID project at Ellanor C. Lawrence Park playing fields parking lot. Conceptual plan consists of 6 manufactured bioretention units at two locations. Area served = 2.7 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	6			\$122,550
Base Construction Cost				\$122,550
Mobilization (5%)				\$6,128
Subtotal 1				\$128,678
Contingency (25%)				\$32,170
Subtotal 2				\$160,848
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$72,382
Total				\$233,230
Estimated Project Cost				\$234,000

Project ID:	CU9806
Project Type:	LID Projects at Public Facility.
Location:	Cabells Mill Parking Area. (Ellanor C Lawrence Park). Walney Road north of Cabell's Mill Drive. Big Rocky Run watershed.
Description:	Retrofit existing bioretention area which receives drainage from residential area and improve general drainage



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Retrofit existing bioretention facility				\$37,500
Base Construction Cost				\$37,500
Mobilization (5%)				\$1,875
Subtotal 1				\$39,375
Contingency (25%)				\$9,844
Subtotal 2				\$49,219
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$22,149
Total				\$71,368
Estimated Project Cost				\$72,000

Project ID:	CU9807
Project Type:	LID Projects at Public Facility
Location:	Stringfellow Road Commuter Lot. Stringfellow Road near Route 66. Big Rocky Run watershed.
Description:	Implement LID project at Stringfellow Road commuter lot. Conceptual plan consists of six manufactured bioretention units at two locations. Area served = 2.9 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	6			\$130,050
Base Construction Cost				\$130,050
Mobilization (5%)				\$6,503
Subtotal 1				\$136,553
Contingency (25%)				\$34,138
Subtotal 2				\$170,691
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$76,811
Total				\$247,502
Estimated Project Cost				\$248,000

Project ID:	CU9808
Project Type:	LID Projects at Public Facility
Location:	Poplar Tree Park playing field parking lot. Stringfellow Road near Northbourne Drive. Big Rocky Run watershed.
Description:	Implement LID project at Poplar Tree Park playing field parking lot. Conceptual plan consists of two manufactured bioretention units at one location. Area served = 0.9 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	2			\$37,350
Base Construction Cost				\$37,350
Mobilization (5%)				\$1,868
Subtotal 1				\$39,218
Contingency (25%)				\$9,805
Subtotal 2				\$49,023
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$22,060
Total				\$71,083
Estimated Project Cost				\$72,000

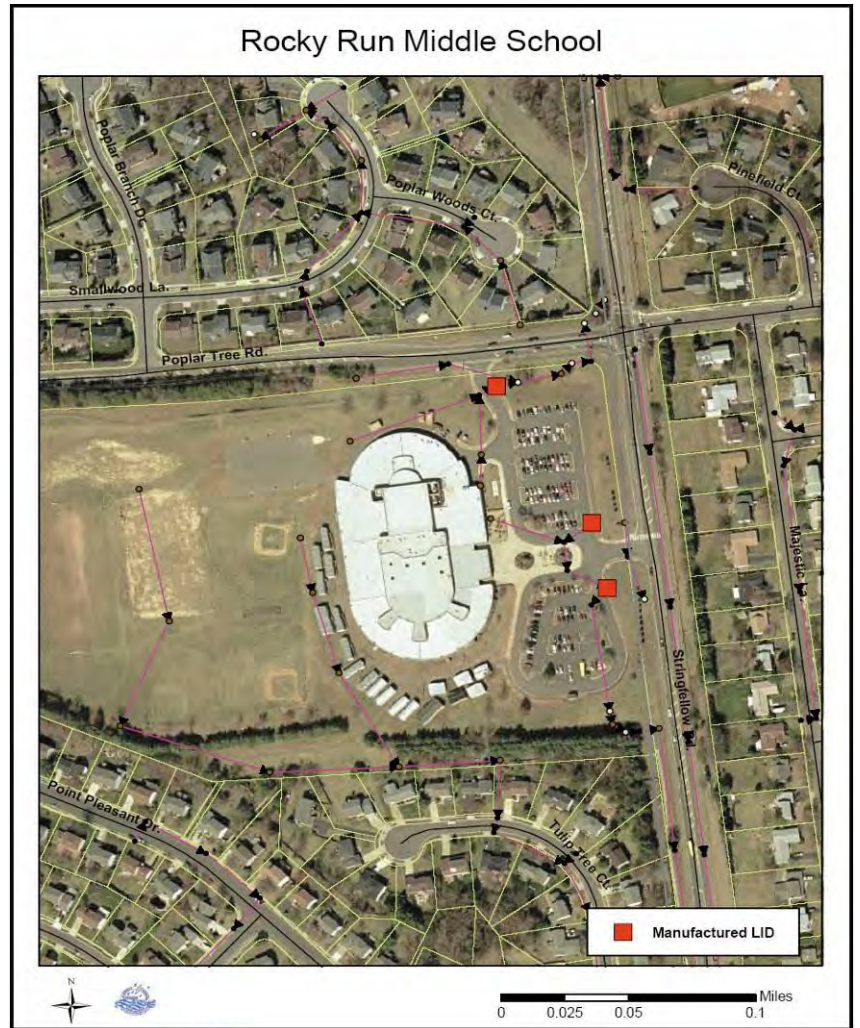
Project ID:	CU9809
Project Type:	LID Projects at Public Facility
Location:	Poplar Tree Elementary School. Melville Lane near Granite Rock Drive. Big Rocky Run watershed.
Description:	Implement LID project at Poplar Tree Elementary School. Conceptual plan consists of three manufactured bioretention units at three locations. Evaluate and retrofit stormwater outfalls from school to Big Rocky Run. Area served = 1.1 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	3			\$53,250
Base Construction Cost				\$53,250
Mobilization (5%)				\$2,663
Subtotal 1				\$55,913
Contingency (25%)				\$13,978
Subtotal 2				\$69,891
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$31,451
Total				\$101,342
Estimated Project Cost				\$102,000

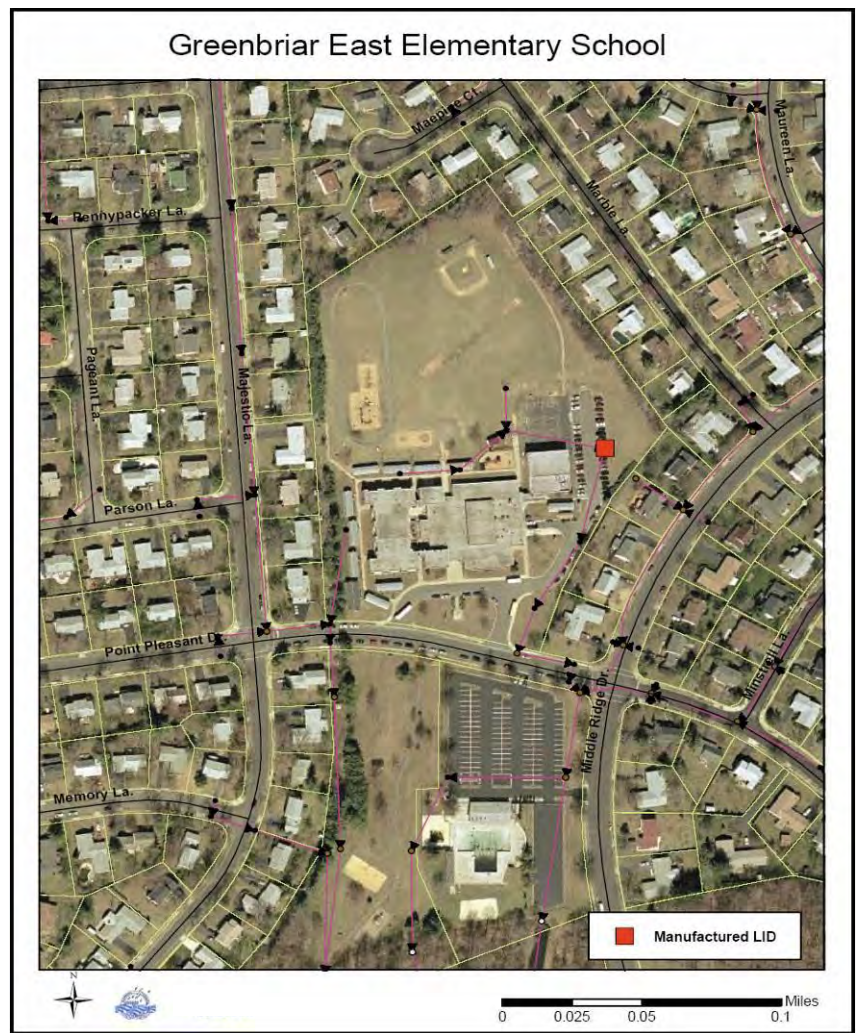
Project ID:	CU9810
Project Type:	LID Projects at Public Facility
Location:	Rocky Run Middle School. Stringfellow Road and Poplar Tree Road. Frog Branch watershed.
Description:	Implement LID project at Rocky Run Middle School. Conceptual plan consists of five manufactured bioretention units at three locations. Area served = 1.9 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	5			\$91,350
Base Construction Cost				\$91,350
Mobilization (5%)				\$4,568
Subtotal 1				\$95,918
Contingency (25%)				\$23,980
Subtotal 2				\$119,898
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$53,954
Total				\$173,852
Estimated Project Cost				\$174,000

Project ID:	CU9811
Project Type:	LID Projects at Public Facility
Location:	Greenbriar East Elementary School. Point Pleasant Drive near Middle Ridge Drive. Big Rocky Run watershed.
Description:	Implement LID project Greenbriar East Elementary School. Conceptual plan consists of one manufactured bioretention unit at one location. Area served = 0.5 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	1			\$22,200
Base Construction Cost				\$22,200
Mobilization (5%)				\$1,110
Subtotal 1				\$23,310
Contingency (25%)				\$5,828
Subtotal 2				\$29,138
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$13,112
Total				\$42,250
Estimated Project Cost				\$43,000

