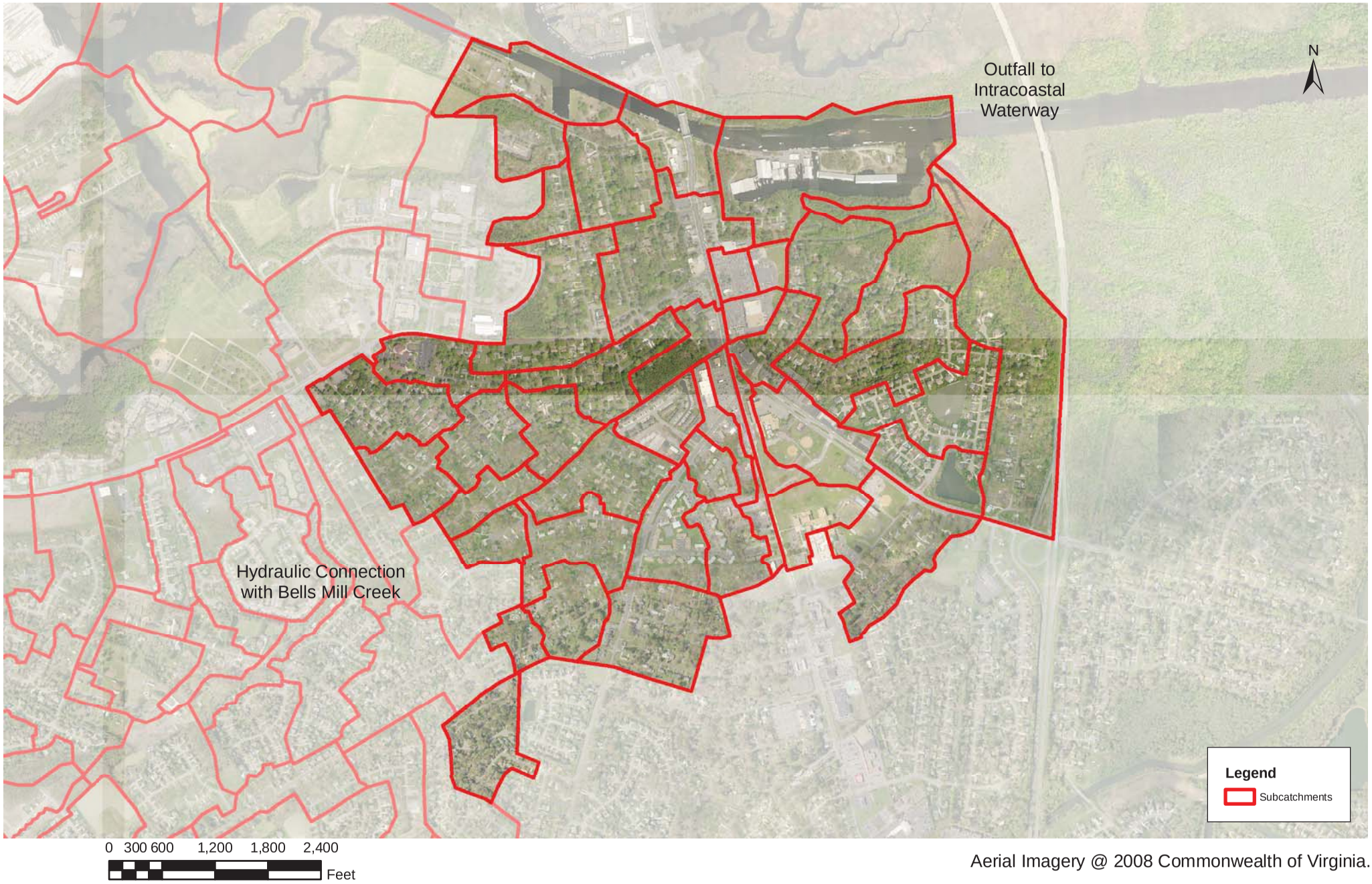
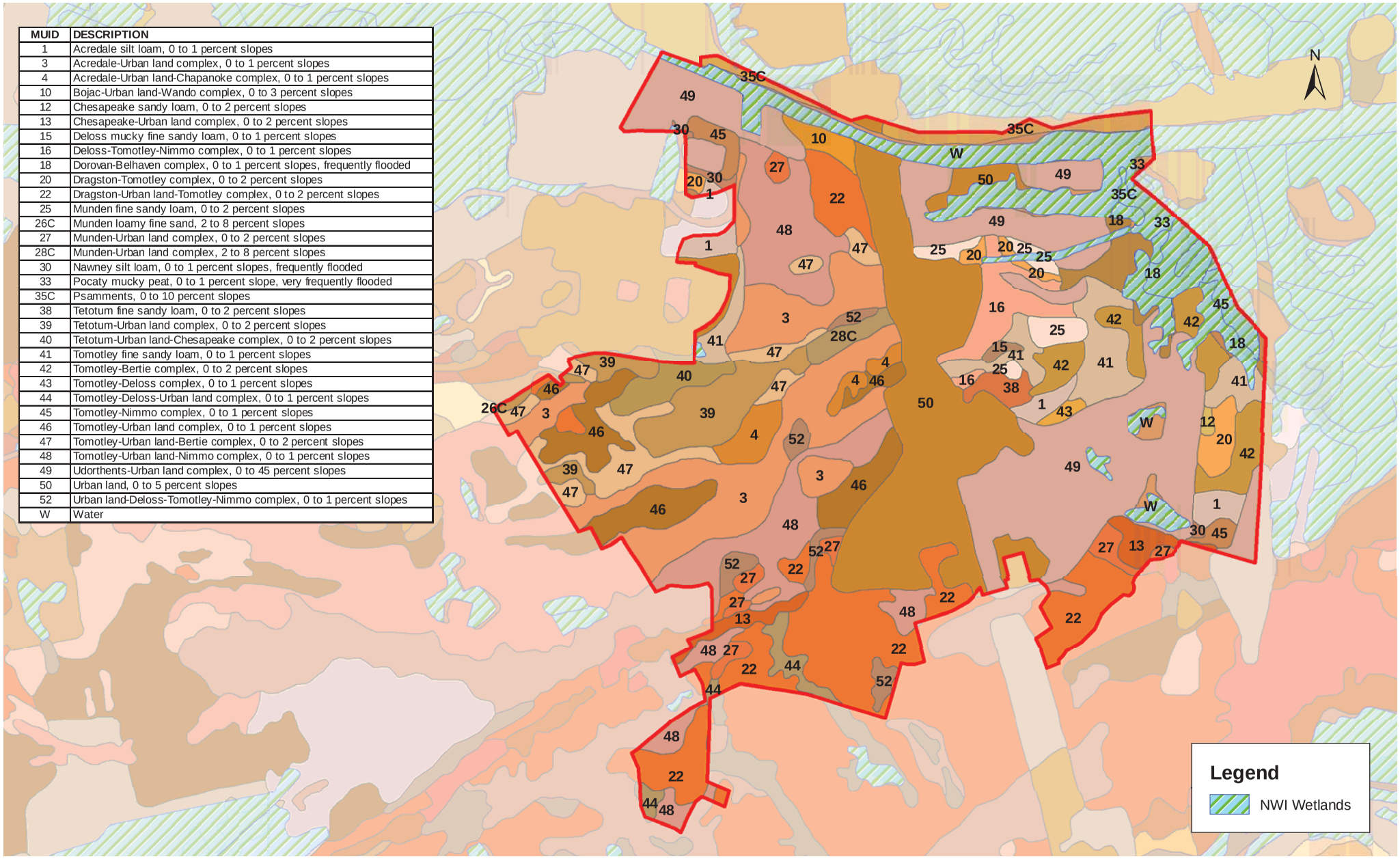


