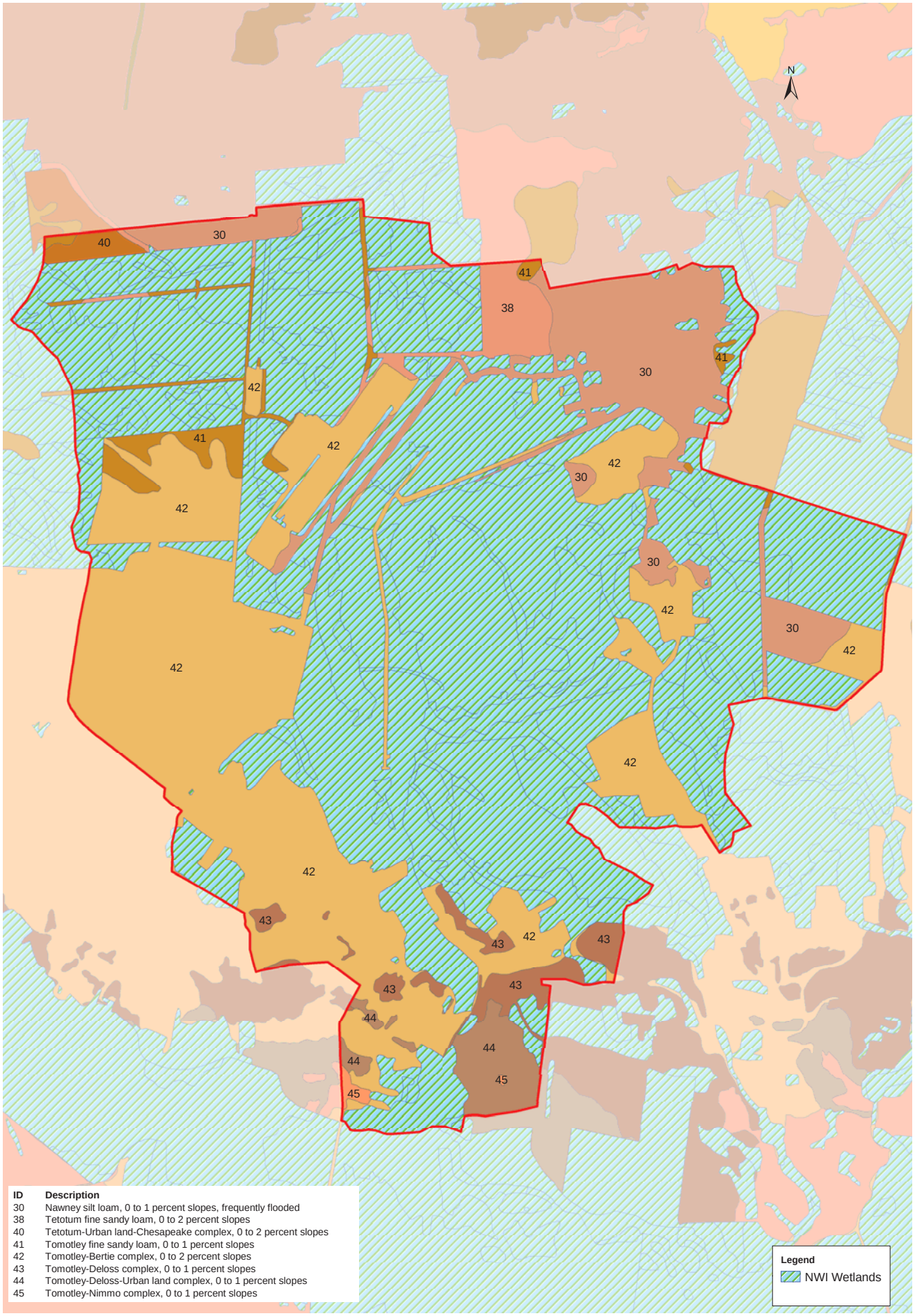
0 2,200 4,400 Feet

Aerial Imagery @ 2007 Commonwealth of Virginia.

See GIS for Complete Details

Figure 1. Southern Chesapeake 1 Watershed MDP Map



0 2,200 4,400 Feet

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Figure 2. Soils with Wetlands Overlay