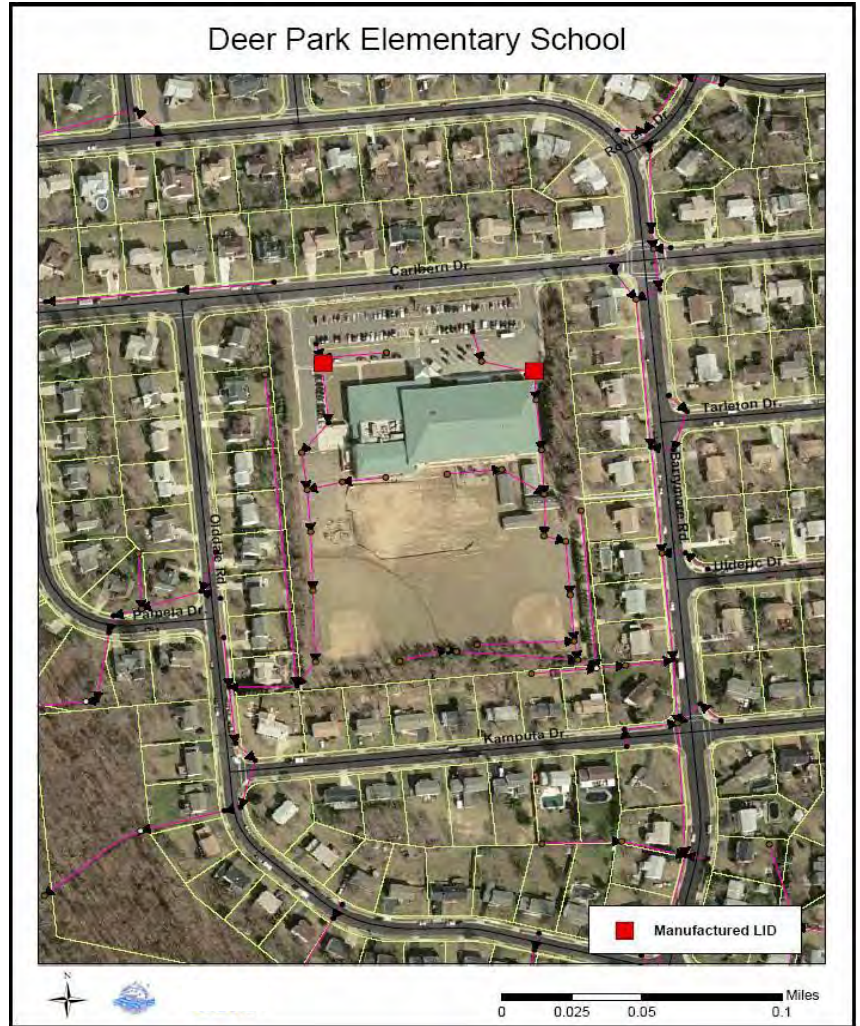
Project ID:	CU9812
Project Type:	LID Projects at Public Facility
Location:	Stone Middle School. Braddock Road and Sully Park Drive. Round Lick Branch.
Description:	Implement LID project at Stone Middle School. Conceptual plan consists of three manufactured bioretention units at two locations. Area served = 1.6 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	3			\$66,600
			Base Construction Cost	\$66,600
			Mobilization (5%)	\$3,330
			Subtotal 1	\$69,930
			Contingency (25%)	\$17,483
			Subtotal 2	\$87,413
			Engineering design, surveys, land acquisition, utility locations, and permits (45%)	\$39,336
			Total	\$126,749
			Estimated Project Cost	\$127,000

Project ID:	CU9813
Project Type:	LID Projects at Public Facility
Location:	Deer Park Elementary School. Carlbern Drive at Barrymore Road. Middle Cub Run watershed.
Description:	Implement LID project at Deer Park Elementary School. Conceptual plan consists of four manufactured bioretention units at two locations. Area served = 1.8 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	4			\$79,350
Base Construction Cost				\$79,350
Mobilization (5%)				\$3,968
Subtotal 1				\$83,318
Contingency (25%)				\$20,830
Subtotal 2				\$104,148
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$46,867
Total				\$151,015
Estimated Project Cost				\$152,000

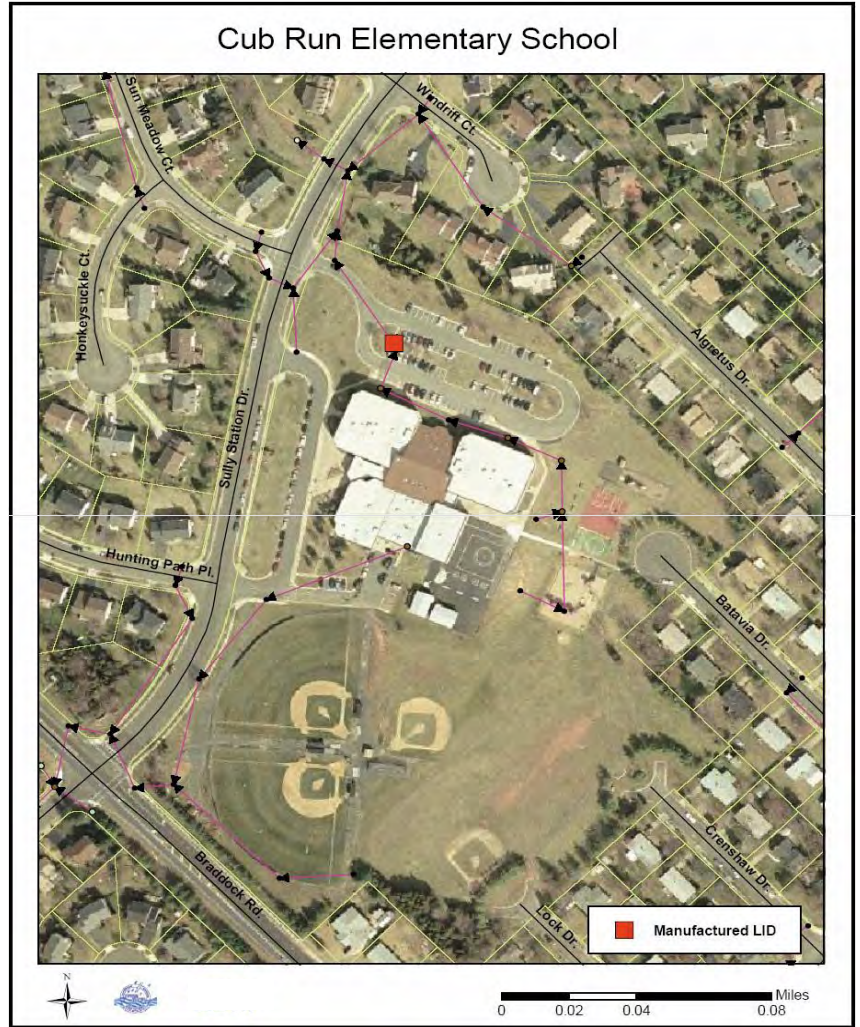
Project ID:	CU9814
Project Type:	LID Projects at Public Facility
Location:	Virginia Run Elementary School. Pleasant Valley Road and Martins Hundred Drive. Middle Cub Run watershed.
Description:	Implement LID project at Virginia Run Elementary School. Conceptual plan consists of two manufactured bioretention units at two locations. Area served = 1.0 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	2			\$44,400
Base Construction Cost				\$44,400
Mobilization (5%)				\$2,220
Subtotal 1				\$46,620
Contingency (25%)				\$11,665
Subtotal 2				\$58,275
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$26,224
Total				\$84,499
Estimated Project Cost				\$85,000

Project ID:	CU9815
Project Type:	LID Projects at Public Facility
Location:	Cub Run Elementary School. Braddock Road and Sully Station Drive. Flatlick Branch watershed.
Description:	Implement LID project at Cub Run Elementary School. Conceptual plan consists of two manufactured bioretention units at one location. Area served = 1.0 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	2			\$41,250
			Base Construction Cost	\$41,250
			Mobilization (5%)	\$2,063
			Subtotal 1	\$43,313
			Contingency (25%)	\$10,828
			Subtotal 2	\$54,141
			Engineering design, surveys, land acquisition, utility locations, and permits (45%)	\$24,363
			Total	\$78,504
			Estimated Project Cost	\$79,000