Aerial Imagery @ 2008 Commonwealth of Virginia.

See GIS for Complete Details

Figure 1. Horse Run Ditch East Watershed MDPU Map

MUID	DESCRIPTION
1	Acredale silt loam, 0 to 1 percent slopes
3	Acredale-Urban land complex, 0 to 1 percent slopes
4	Acredale-Urban land-Chapanoke complex, 0 to 1 percent slopes
10	Bojac-Urban land-Wando complex, 0 to 3 percent slopes
12	Chesapeake sandy loam, 0 to 2 percent slopes
13	Chesapeake-Urban land complex, 0 to 2 percent slopes
15	Deloss mucky fine sandy loam, 0 to 1 percent slopes
16	Deloss-Tomotley-Nimmo complex, 0 to 1 percent slopes
18	Dorovan-Belhaven complex, 0 to 1 percent slopes, frequently flooded
20	Dragston-Tomotley complex, 0 to 2 percent slopes
22	Dragston-Urban land-Tomotley complex, 0 to 2 percent slopes
25	Munden fine sandy loam, 0 to 2 percent slopes
26C	Munden loamy fine sand, 2 to 8 percent slopes
27	Munden-Urban land complex, 0 to 2 percent slopes
28C	Munden-Urban land complex, 2 to 8 percent slopes
30	Nawney silt loam, 0 to 1 percent slopes, frequently flooded
33	Pocaty mucky peat, 0 to 1 percent slope, very frequently flooded
35C	Psamments, 0 to 10 percent slopes
38	Tetotum fine sandy loam, 0 to 2 percent slopes
39	Tetotum-Urban land complex, 0 to 2 percent slopes
40	Tetotum-Urban land-Chesapeake complex, 0 to 2 percent slopes
41	Tomotley fine sandy loam, 0 to 1 percent slopes
42	Tomotley-Bertie complex, 0 to 2 percent slopes
43	Tomotley-Deloss complex, 0 to 1 percent slopes
44	Tomotley-Deloss-Urban land complex, 0 to 1 percent slopes
45	Tomotley-Nimmo complex, 0 to 1 percent slopes
46	Tomotley-Urban land complex, 0 to 1 percent slopes
47	Tomotley-Urban land-Bertie complex, 0 to 2 percent slopes
48	Tomotley-Urban land-Nimmo complex, 0 to 1 percent slopes
49	Udorthents-Urban land complex, 0 to 45 percent slopes
50	Urban land, 0 to 5 percent slopes
52	Urban land-Deloss-Tomotley-Nimmo complex, 0 to 1 percent slopes
W	Water