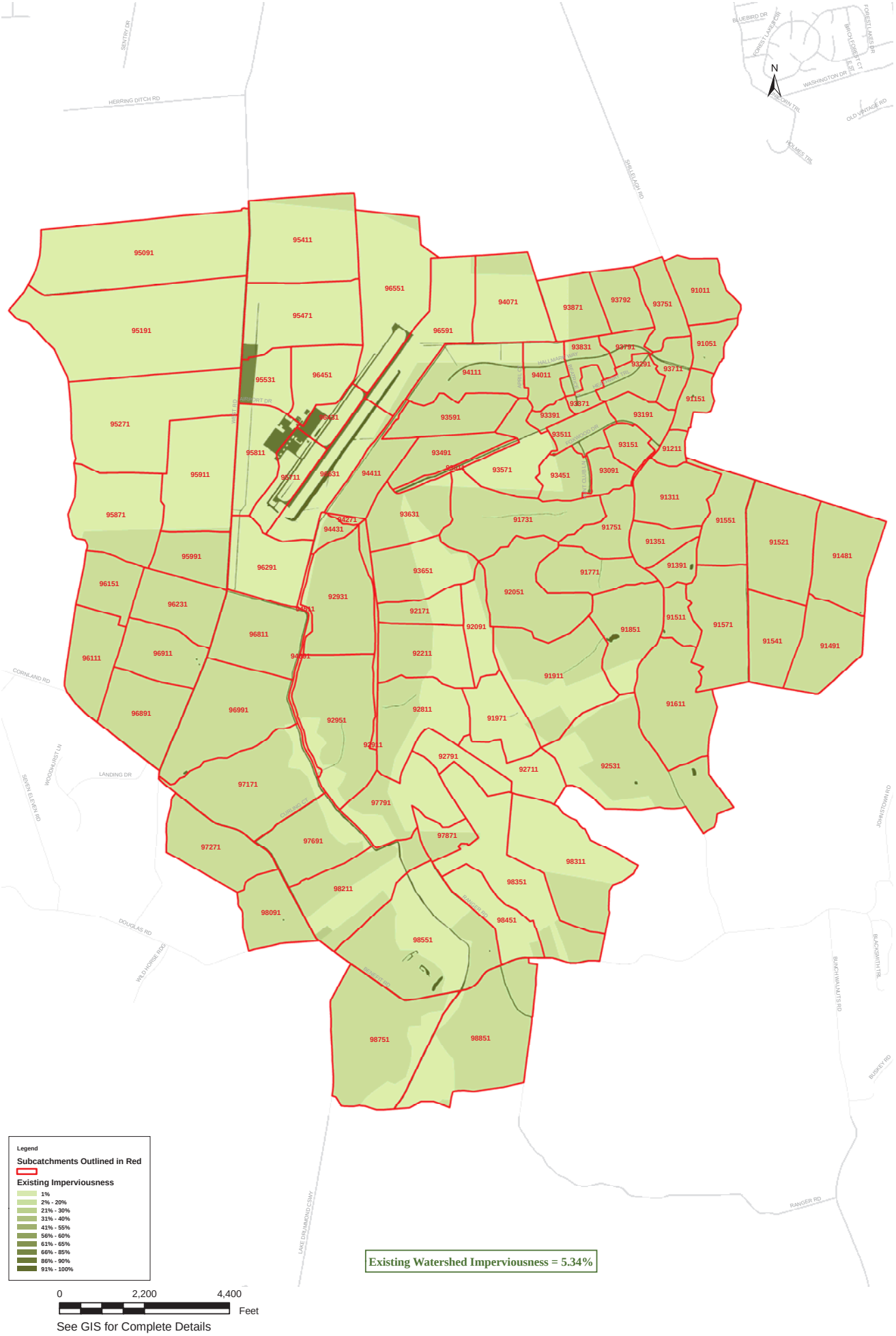

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Figure 3. Existing Conditions Subcatchments with Shaded Imperviousness