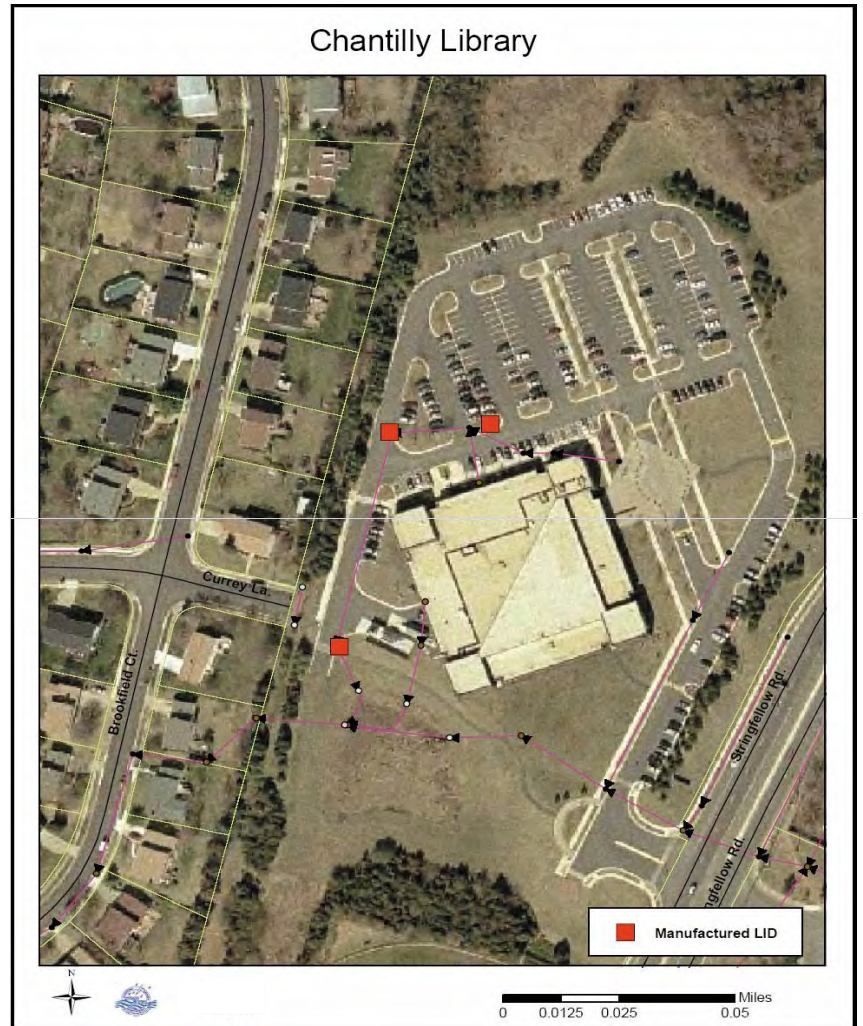
Project ID:	CU9816
Project Type:	LID Projects at Public Facility
Location:	Sully District Supervisor's Office. Stonecroft Boulevard west of Westfields Boulevard. Flatlick Branch watershed.
Description:	Implement LID project at Sully District Supervisor's Office. Conceptual plan consists of one manufactured bioretention unit at one location. Area served = 0.5 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	1			\$22,200
Base Construction Cost				\$22,200
Mobilization (5%)				\$1,110
Subtotal 1				\$23,310
Contingency (25%)				\$5,828
Subtotal 2				\$29,138
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$13,112
Total				\$42,250
Estimated Project Cost				\$43,000

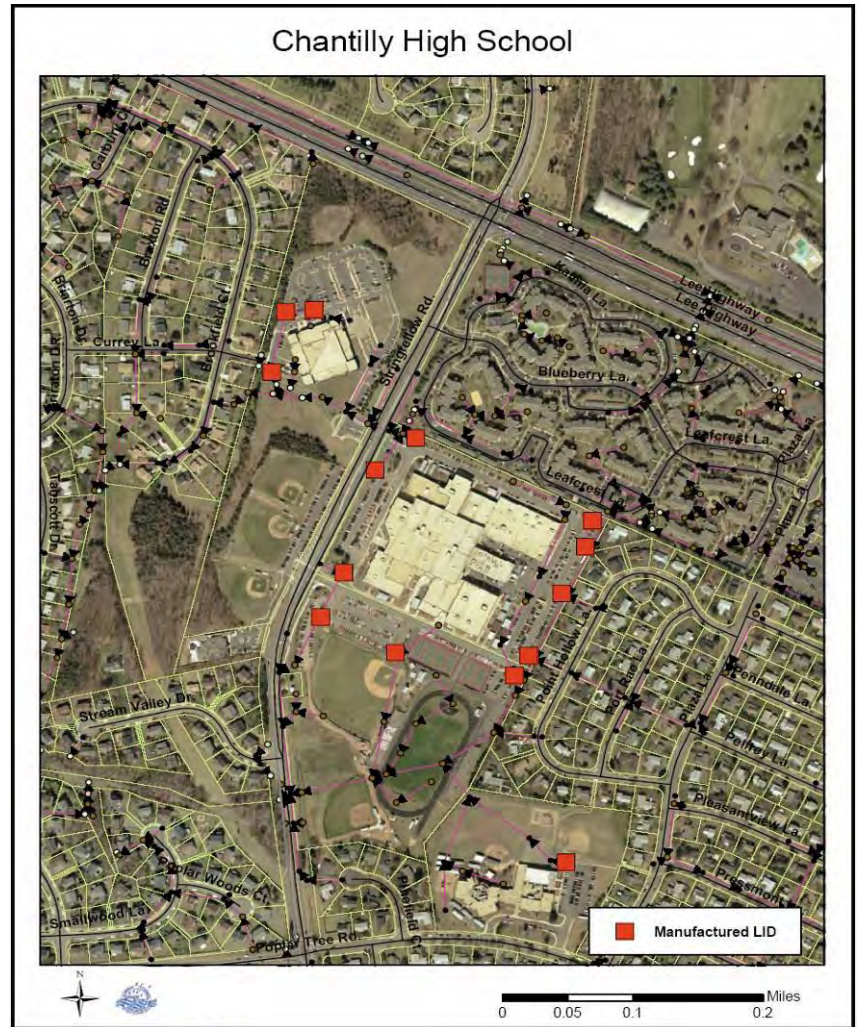
Project ID:	CU9817
Project Type:	LID Projects at Public Facility
Location:	Chantilly Library. Stringfellow Road south of Route 50. Frog Branch watershed.
Description:	Implement LID project at Chantilly Library. Conceptual plan consists of five manufactured bioretention units at three locations. Area served = 2.0 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	5			\$92,850
			Base Construction Cost	\$92,850
			Mobilization (5%)	\$4,643
			Subtotal 1	\$97,493
			Contingency (25%)	\$24,373
			Subtotal 2	\$121,866
			Engineering design, surveys, land acquisition, utility locations, and permits (45%)	\$54,840
			Total	\$176,706
			Estimated Project Cost	\$177,000

Project ID:	CU9818
Project Type:	LID Projects at Public Facility
Location:	Chantilly High School. Stringfellow Road south of Route 50. Frog Branch watershed.
Description:	Implement LID project at Chantilly High School. Conceptual plan consists of sixteen manufactured bioretention units at ten locations. Area served = 6.4 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	16			\$303,000
Base Construction Cost				\$303,000
Mobilization (5%)				\$15,150
Subtotal 1				\$318,150
Contingency (25%)				\$79,538
Subtotal 2				\$397,688
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$178,960
Total				\$576,648
Estimated Project Cost				\$577,000

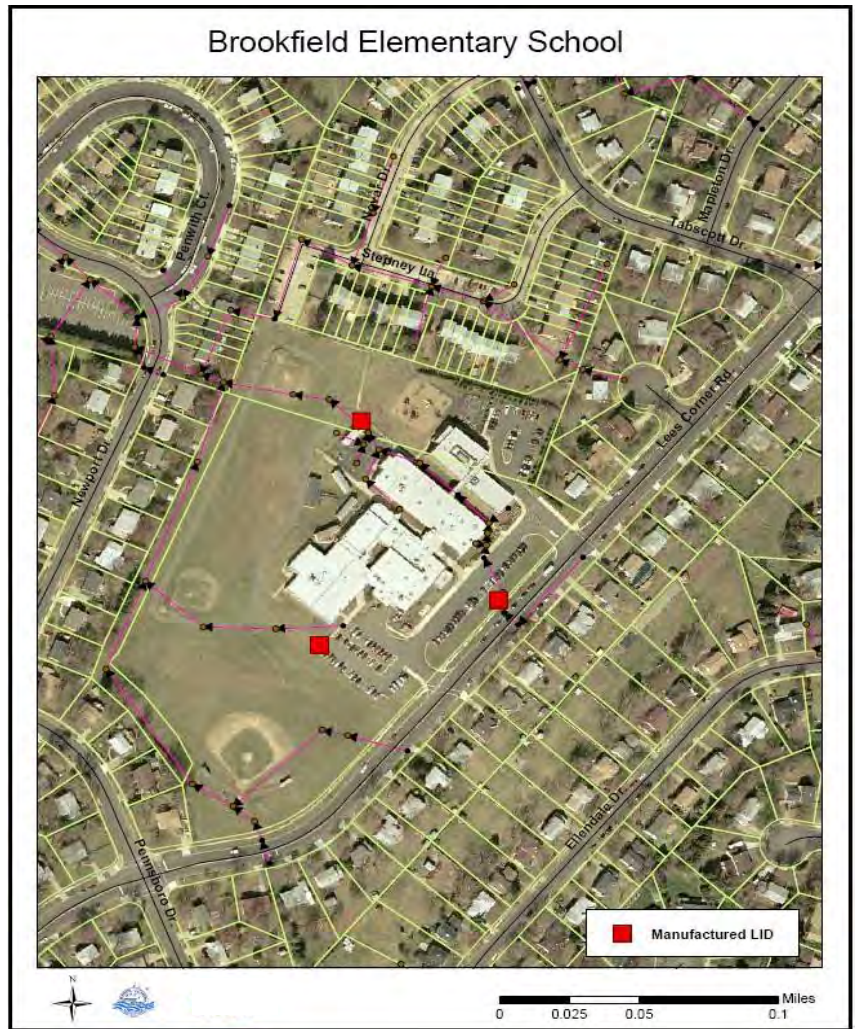
Project ID:	CU9819
Project Type:	LID Projects at Public Facility
Location:	Greenbriar West Elementary School. Poplar Tree Road near Plaza Lane. Frog Branch watershed.
Description:	Implement LID project at Greenbriar West Elementary School. Conceptual plan consists of two manufactured bioretention units at one location. Area served = 0.7 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	2			\$33,750
Base Construction Cost				\$33,750
Mobilization (5%)				\$1,688
Subtotal 1				\$35,438
Contingency (25%)				\$8,860
Subtotal 2				\$44,298
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$19,934
Total				\$64,232
Estimated Project Cost				\$65,000