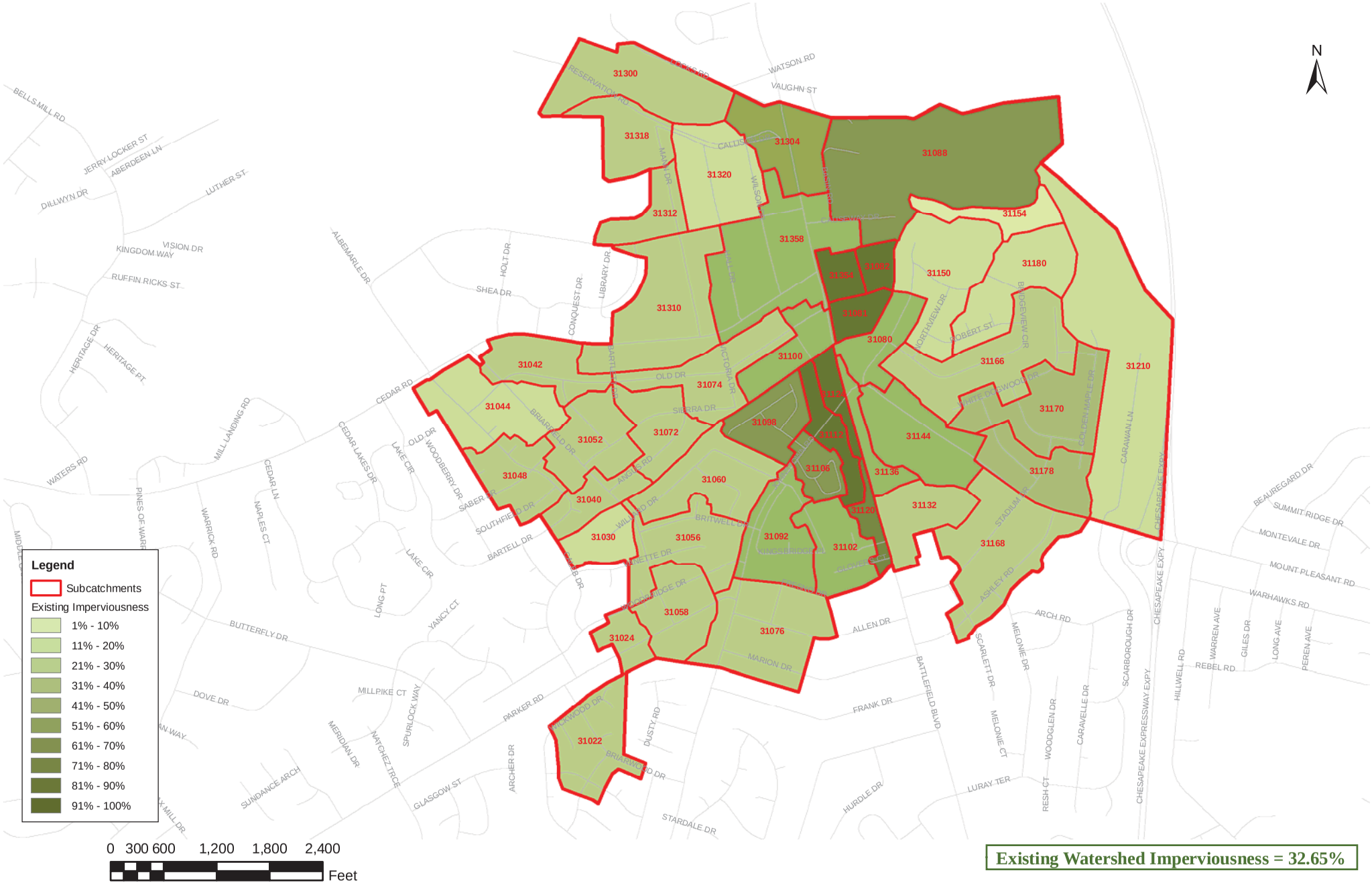


0 300 600 1,200 1,800 2,400

Feet

See GIS for Complete Details

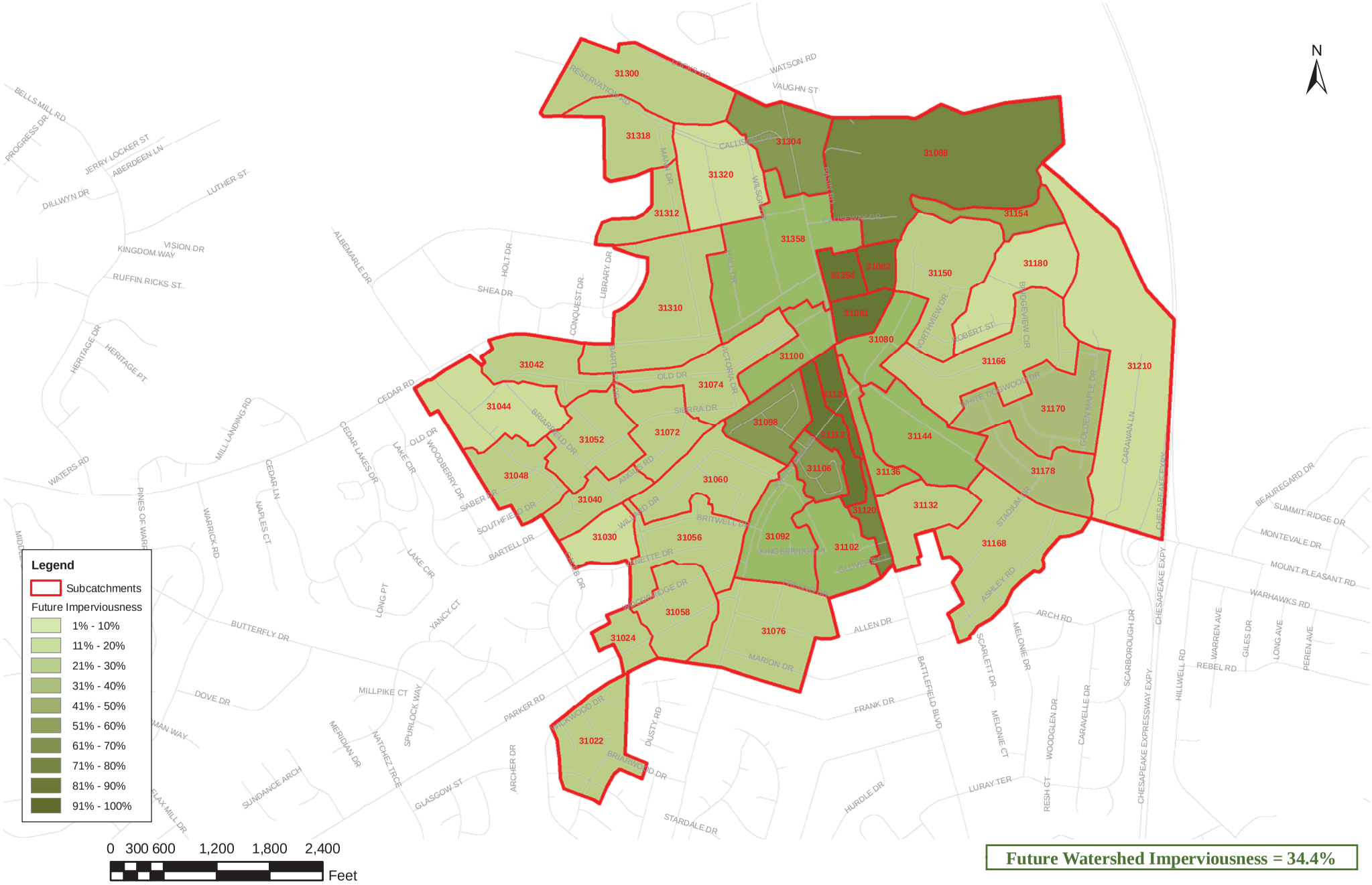
Figure 2. Soils with Wetlands Overlay