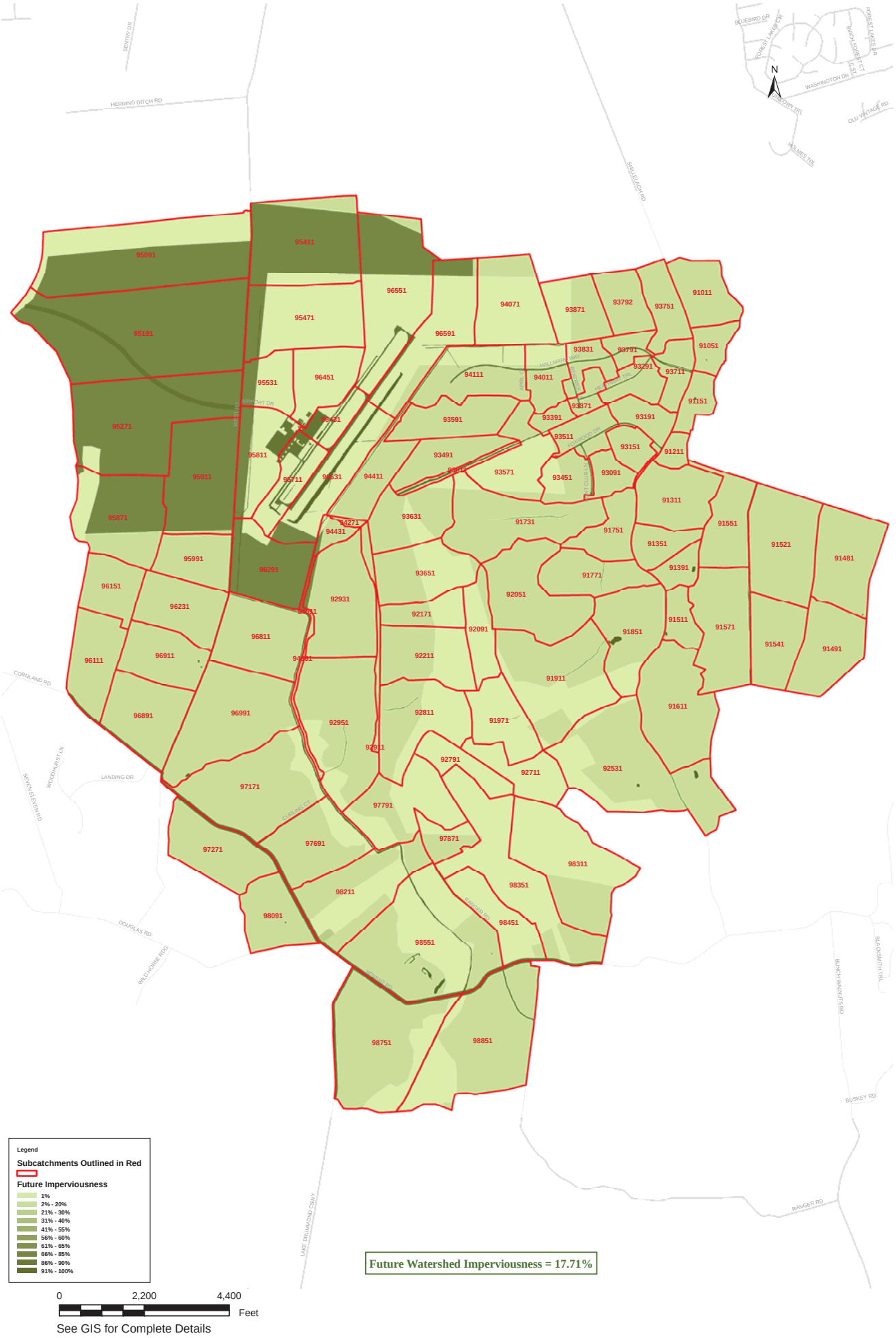

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Figure 4. Future Conditions Subcatchments with Shaded Imperviousness

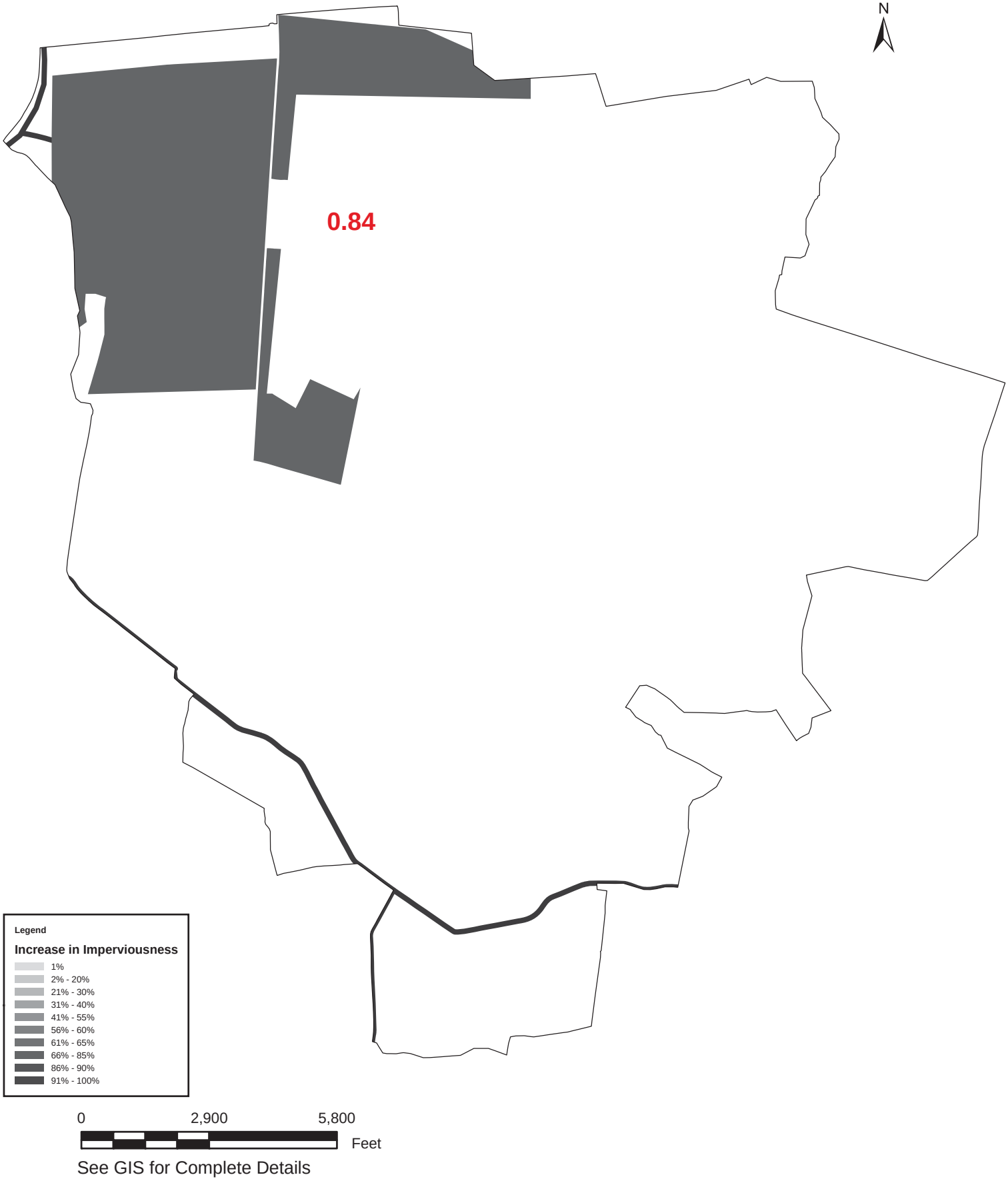

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Figure 5. Potential Increase In Imperviousness