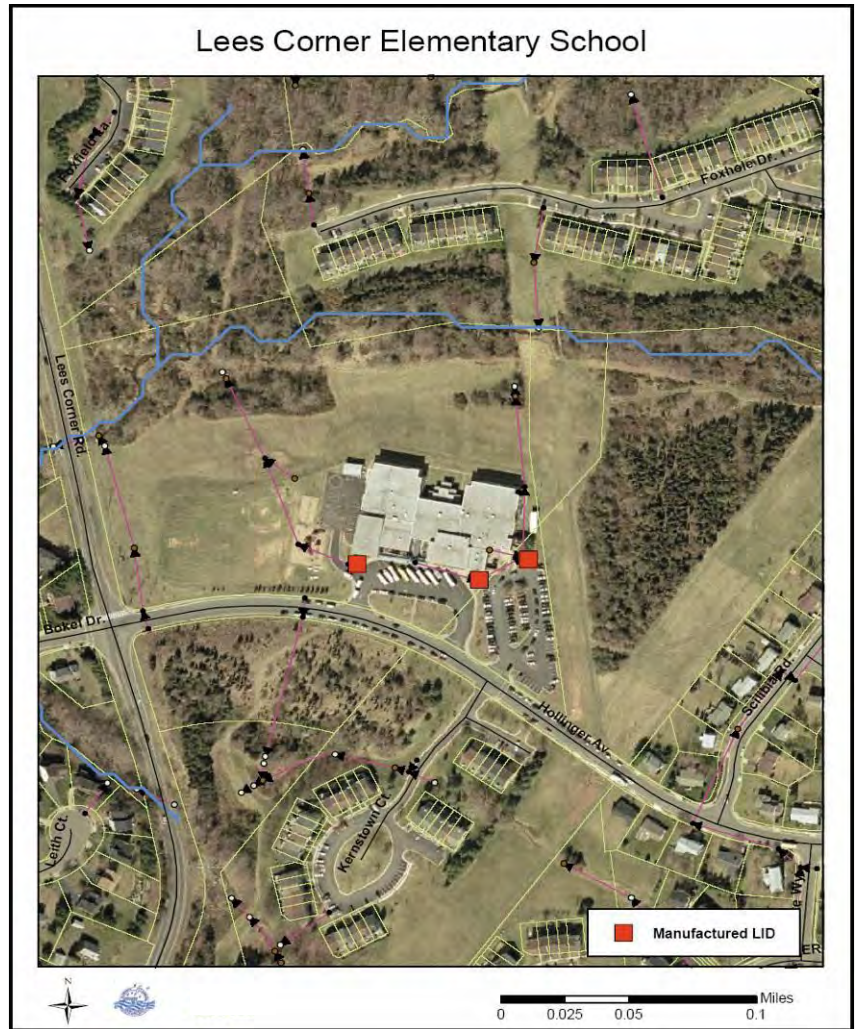
Project ID:	CU9820
Project Type:	LID Projects at Public Facility
Location:	Brookfield Elementary School. Lees Corner Road south of Tabscott Drive. Frog Branch and Flatlick Branch watersheds.
Description:	Implement LID project at Brookfield Elementary School. Conceptual plan consists of four manufactured bioretention units at three locations. Area served = 1.7 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	4			\$78,600
Base Construction Cost				\$78,600
Mobilization (5%)				\$3,930
Subtotal 1				\$82,520
Contingency (25%)				\$20,633
Subtotal 2				\$103,163
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$46,423
Total				\$149,586
Estimated Project Cost				\$150,000

Project ID:	CU9821
Project Type:	LID Projects at Public Facility
Location:	Lees Corner Elementary School. Hollinger Avenue east of Lees Corner Road. Oxlick Branch.
Description:	Implement LID project at Lees Corner Elementary School. Conceptual plan consists of three manufactured bioretention units at three locations. Area served = 1.1 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	3			\$52,800
Base Construction Cost				\$52,800
Mobilization (5%)				\$2,640
Subtotal 1				\$55,440
Contingency (25%)				\$13,860
Subtotal 2				\$69,300
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$31,185
Total				\$100,485
Estimated Project Cost				\$101,000

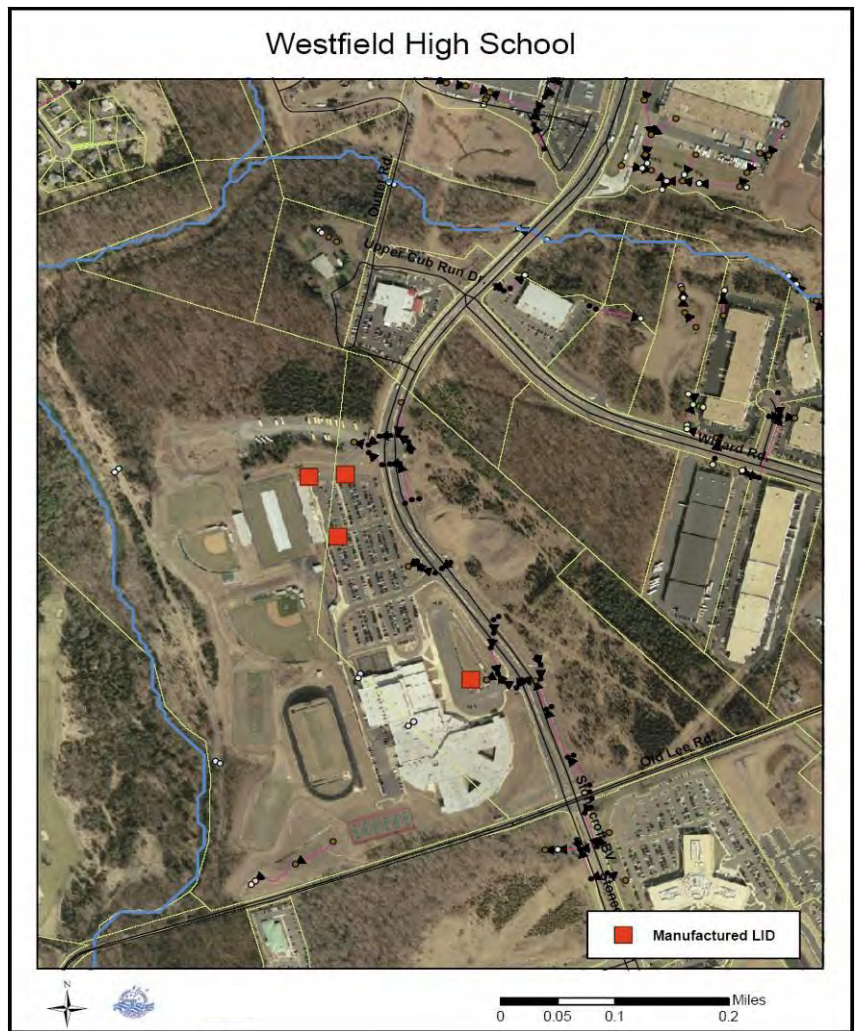
Project ID:	CU9822
Project Type:	LID Projects at Public Facility
Location:	Navy Elementary School. West Ox Road and Ox Trail. Oxlick Branch.
Description:	Implement LID project at Navy Elementary School. Conceptual plan consists of two manufactured bioretention units at two locations. Area served = 0.6 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	2			\$30,300
Base Construction Cost				\$30,300
Mobilization (5%)				\$1,515
Subtotal 1				\$31,815
Contingency (25%)				\$7,954
Subtotal 2				\$39,769
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$17,896
Total				\$57,665
Estimated Project Cost				\$58,000

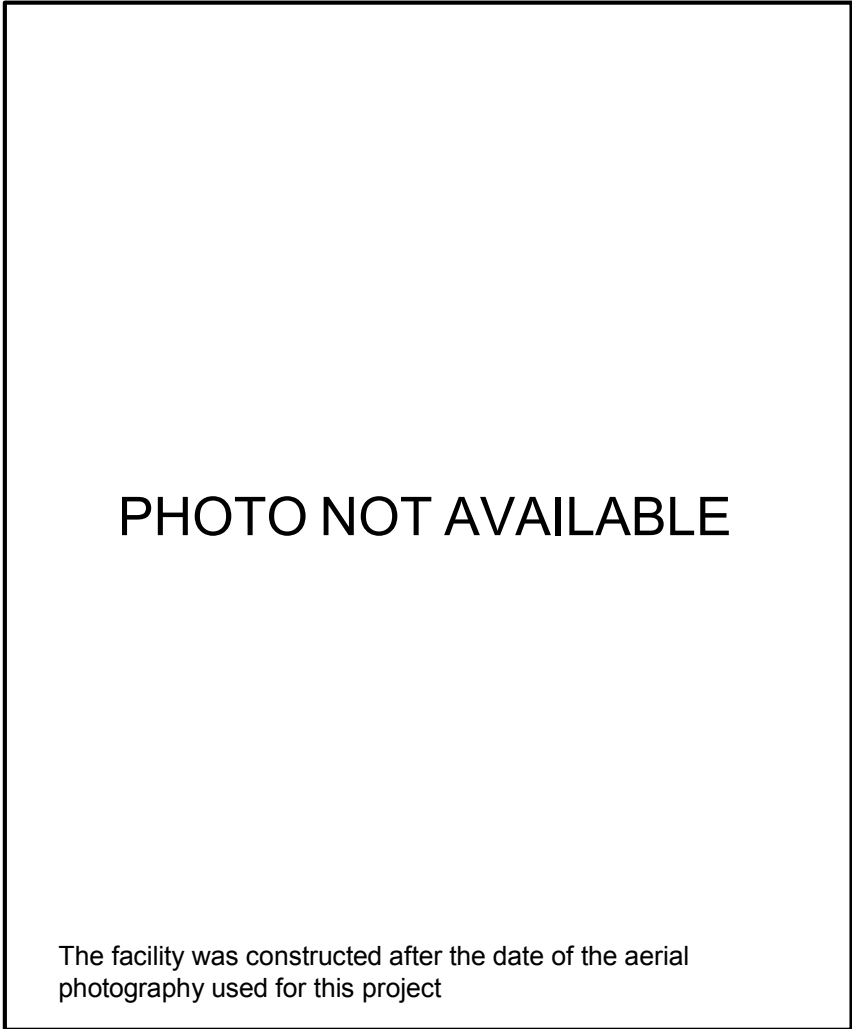
Project ID:	CU9823
Project Type:	LID Projects at Public Facility
Location:	Westfield High School, Stonecroft Boulevard and Old Lee Road. Upper Cub Run watershed.
Description:	Implement LID project at Westfield High School. Conceptual plan consists of four manufactured bioretention units at four locations. Area served = 1.5 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	4			\$67,950
Base Construction Cost				\$67,950
Mobilization (5%)				\$3,398
Subtotal 1				\$71,348
Contingency (25%)				\$17,837
Subtotal 2				\$89,185
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$40,133
Total				\$129,318
Estimated Project Cost				\$130,000