Existing Watershed Imperviousness = 32.65%

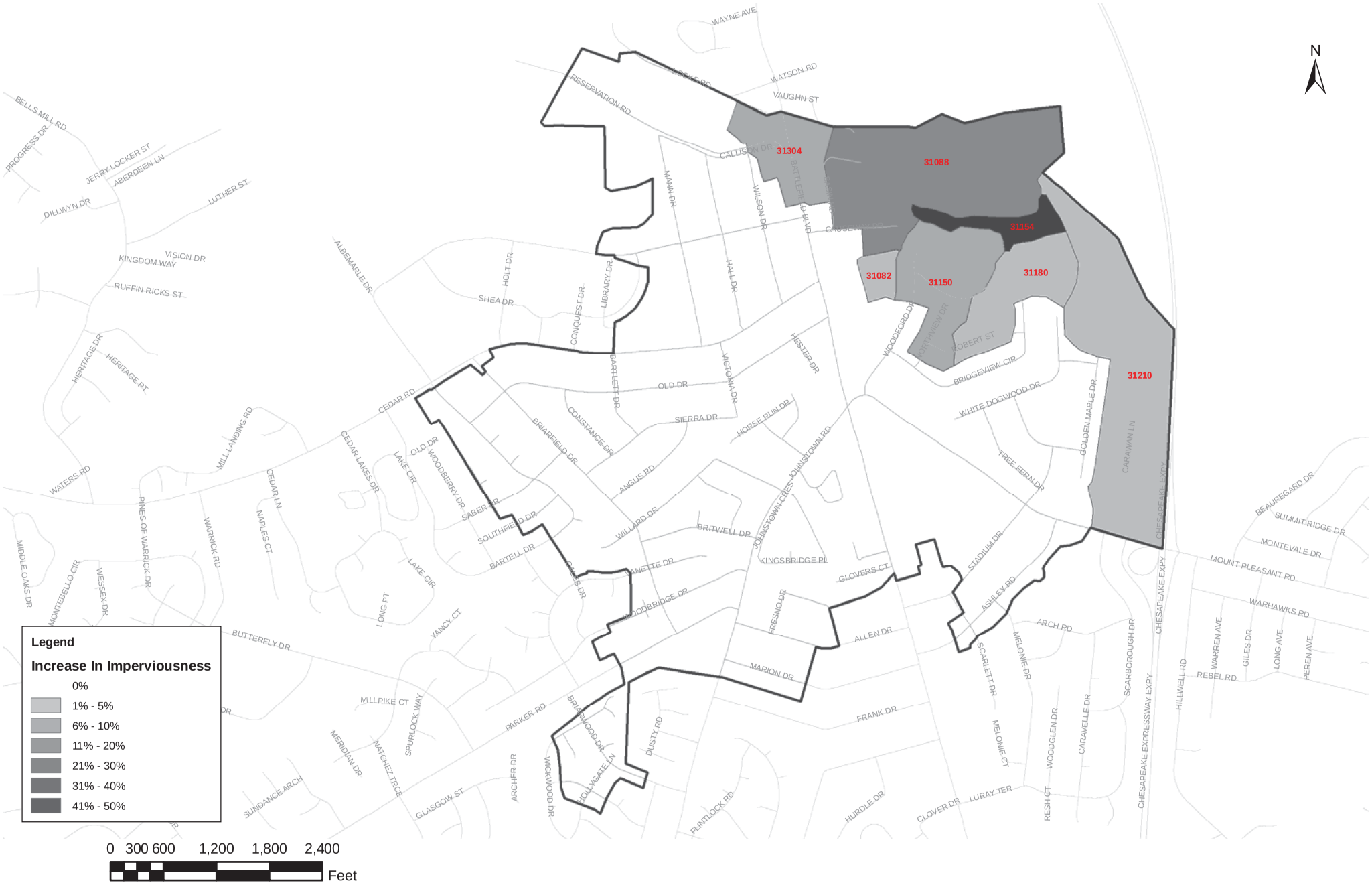
See GIS for Complete Details

Figure 3. Existing Conditions Subcatchments with Shaded Imperviousness



See GIS for Complete Details