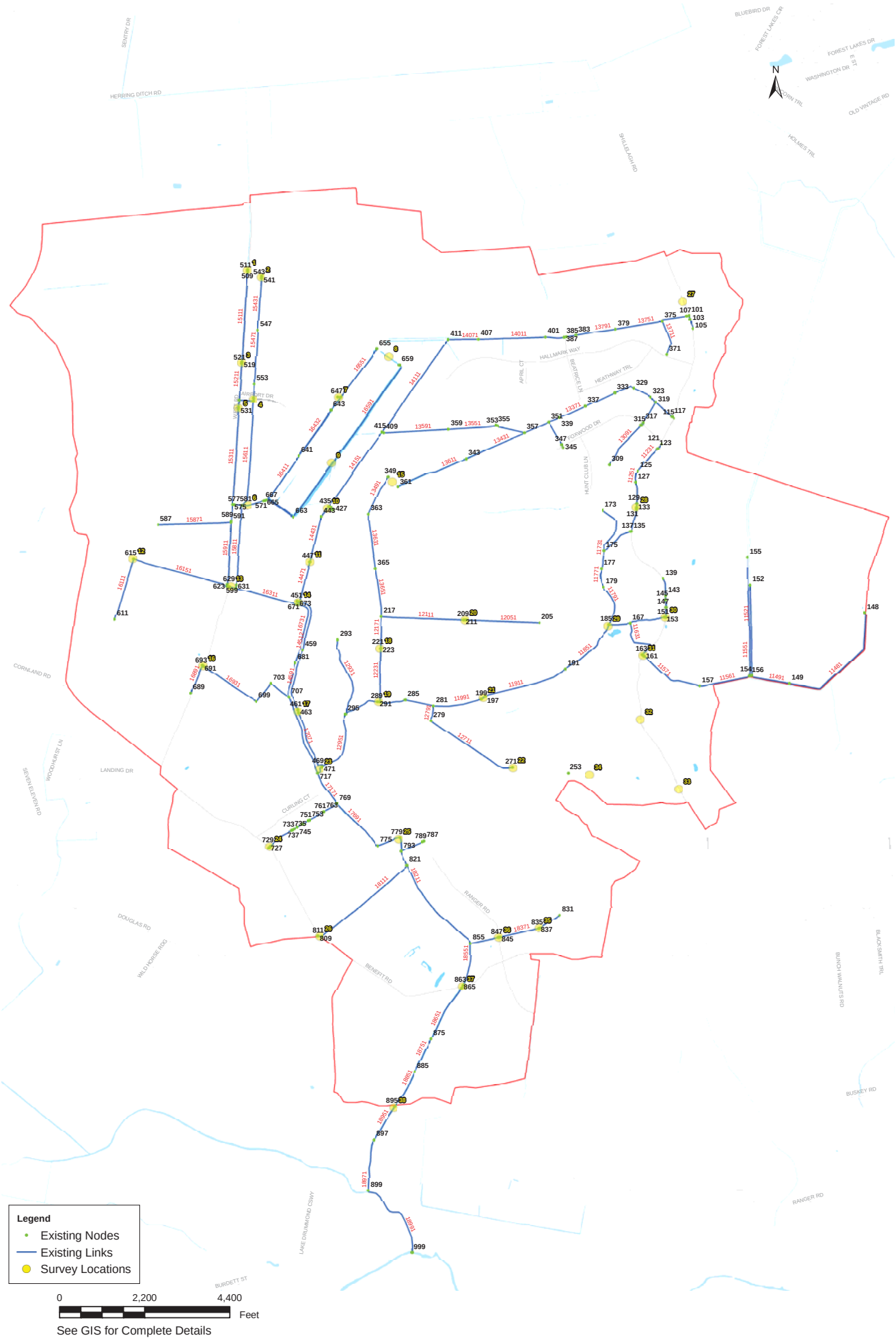

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Figure 6. Link-Node Diagram - Existing Conditions and Survey Locations