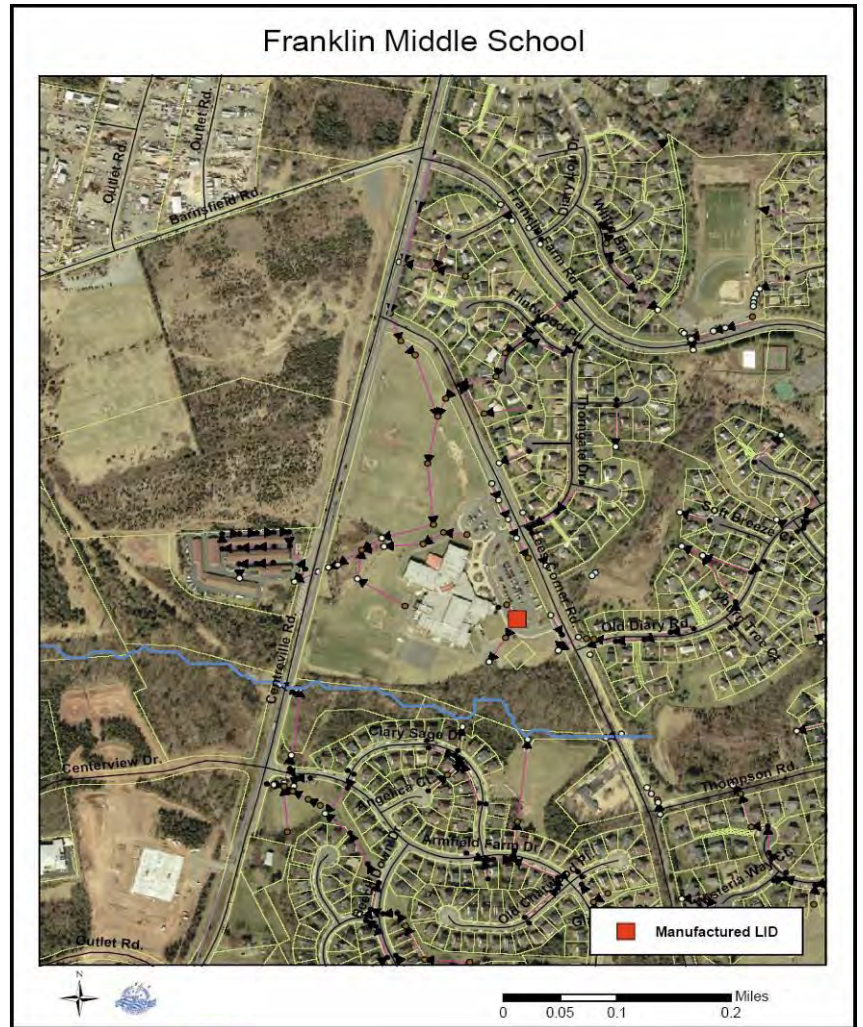
Project ID:	CU9824
Project Type:	LID Projects at Public Facility
Location:	Cub Run Recreation Center, Stonecroft Boulevard. Upper Cub Run watershed.
Description:	Implement LID project at Cub Run Recreation Center. Conceptual plan consists of three manufactured bioretention units at one location. Area served = 1.5 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	3			\$66,600
Base Construction Cost				\$66,600
Mobilization (5%)				\$3,330
Subtotal 1				\$69,930
Contingency (25%)				\$17,483
Subtotal 2				\$87,413
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$39,336
Total				\$126,749
Estimated Project Cost				\$127,000

Project ID:	CU9825
Project Type:	LID Projects at Public Facility
Location:	Franklin Middle School. Centreville Road and Lees Corner Road. Cain Branch Watershed.
Description:	Implement LID project at Franklin Middle School. Conceptual plan consists of one manufactured bioretention unit at one location. Area served = 0.6 acres



The number and types of bioretention units included in the conceptual design form the basis for the construction cost estimate included in the plan. The sites will be evaluated for alternative onsite LID options such as conventional bioretention rain gardens, porous pavement, drainage swales, etc at the time that preliminary design evaluations are performed.

Project Cost Estimate				
Item	Quantity	Unit	Unit Cost	Total Cost
Manufactured Bioretention Units	1			\$22,200
			Base Construction Cost	\$22,200
			Mobilization (5%)	\$1,110
			Subtotal 1	\$23,310
			Contingency (25%)	\$5,828
			Subtotal 2	\$29,138
			Engineering design, surveys, land acquisition, utility locations, and permits (45%)	\$13,112
			Total	\$42,250
			Estimated Project Cost	\$43,000

Fact Sheets

Projects CU9901 through CU9909

Cub Run Watershed Dump Site Removal Projects

Projects CU9901 through CU9909

Project ID:	CU9901
Project Type:	Dump Site Removal Project
Location:	Left bank flood plain, Lower Cub Run, Bull Run Regional Park near UOSA Advanced Wastewater Treatment Plant,
Description:	55-gallon drums (empty), above ground tank. Impact score of 5. (CUCU004.M001)
Estimated Project Cost:	\$5,000



Project ID:	CU9902
Project Type:	Dump Site Removal Project
Location:	Left Bank flood plain, Lower Cub Run, Bull Run Regional Park near UOSA Advanced Wastewater Treatment Plant.
Description:	Appliances, trash, tires and miscellaneous debris. Impact score of 10. (CUCU004.M002)
Estimated Project Cost:	\$5,000



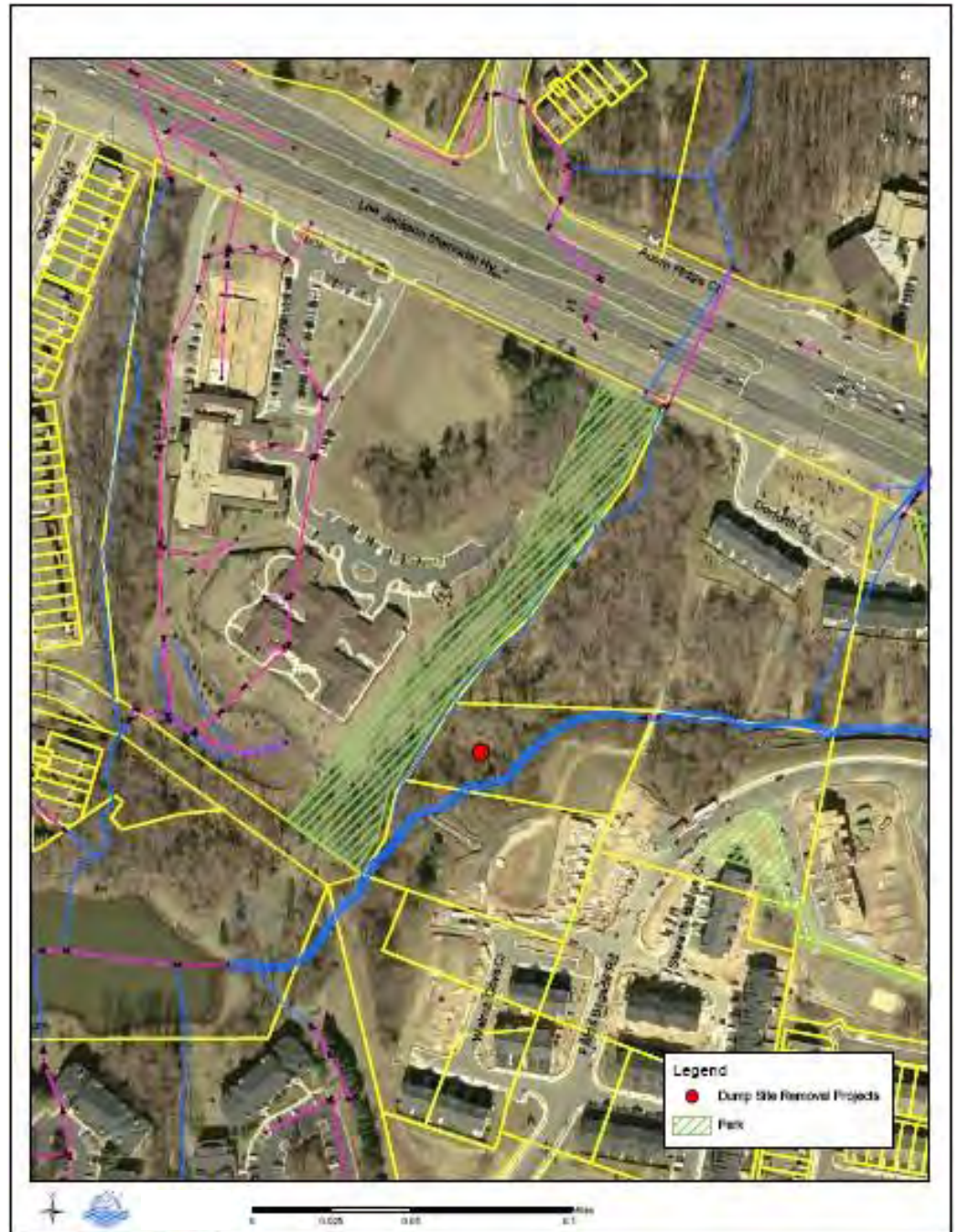
Project ID:	CU9903
Project Type:	Dump Site Removal Project
Location:	Left Bank instream, Tributary to Lower Cub Run downstream from Compton Road and upstream from Cub Run
Description:	55-Gallon Drums (closed). Impact score of 8. (CUCU014.M001) -Private Property
Estimated Project Cost:	\$5,000