Figure 4. Future Conditions Subcatchments with Shaded Imperviousness



See GIS for Complete Details

Figure 5. Subcatchments with Potential Increase In Imperviousness

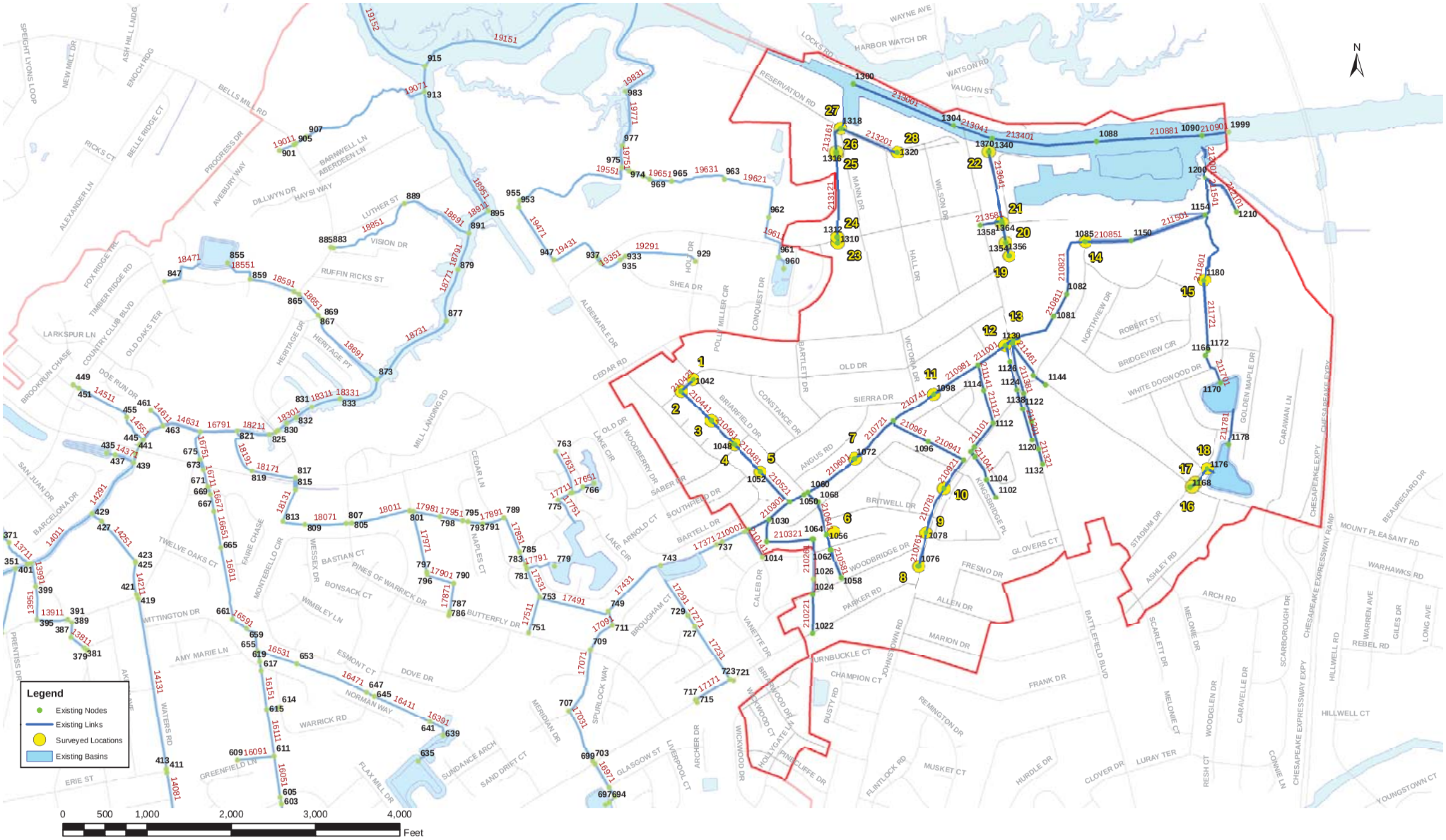