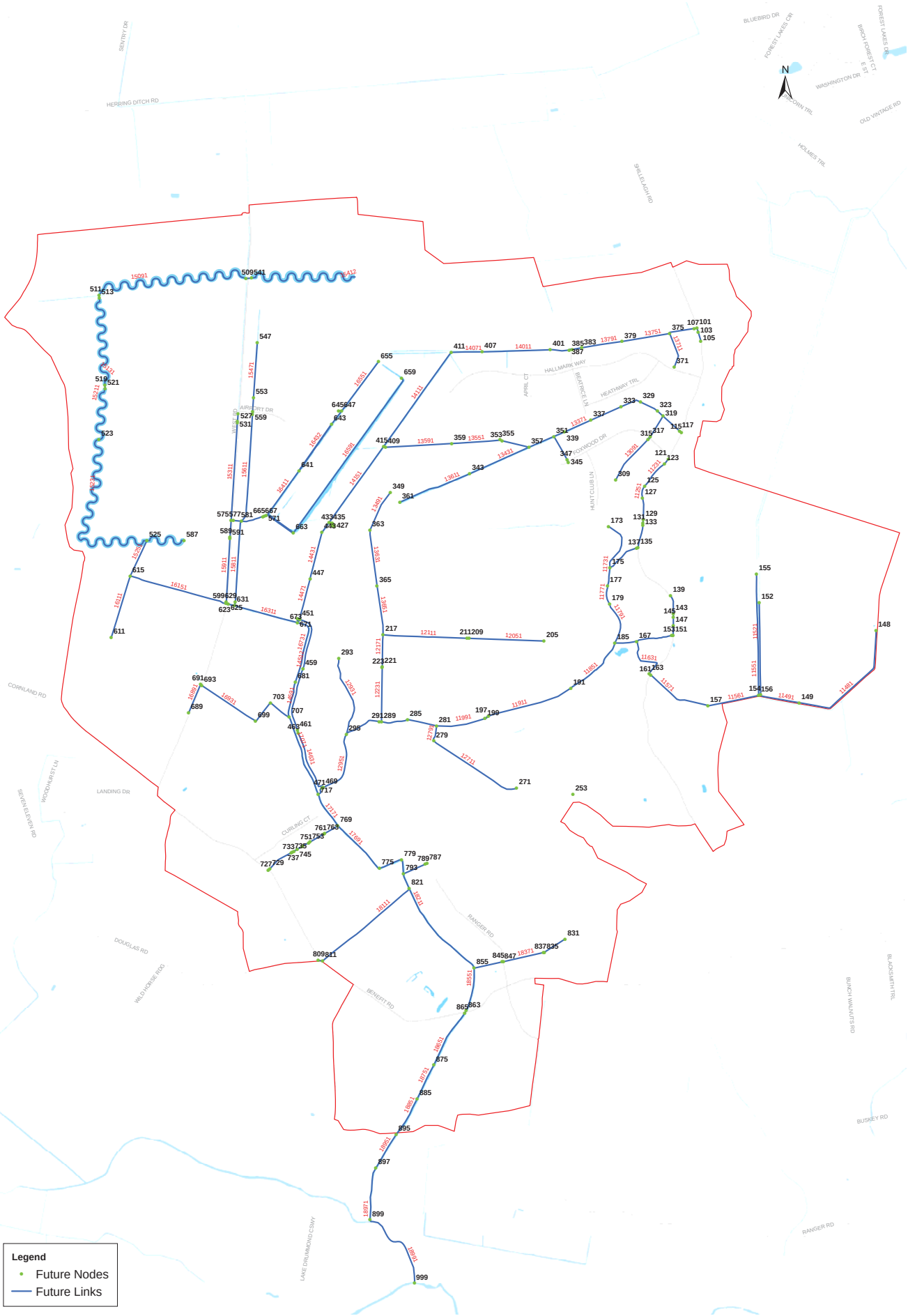

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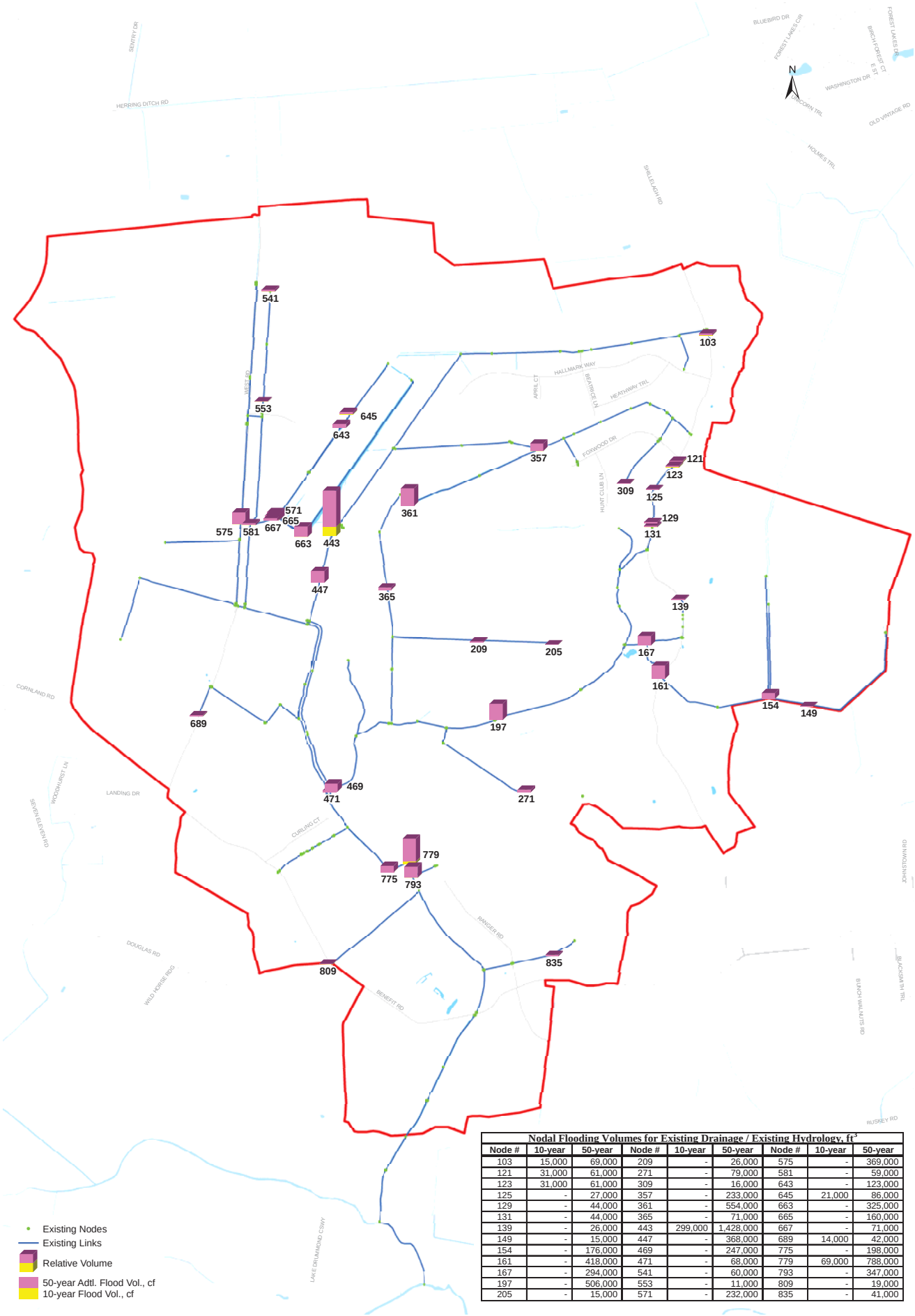
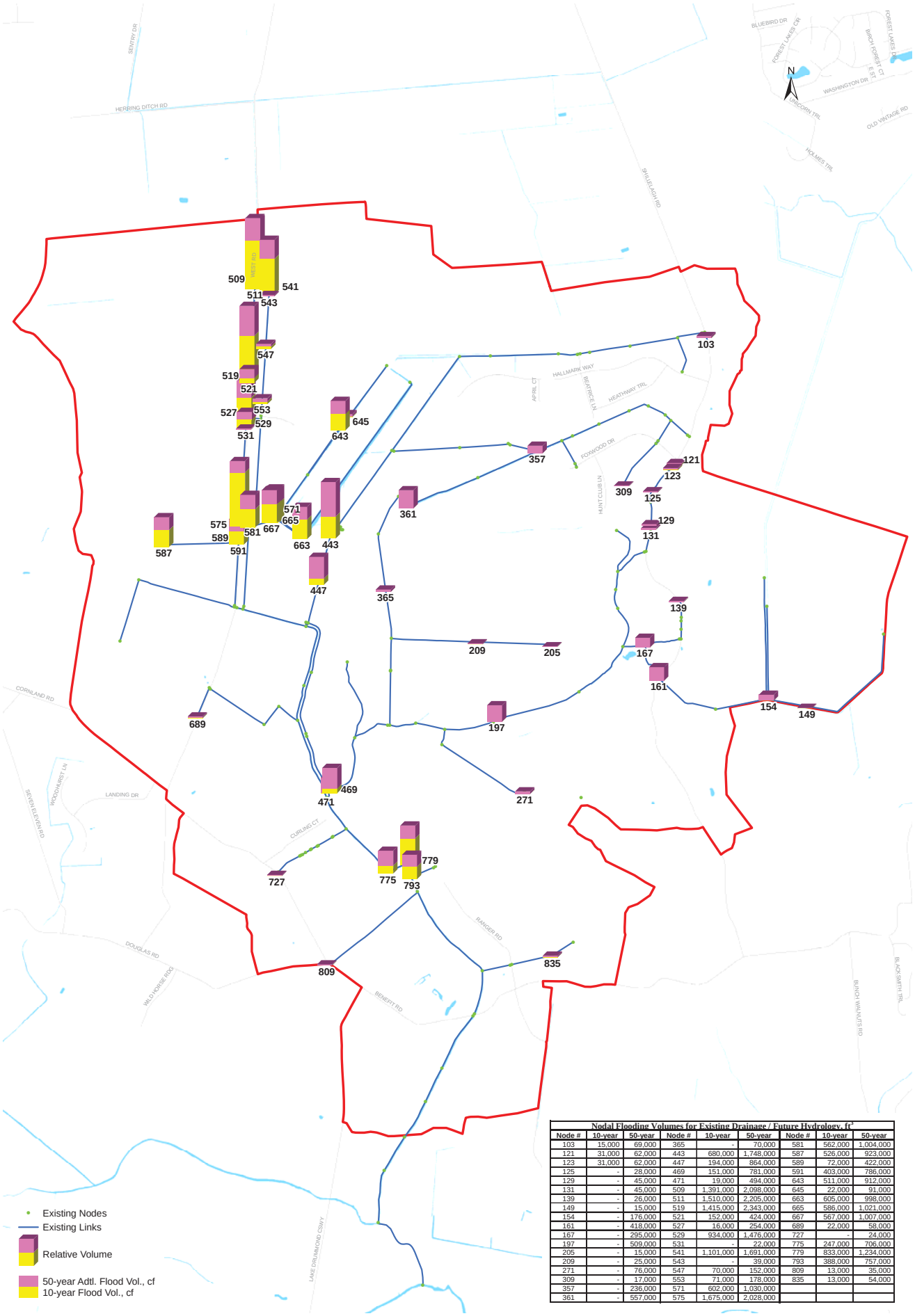
Figure 7. Link-Node Diagram - Future Conditions



Nodal Flooding Volumes for Existing Drainage / Existing Hydrology, ft³								
Node #	10-year	50-year	Node #	10-year	50-year	Node #	10-year	50-year
103	15,000	69,000	209	-	26,000	575	-	369,000
121	31,000	61,000	271	-	79,000	581	-	59,000
123	31,000	61,000	309	-	16,000	643	-	123,000
125	-	27,000	357	-	233,000	645	21,000	86,000
129	-	44,000	361	-	554,000	663	-	325,000
131	-	44,000	365	-	71,000	665	-	160,000
139	-	26,000	443	299,000	1,428,000	667	-	71,000
149	-	15,000	447	-	368,000	689	14,000	42,000
154	-	176,000	469	-	247,000	775	-	198,000
161	-	418,000	471	-	68,000	779	69,000	788,000
167	-	294,000	541	-	60,000	793	-	347,000
197	-	506,000	553	-	11,000	809	-	19,000
205	-	15,000	571	-	232,000	835	-	41,000

See GIS for Complete Details

Figure 8. Flooding for 10-Yr and 50-Yr Storms: Existing Hydrology, Existing Drainage (Scenario 1)