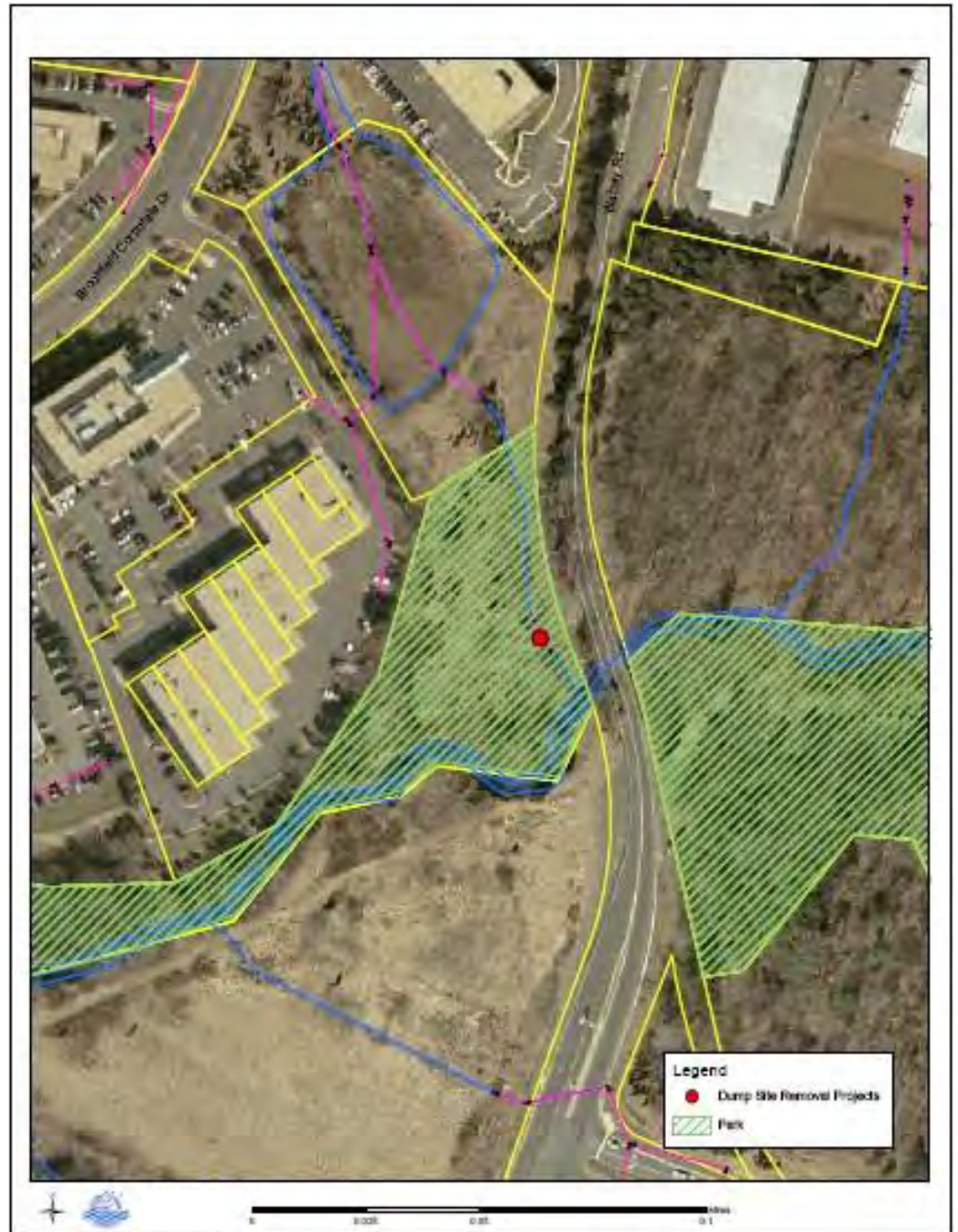
Project ID:	CU9904
Project Type:	Dump Site Removal Project
Location:	Left Bank flood plain, Big Rocky Run downstream from Braddock Road
Description:	55-Gallon Drums (closed). Impact score of 8. (CUCU014.M001) -Private Property
Estimated Project Cost:	\$5,000



Project ID:	CU9905
Project Type:	Dump Site Removal Project
Location:	Left bank flood plain, Big Rocky Run downstream from Route 50
Description:	Trash and car. Impact score of 5. (CUBR089.M001)
Estimated Project Cost:	\$5,000



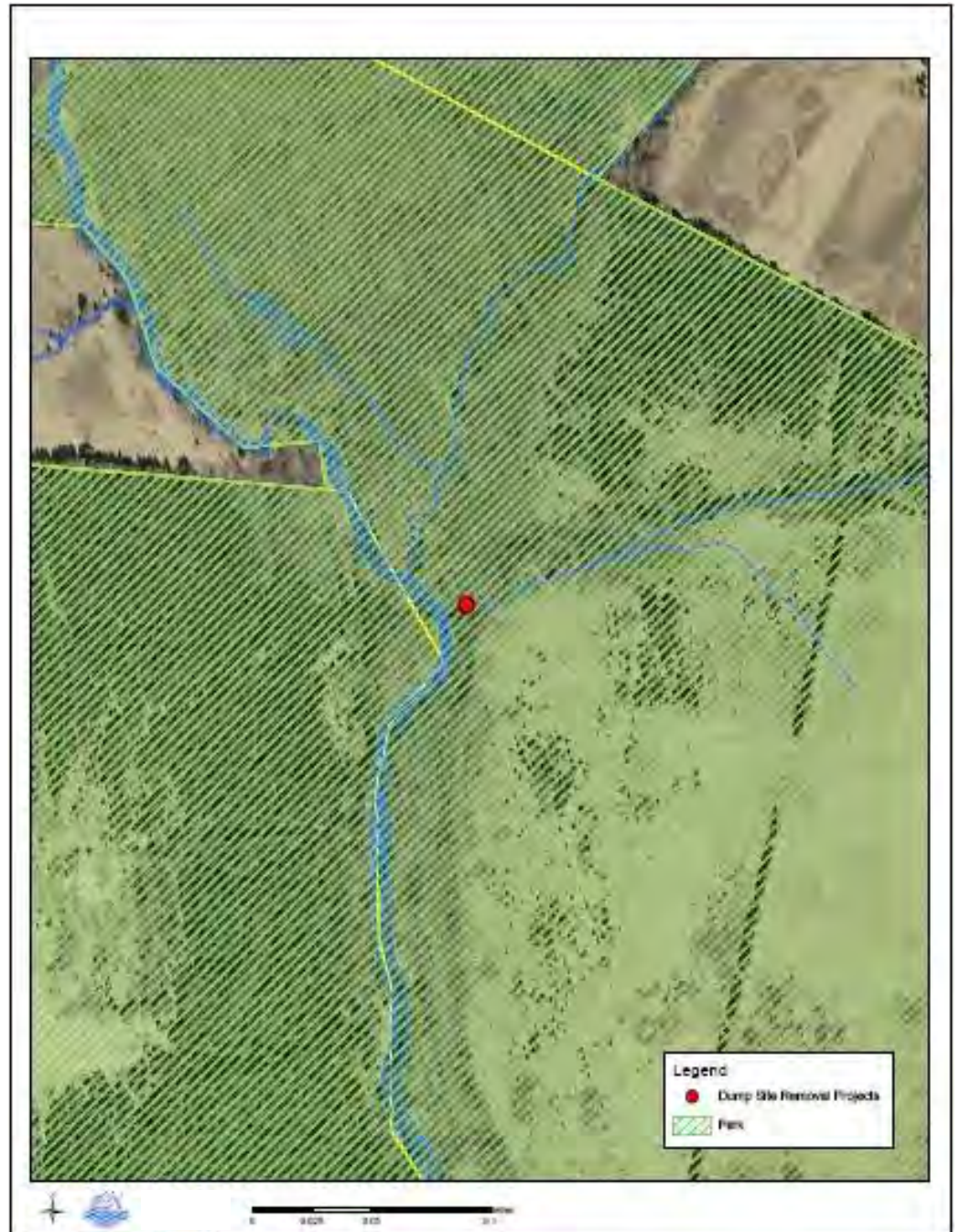
Project ID:	CU9906
Project Type:	Dump Site Removal Project
Location:	Both banks flood plain, Flatlick Branch at Walney Road
Description:	Construction Debris. Impact score of 4. (CUFL102.M001)
Estimated Project Cost:	\$5,000



Project ID:	CU9907
Project Type:	Dump Site Removal Project
Location:	Both banks instream, Frog Branch near Stringfellow Road south of Stream Valley Drive.
Description:	Cast iron pipes in stream at utility crossing. Impact score of 4. (CUFR002.M002)
Estimated Project Cost:	\$5,000



Project ID:	CU9908
Project Type:	Dump Site Removal Project
Location:	Both banks instream. Elklick Run within FCPA Parkland. Downstream from Braddock Road
Description:	Appliances. Impact score of 3. (CUER009.M001)
Estimated Project Cost:	\$5,000



Project ID:	CU9909
Project Type:	Dump Site Removal Project
Location:	Left Bank, Cub Run and Schneider Branch off Stonecroft Boulevard.
Description:	Clean up existing debris and eliminate future dumping at the site of the old Upper Cub Run Wastewater Treatment Plant
Estimated Project Cost:	\$5,000