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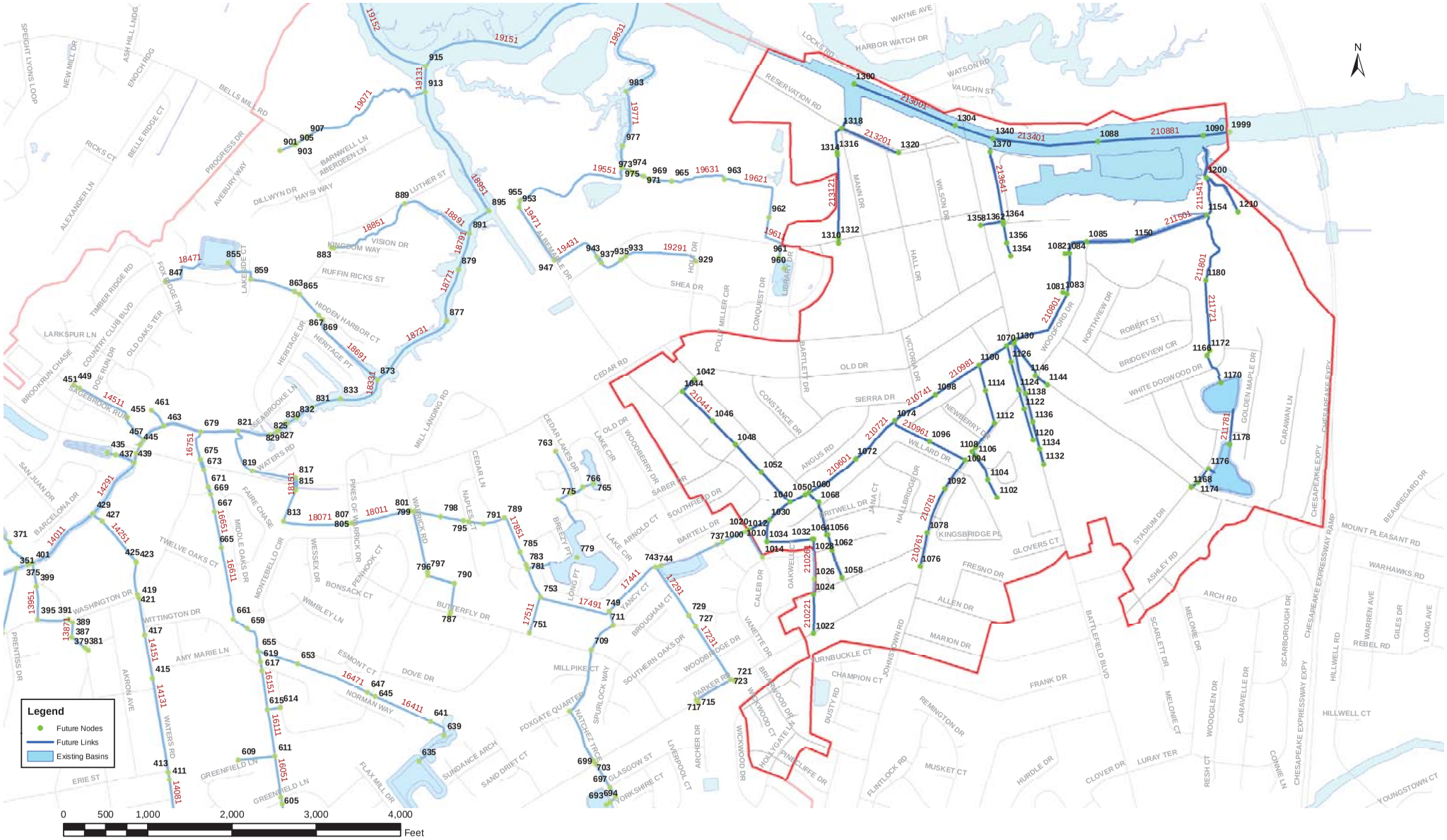
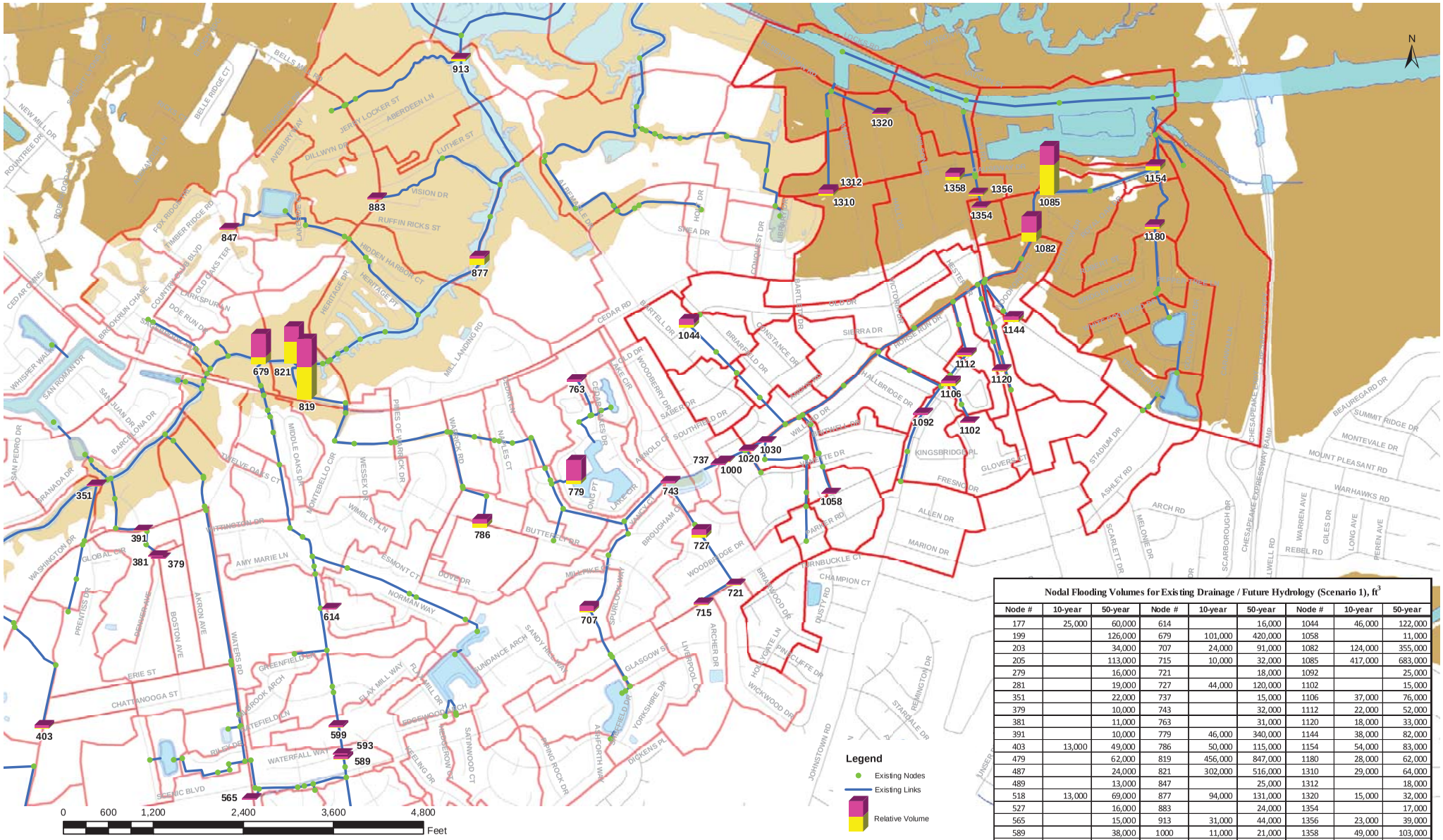
Figure 6. Link-Node Diagram - Existing Conditions and Surveyed Locations (Scenario 1)