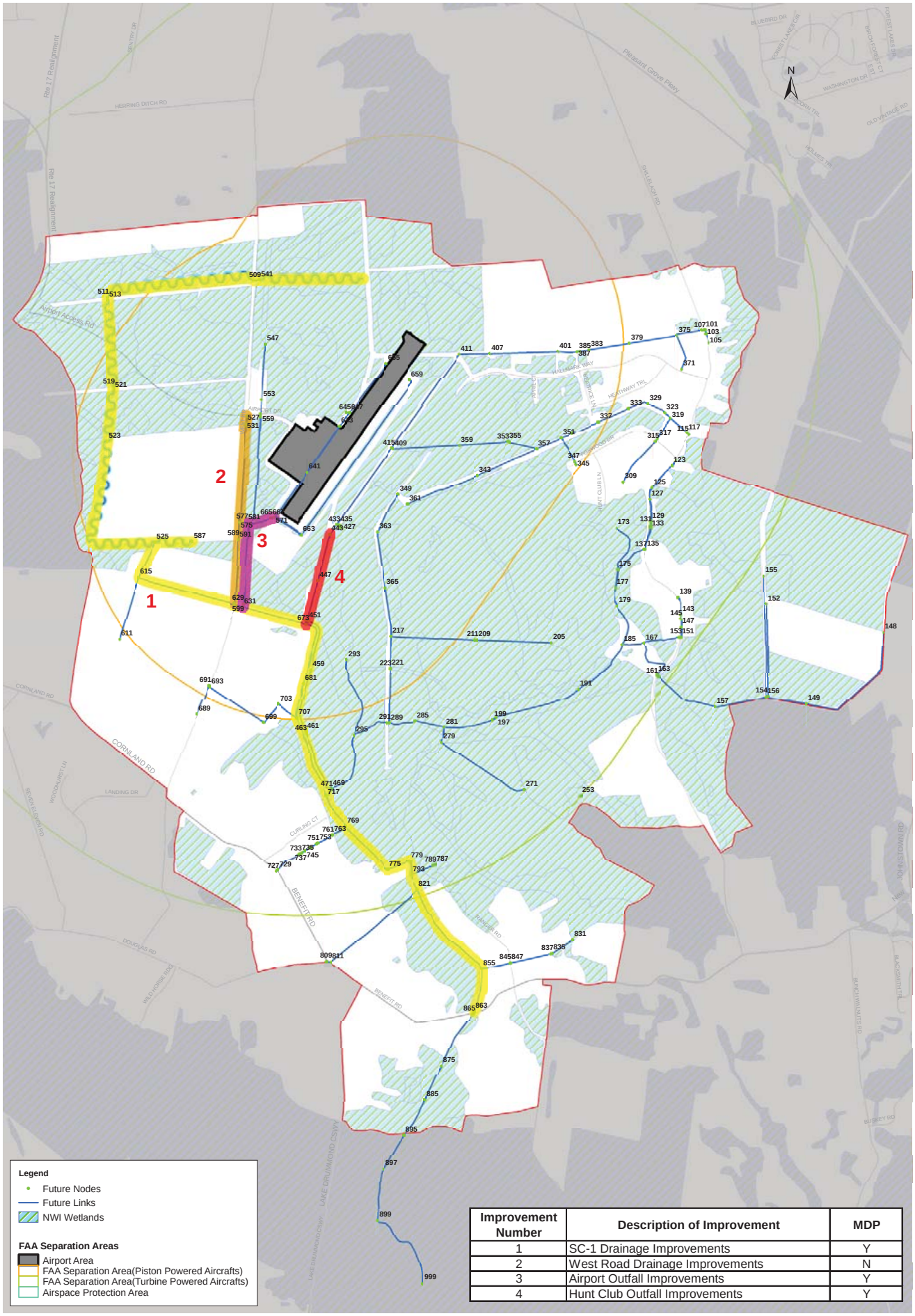


Nodal Flooding Volumes for Existing Drainage / Future Hydrology, ft³

Node #	10-year	50-year	Node #	10-year	50-year	Node #	10-year	50-year
103	15,000	69,000	365	-	70,000	581	562,000	1,004,000
121	31,000	62,000	443	680,000	1,748,000	587	526,000	923,000
123	31,000	62,000	447	194,000	864,000	589	72,000	422,000
125	-	28,000	469	151,000	781,000	591	403,000	786,000
129	-	45,000	471	19,000	494,000	643	511,000	912,000
131	-	45,000	509	1,391,000	2,098,000	645	22,000	91,000
139	-	26,000	511	1,510,000	2,205,000	663	605,000	998,000
149	-	15,000	519	1,415,000	2,343,000	665	586,000	1,021,000
154	-	176,000	521	152,000	424,000	667	567,000	1,007,000
161	-	418,000	527	16,000	254,000	689	22,000	58,000
167	-	295,000	529	934,000	1,476,000	727	-	24,000
197	-	509,000	531	-	22,000	775	247,000	706,000
205	-	15,000	541	1,101,000	1,691,000	779	833,000	1,234,000
209	-	25,000	543	-	39,000	793	388,000	757,000
271	-	76,000	547	70,000	152,000	809	13,000	35,000
309	-	17,000	553	71,000	178,000	835	13,000	54,000
357	-	236,000	571	602,000	1,030,000			
361	-	557,000	575	1,675,000	2,028,000			