Fact Sheets

Projects CU9910 through CU9915

Cub Run Watershed Other Projects

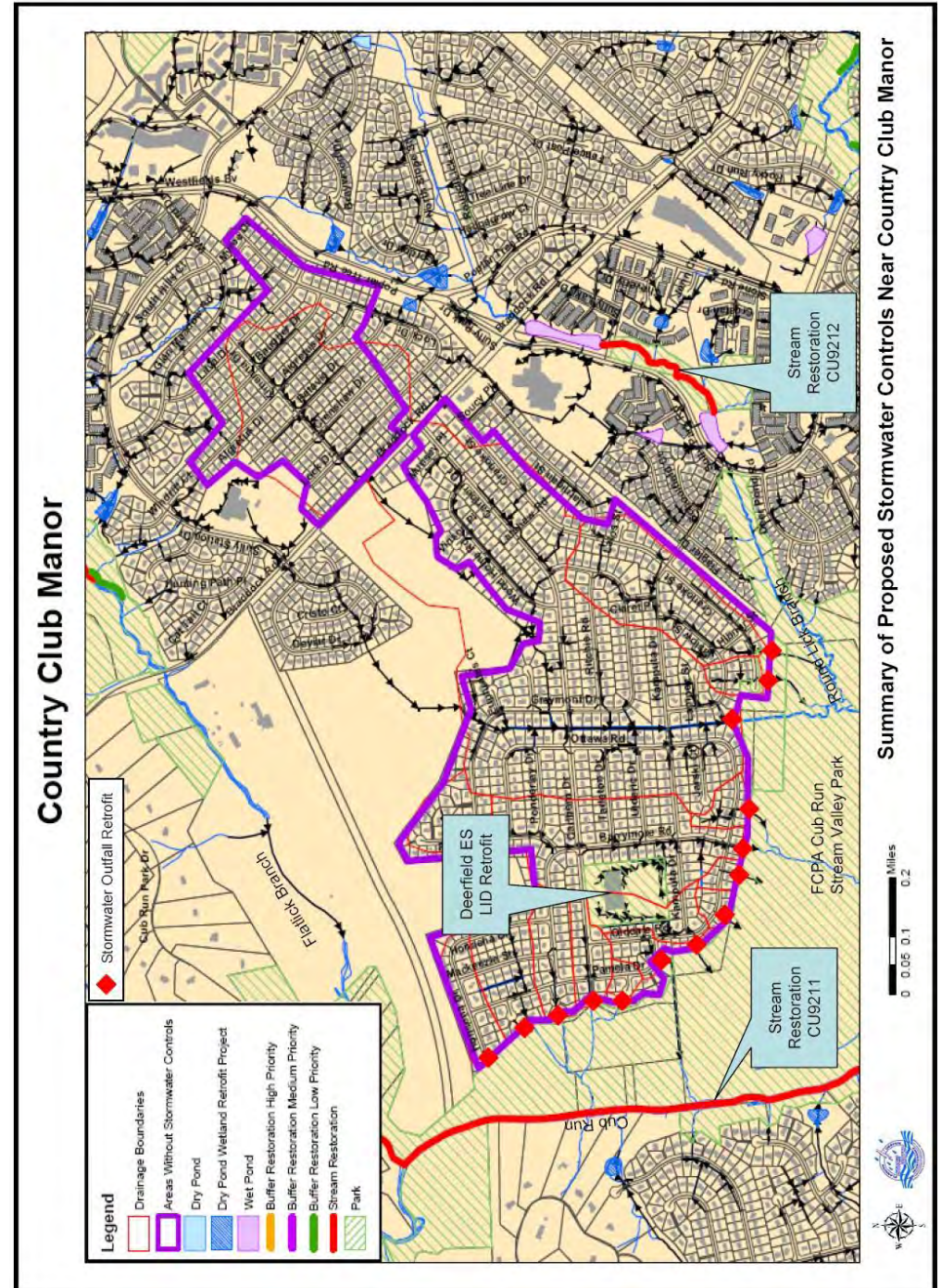
Neighborhoods without Stormwater Controls
Upland Drainage Improvement Projects
Wetland and Riparian Restoration Projects

Projects CU9910 through CU9915

Project ID:	CU9910
Project Type:	Neighborhoods Without Stormwater Controls
Location:	Country Club Manor
Description:	Implement stream outfall improvement projects, promote LID and perform other structural projects to control runoff from this neighborhood without stormwater controls.

Project Cost Estimate *				
Item	Qty	Units	Unit Cost	Total Cost
Public Outreach				\$46,400
Outfall Retrofit	14	Each	\$20,000	\$280,000
Base Construction Cost				\$326,400
Mobilization (5%)				\$16,320
Subtotal 1				\$342,720
Contingency (25%)				\$85,680
Subtotal 2				\$428,400
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$192,780
Total				\$621,180
Estimated Project Cost				\$622,000

* - Cost for public outreach for LID and outfall retrofit projects. Costs for other structural projects are documented separately.

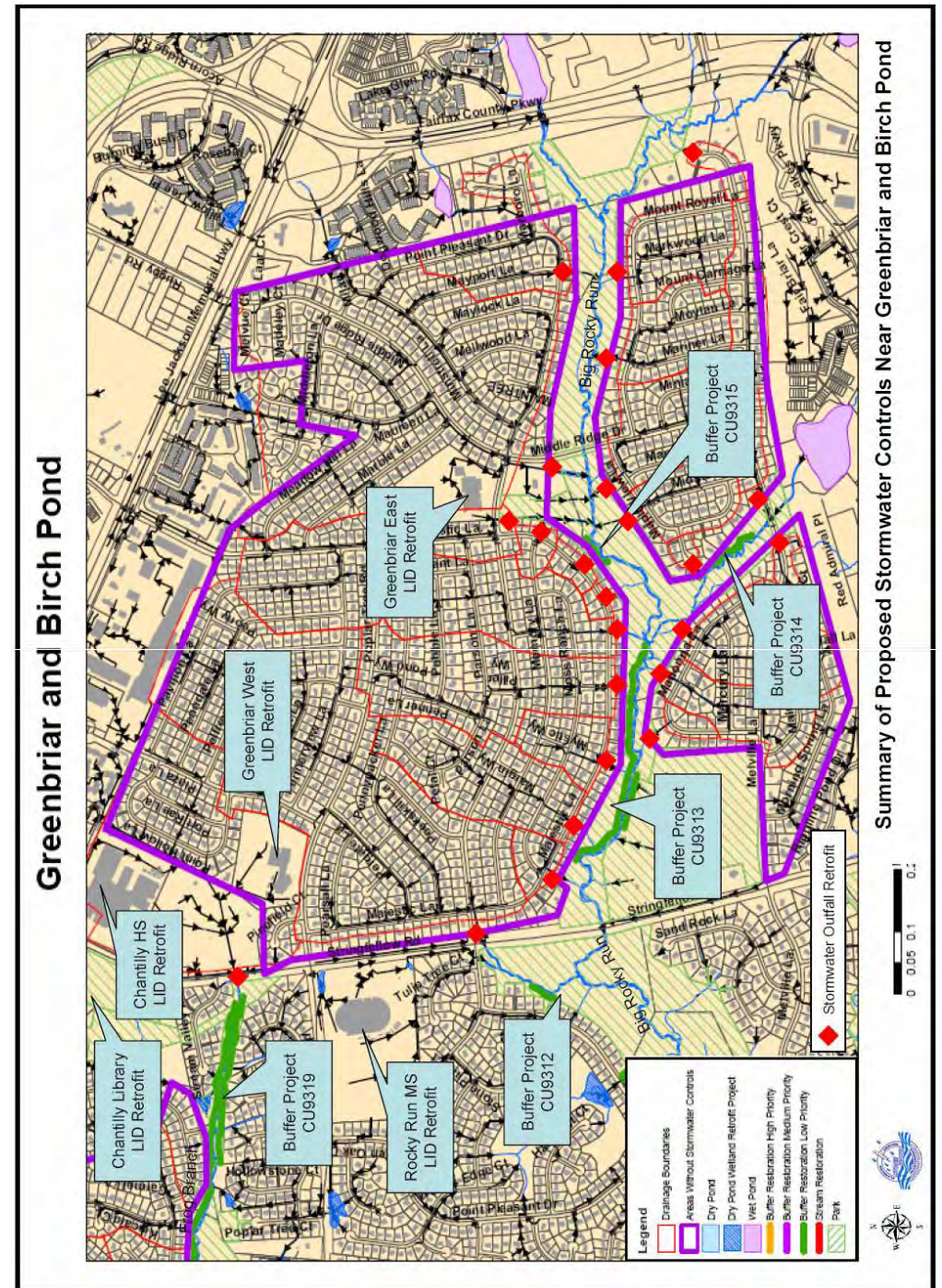


Country Club Manor
Summary of Proposed Stormwater Controls Near Country Club Manor

Project ID:	CU9911
Project Type:	Neighborhoods Without Stormwater Controls
Location:	Greenbriar and Birch Pond
Description:	Implement stream outfall improvement projects, promote LID and perform other structural projects to control runoff from this neighborhood without stormwater controls.