See GIS for Complete Details

Figure 7. Link-Node Diagram - Future Conditions (Scenario 2)



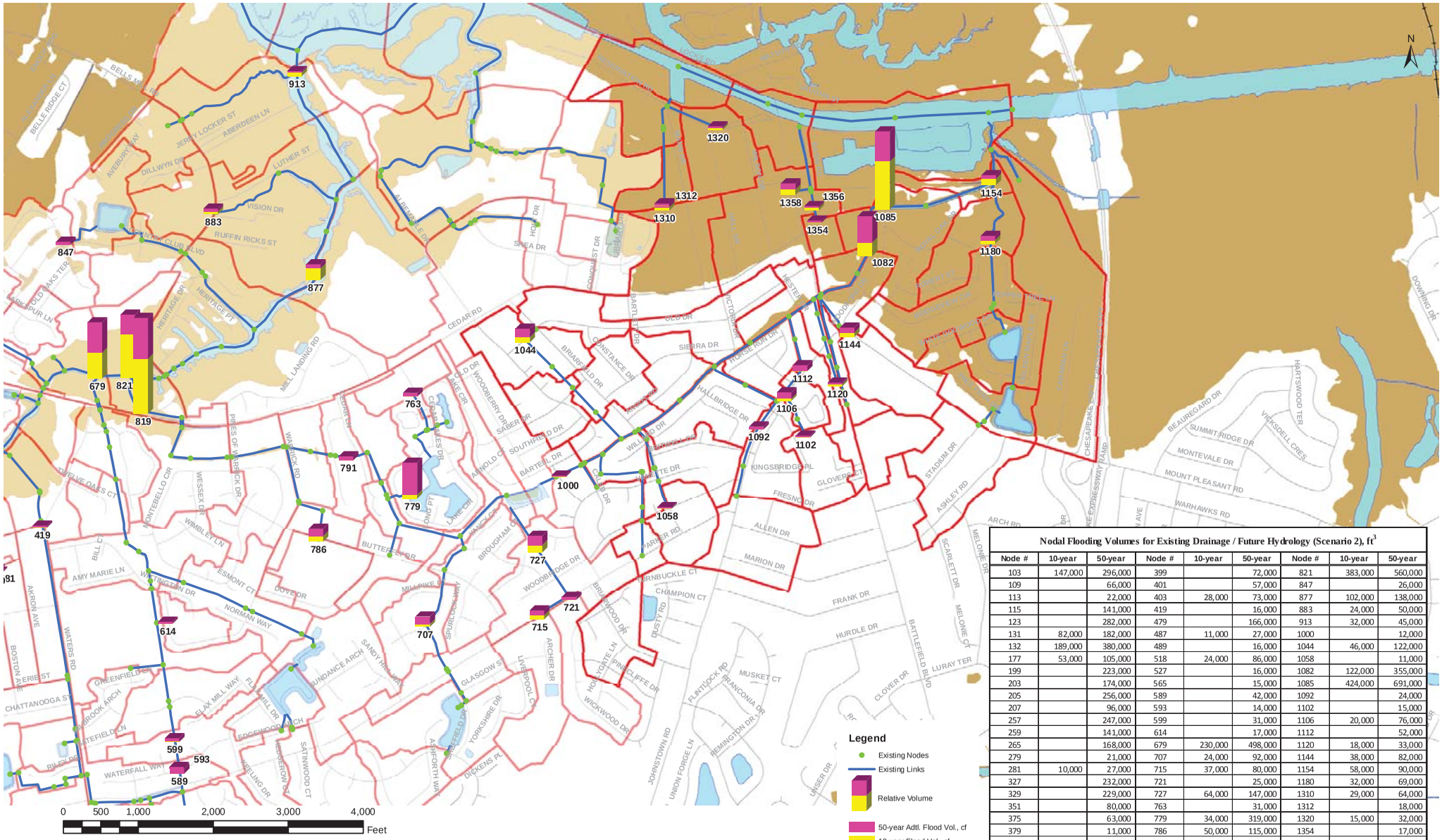
Nodal Flooding Volumes for Existing Drainage / Future Hydrology (Scenario 1), ft^3