See GIS for Complete Details

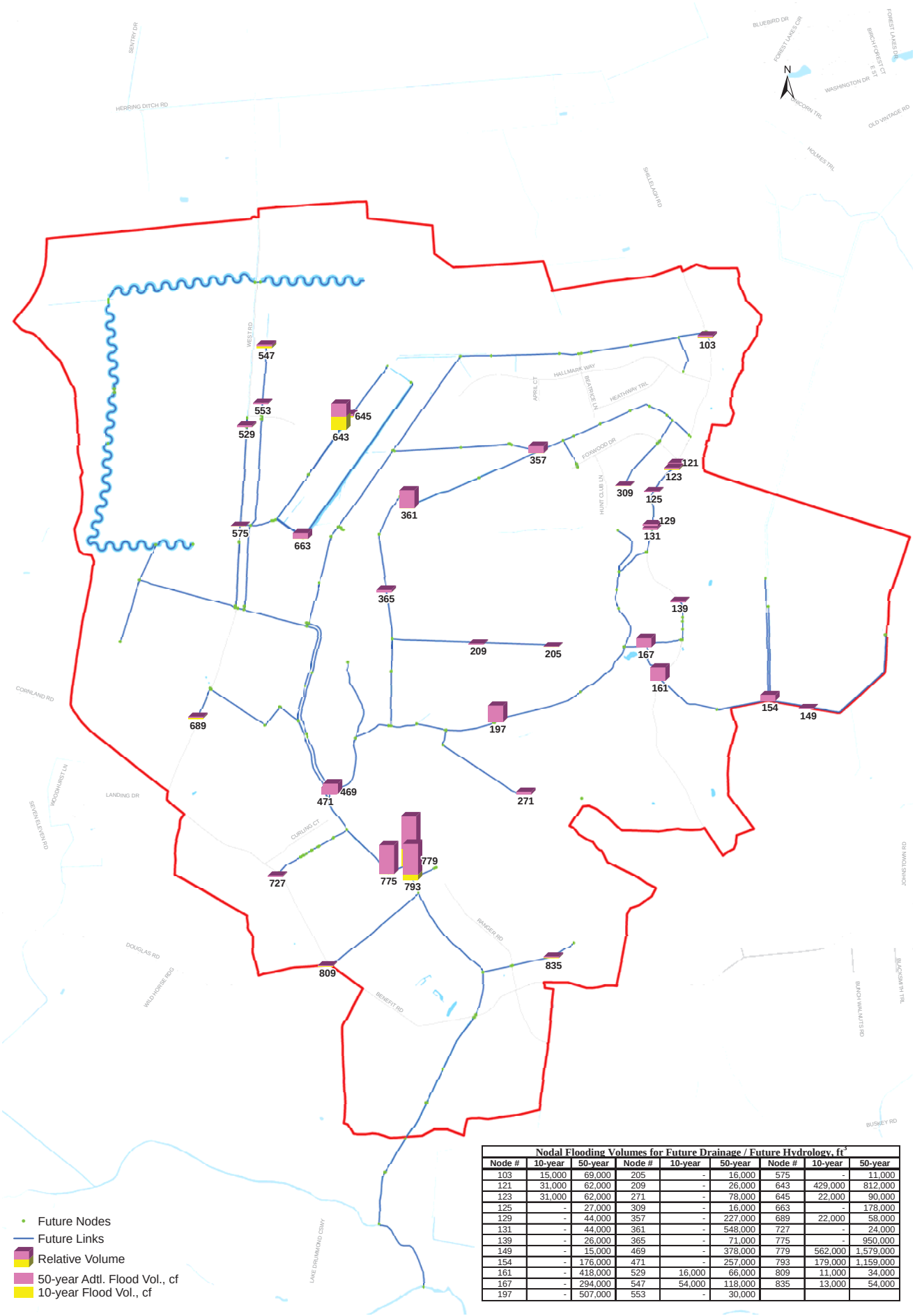
Figure 9. Flooding for 10-Yr and 50-Yr Storms: Future Hydrology, Existing Drainage (Scenario 2)



Improvement Number	Description of Improvement	MDP
1	SC-1 Drainage Improvements	Y
2	West Road Drainage Improvements	N
3	Airport Outfall Improvements	Y
4	Hunt Club Outfall Improvements	Y

See GIS for Complete Details

Figure 10. Future Improvements with Wetlands Underlay and FAA Separation Areas



Nodal Flooding Volumes for Future Drainage / Future Hydrology, ft^3								
Node #	10-year	50-year	Node #	10-year	50-year	Node #	10-year	50-year
103	15,000	69,000	205	-	16,000	575	-	11,000
121	31,000	62,000	209	-	26,000	643	429,000	812,000
123	31,000	62,000	271	-	78,000	645	22,000	90,000
125	-	27,000	309	-	16,000	663	-	178,000
129	-	44,000	357	-	227,000	689	22,000	58,000
131	-	44,000	361	-	548,000	727	-	24,000
139	-	26,000	365	-	71,000	775	-	950,000
149	-	15,000	469	-	378,000	779	562,000	1,579,000
154	-	176,000	471	-	257,000	793	179,000	1,159,000
161	-	418,000	529	16,000	66,000	809	11,000	34,000
167	-	294,000	547	54,000	118,000	835	13,000	54,000
197	-	507,000	553	-	30,000			

See GIS for Complete Details

Figure 11. Flooding for 10-Yr and 50-Yr Storms: Future Hydrology, Future Drainage (Scenario 3)