Project Cost Estimate *				
Item	Qty	Units	Unit Cost	Total Cost
Public Outreach				\$57,300
Outfall Retrofits	14	Each	\$20,000	\$280,000
Base Construction Cost				\$337,300
Mobilization (5%)				\$16,865
Subtotal 1				\$354,165
Contingency (25%)				\$88,541
Subtotal 2				\$442,706
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$199,218
Total				\$641,924
Estimated Project Cost				\$642,000

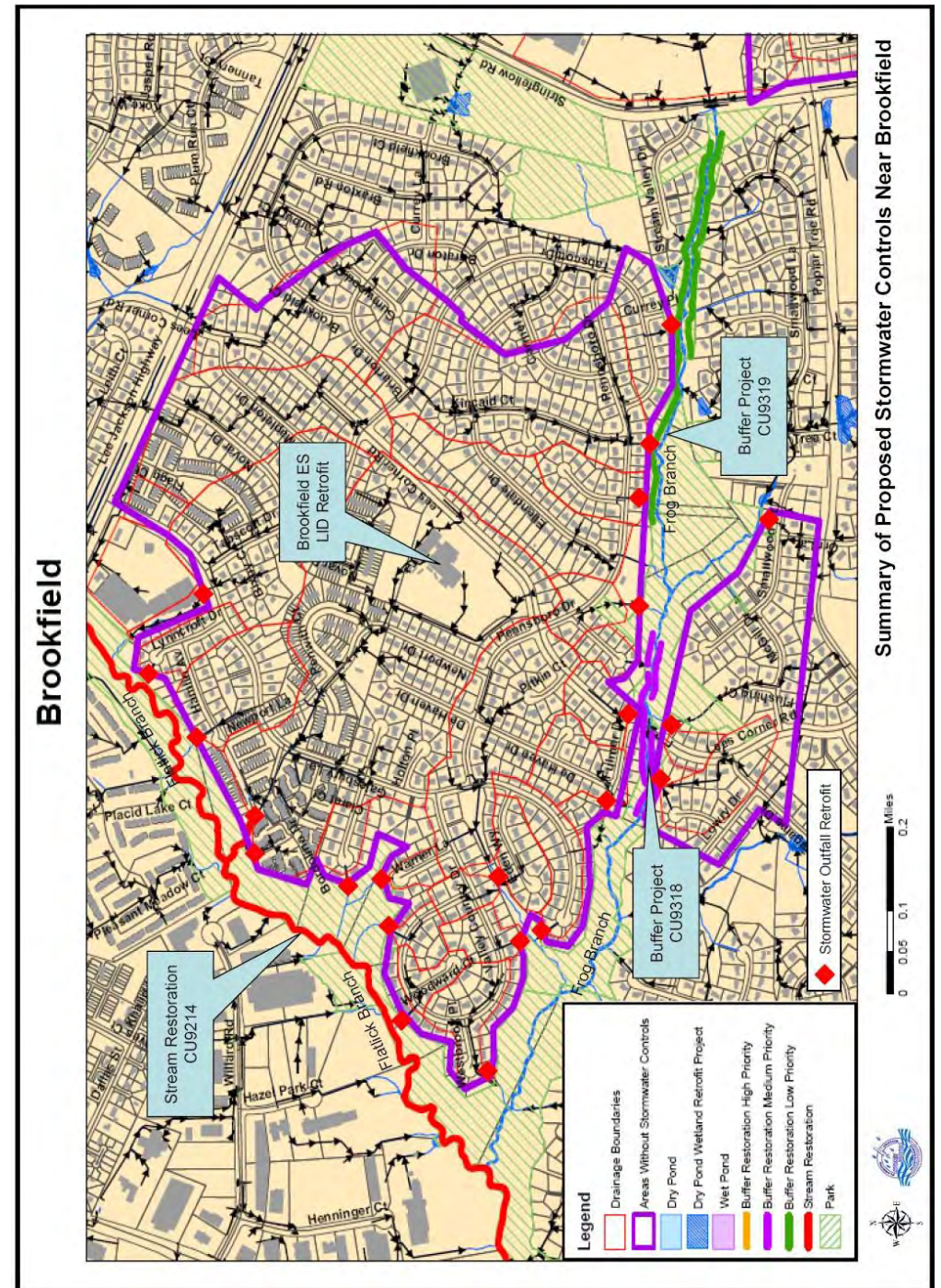
* - Cost for public outreach for LID and outfall retrofit projects. Costs for other structural projects are documented separately.



Project ID:	CU9912
Project Type:	Neighborhood Without Stormwater Controls
Location:	Brookfield
Description:	Implement stream outfall improvement projects, promote LID and perform other structural projects to control runoff from this neighborhood without stormwater controls.

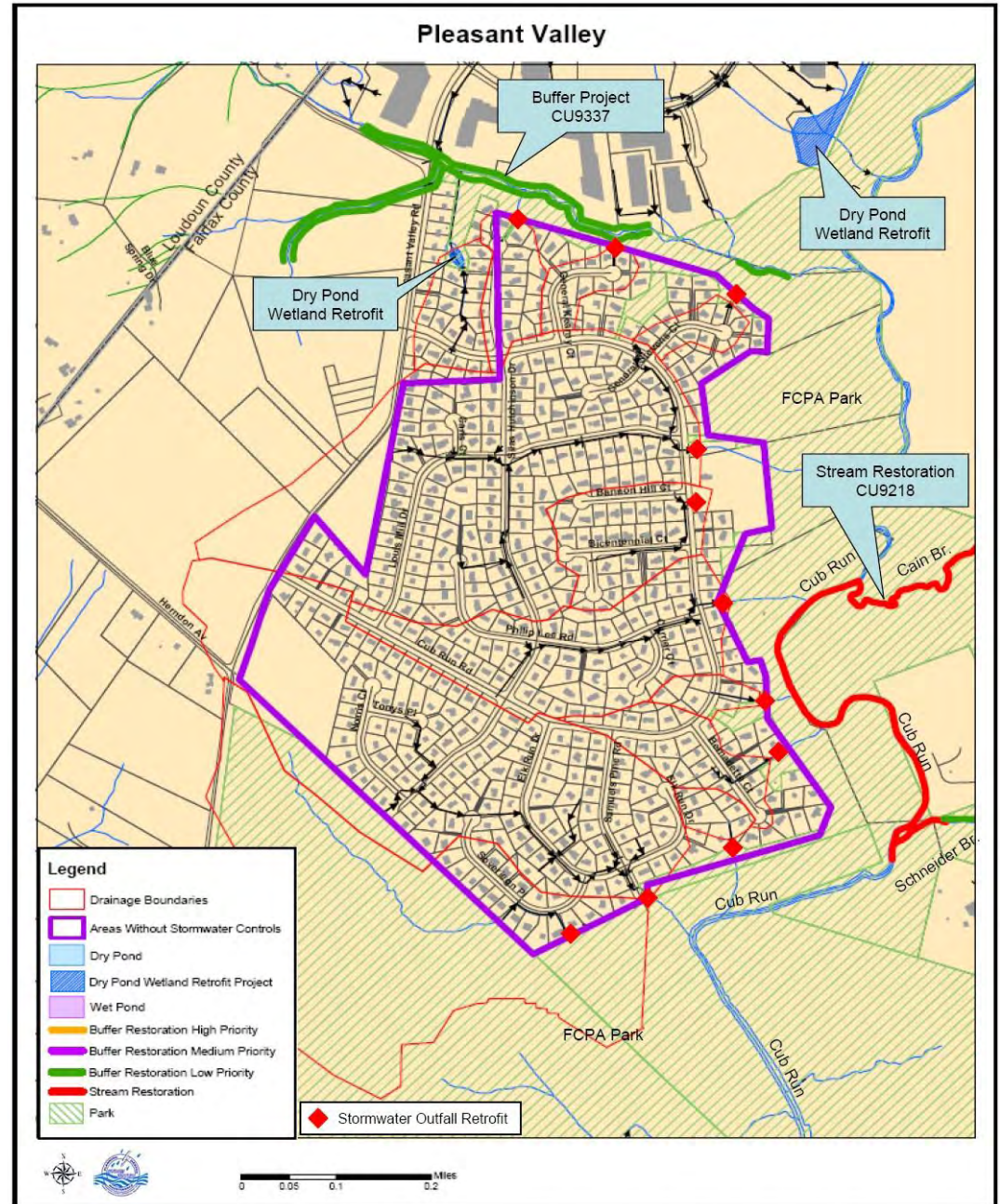
Project Cost Estimate *				
Item	Qty	Units	Unit Cost	Total Cost
Public Outreach				\$45,200
Outfall Retrofit	22	Each	\$20,000	\$440,000
Base Construction Cost				\$485,200
Mobilization (5%)				\$24,260
Subtotal 1				\$509,460
Contingency (25%)				\$127,365
Subtotal 2				\$636,825
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$286,571
Total				\$923,396
Estimated Project Cost				\$924,000

* - Cost for public outreach for LID and outfall retrofit projects. Costs for other structural projects are documented separately.



Project ID:	CU9913
Project Type:	Neighborhoods Without Stormwater Controls
Location:	Pleasant Valley
Description:	Implement stream outfall improvement projects, promote LID and perform other structural projects to control runoff from this neighborhood without stormwater controls.

Project Cost Estimate *				
Item	Qty	Units	Unit Cost	Total Cost
Public Outreach				\$39,600
Outfall Retrofit	11	Each	\$20,000	\$220,000
Base Construction Cost				\$259,600
Mobilization (5%)				\$12,980
Subtotal 1				\$272,580
Contingency (25%)				\$65,145
Subtotal 2				\$340,725
Engineering design, surveys, land acquisition, utility locations, and permits (45%)				\$153,326
Total				\$494,051
Estimated Project Cost				\$495,000



* - Cost for public outreach for LID and outfall retrofit projects. Costs for other structural projects are documented separately.

Summary of Proposed Stormwater Controls Near Pleasant Valley

Project ID:	CU9914
Project Type:	Upland Drainage Retrofit Projects
Location:	Headwater areas of watershed focused on Cain Branch upstream from Route 28, Flatlick Branch upstream from Route 50, and Big Rocky Run upstream from Route 50.
Description:	General funds for currently unidentified stormwater improvement projects in upland areas to address flooding and stream erosion issues. Projects will be performed in combination with other projects or on an as-needed basis when projects are identified through the public outreach program.
Estimated Project Cost:	\$600,000 for each 5-year plan increment for a total cost of \$3,000,000

Project ID:	CU9915
Project Type:	Riparian Wetland Study
Location:	Throughout watershed
Description:	Perform study to identify riparian wetland areas and evaluate for restoration need and potential.
Estimated Project Cost:	\$100,000