Node #	10-year	50-year	Node #	10-year	50-year	Node #	10-year	50-year
177	25,000	60,000	614		16,000	1044	46,000	122,000
199		126,000	679	101,000	420,000	1058		11,000
203		34,000	707	24,000	91,000	1082	124,000	355,000
205		113,000	715	10,000	32,000	1085	417,000	683,000
279		16,000	721		18,000	1092		25,000
281		19,000	727	44,000	120,000	1102		15,000
351		22,000	737		15,000	1106	37,000	76,000
379		10,000	743		32,000	1112	22,000	52,000
381		11,000	763		31,000	1120	18,000	33,000
391		10,000	779	46,000	340,000	1144	38,000	82,000
403	13,000	49,000	786	50,000	115,000	1154	54,000	83,000
479		62,000	819	456,000	847,000	1180	28,000	62,000
487		24,000	821	302,000	516,000	1310	29,000	64,000
489		13,000	847		25,000	1312		18,000
518	13,000	69,000	877	94,000	131,000	1320	15,000	32,000
527		16,000	883		24,000	1354		17,000
565		15,000	913	31,000	44,000	1356	23,000	39,000
589		38,000	1000	11,000	21,000	1358	49,000	103,000
593		11,000	1020		18,000			
599		29,000	1030		10,000			

*Note: In order for greater detail to be shown in the Horse Run watershed, some portions of Bells Mill Creek watershed are not shown - however flooding for all nodes are reflected in the table above.

See GIS for Complete Details

Figure 8. Flooding for 10-Yr and 50-Yr Storms: Scenario 1



Nodal Flooding Volumes for Existing Drainage / Future Hydrology (Scenario 2), ft^3

Node #	10-year	50-year	Node #	10-year	50-year	Node #	10-year	50-year
103	147,000	296,000	399		72,000	821	383,000	560,000
109		66,000	401		57,000	847		26,000
113		22,000	403	28,000	73,000	877	102,000	138,000
115		141,000	419		16,000	883	24,000	50,000
123		282,000	479		166,000	913	32,000	45,000
131	82,000	182,000	487	11,000	27,000	1000		12,000
132	189,000	380,000	489		16,000	1044	46,000	122,000
177	53,000	105,000	518	24,000	86,000	1058		11,000
199		223,000	527		16,000	1082	122,000	355,000
203		174,000	565		15,000	1085	424,000	691,000
205		256,000	589		42,000	1092		24,000
207		96,000	593		14,000	1102		15,000
257		247,000	599		31,000	1106	20,000	76,000
259		141,000	614		17,000	1112		52,000
265		168,000	679	230,000	498,000	1120	18,000	33,000
279		21,000	707	24,000	92,000	1144	38,000	82,000
281	10,000	27,000	715	37,000	80,000	1154	58,000	90,000
327		232,000	721		25,000	1180	32,000	69,000
329		229,000	727	64,000	147,000	1310	29,000	64,000
351		80,000	763		31,000	1312		18,000
375		63,000	779	34,000	319,000	1320	15,000	32,000
379		11,000	786	50,000	115,000	1354		17,000
381		16,000	791		35,000	1356	24,000	39,000
391		21,000	819	487,000	849,000	1358	49,000	103,000

*Note: In order for greater detail to be shown in the Horse Run watershed, some portions of Bells Mill Creek watershed are not shown - however flooding for all nodes are reflected in the table above.

See GIS for Complete Details

Figure 9. Flooding for 10-Yr and 50-Yr Storms: (Scenario 2)