3.2.5 Cameron Run Group Summary

3.2.5.1 Cameron Run Watershed

Description. Cameron Run Watershed is a large watershed, with approximately 49 miles of stream assessed. The main stem drains through the City of Alexandria prior to re-entering Fairfax County and draining into the Potomac River.

Habitat. The habitat assessment results for Cameron Run Watershed are summarized by stream in Table 3-25. Habitat scores for each reach are depicted in Figure 3-31. Based on a length weighted habitat score of 92 (Table 3-2), Cameron Run Watershed is one of the poorest watersheds, compared to the rest of the County. Approximately 2 miles of stream were categorized as having "very poor" habitat conditions, 19 miles as "poor," 23 miles as "fair," and 4 miles as "good."

CEM. Based on the CEM evaluations approximately three quarters of the channels assessed in Cameron Run Watershed are in Evolutionary Stage 3 (Table 3-3), with most of the remainder of the watershed in Stage 4. Figure 3-32 summarizes the CEM results for Cameron Run Watershed.

Infrastructure. The infrastructure inventory resulted in 1015 inventory points. The most significant problems were related to a utility line, which was given an impact score of 15, and several pipes, ditches, erosional areas that were given impact scores of 10. The infrastructure inventory results are summarized in Table 3-26. Figures 3-33, 3-34, 3-35, 3-36, and 3-37 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

3.2.5.2 Four Mile Run Watershed

Description. Four Mile Run Watershed is a large watershed with very little stream channel in the County, with approximately 1 miles of stream assessed. The majority of the watershed is contained within the City of Alexandria and Arlington County. Four Mile Run eventually drains to the Potomac River.

Habitat. The habitat assessment results for Four Mile Run Watershed are summarized by stream in Table 3-27. Habitat scores for each reach are depicted in Figure 3-31. Based on a length weighted habitat score of 96 (Table 3-2), Four Mile Run Watershed is in the lower range of quality, compared to the rest of the County. Nearly the entire mile assessed was categorized as "fair."

CEM. Based on the CEM evaluations approximately 60 percent of the channels assessed in Four Mile Run Watershed are in Evolutionary Stage 4 (Table 3-3), with most of the remainder of the watershed in Stage 3. Figure 3-32 summarizes the CEM results for Four Mile Run Watershed.

Infrastructure. The infrastructure inventory resulted in 32 inventory points. The most significant problems were related to two utilities and a buffer, which was given impact scores of 6. The infrastructure inventory results are summarized in Table 3-28. Figures 3-33, 3-34, 3-35, 3-36, and 3-37 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

TABLE 3-25
Habitat Assessment Summary for Cameron Run Watershed
Fairfax County Stream Physical Assessment

Stream	Linear Feet (Percent) of Stream					
	Very Poor	**Poor**	**Fair**	**Good**	**Excellent**	**Total**
Backlick Run	3,359 (6.48)	19,609 (37.81)	28,893 (55.71)	0 (0.00)	0 (0.00)	51,861
Cameron Run	5,246 (32.86)	6,036 (37.82)	4,680 (29.32)	0 (0.00)	0 (0.00)	15,962
Holmes Run	296 (0.37)	30,373 (37.44)	34,736 (42.81)	13,800 (17.01)	1,927 (2.37)	81,133
Indian Run	0 (0.00)	1,882 (10.34)	16,321 (89.66)	0 (0.00)	0 (0.00)	18,202
Pike Branch	0 (0.00)	11,344 (65.71)	5,920 (34.29)	0 (0.00)	0 (0.00)	17,264
Poplar Branch	0 (0.00)	1,554 (77.27)	457 (22.73)	0 (0.00)	0 (0.00)	2,011
Poplar Branch Trib to Indian Run	0 (0.00)	1,428 (24.41)	4,422 (75.59)	0 (0.00)	0 (0.00)	5,850
Tributary to Backlick Run	0 (0.00)	0 (0.00)	1,696 (41.02)	2,439 (58.98)	0 (0.00)	4,135
Tributary to Cameron Run	0 (0.00)	0 (0.00)	976 (100.00)	0 (0.00)	0 (0.00)	976
Tributary to Holmes Run	0 (0.00)	814 (100.00)	0 (0.00)	0 (0.00)	0 (0.00)	814
Tributary to Indian Run	0 (0.00)	1,314 (100.00)	0 (0.00)	0 (0.00)	0 (0.00)	1,314
Tributary to Tripps Run	0 (0.00)	10,992 (100.00)	0 (0.00)	0 (0.00)	0 (0.00)	10,992
Tripps Run	0 (0.00)	6,605 (57.75)	3,371 (29.47)	1,462 (12.78)	0 (0.00)	11,438
Turkeycock Creek	0 (0.00)	5,891 (34.81)	11,032 (65.19)	0 (0.00)	0 (0.00)	16,923
Turkeycock Run	0 (0.00)	4,306 (23.43)	9,525 (51.83)	4,546 (24.74)	0 (0.00)	18,377
Watershed Total	**8,901 (3.46)**	**102,149 (39.71)**	**122,029 (47.44)**	**22,247 (8.65)**	**1,927 (0.75)**	**257,252**

TABLE 3-26
Infrastructure Assessment Summary for Cameron Run Watershed
Fairfax County Stream Physical Assessment

Impact Score	0	1	2	3	4	5	6	7	8	9	>10	Total
Deficient Buffers	4	2	18	23	28	107	38	38	11	3	0	272
Crossings	97	50	49	22	16	11	3	0	0	1	0	249
Ditches and Pipes	192	38	40	15	8	11	2	0	7	2	4	319
Erosion	0	1	0	2	4	18	14	28	8	3	3	81
Head Cut	0	0	0	1	2	1	0	0	0	0	1	5
Obstruction	3	1	7	10	13	6	8	5	4	2	1	60
Utility	2	0	0	8	3	3	6	3	0	2	2	29
Total	**298**	**92**	**114**	**81**	**74**	**157**	**71**	**74**	**30**	**13**	**11**	**1015**

TABLE 3-27
Habitat Assessment Summary for Four Mile Run Watershed
Fairfax County Stream Physical Assessment

Stream	Linear Feet (Percent) of Stream					
	Very Poor	Poor	Fair	Good	Excellent	Total
Four Mile Run	0 (0.00)	0 (0.00)	1,654 (100.00)	0 (0.00)	0 (0.00)	1,654
Long Branch	0 (0.00)	0 (0.00)	2,422 (100.00)	0 (0.00)	0 (0.00)	2,422
Watershed Total	**0 (0.00)**	**0 (0.00)**	**4,076 (100.00)**	**0 (0.00)**	**0 (0.00)**	**4,076**

TABLE 3-28
Infrastructure Assessment Summary for Four Mile Run Watershed
Fairfax County Stream Physical Assessment

Impact Score	0	1	2	3	4	5	6	7	8	9	10	>10	Total
Deficient Buffers	0	0	0	0	0	5	1	0	0	0	0	N/A	6
Crossings	0	7	0	1	0	0	0	0	0	0	0	N/A	8
Ditches and Pipes	14	0	0	0	0	0	0	0	0	0	0	N/A	14
Erosion	0	0	0	0	0	0	0	0	0	0	0	N/A	0
Head Cut	0	0	0	0	0	0	0	0	0	0	0	N/A	0
Obstruction	0	0	0	0	0	0	0	0	0	0	0	N/A	0
Utility	0	0	0	0	0	2	2	0	0	0	0	0	4
Total	**14**	**7**	**0**	**1**	**0**	**7**	**3**	**0**	**0**	**0**	**0**	**0**	**32**

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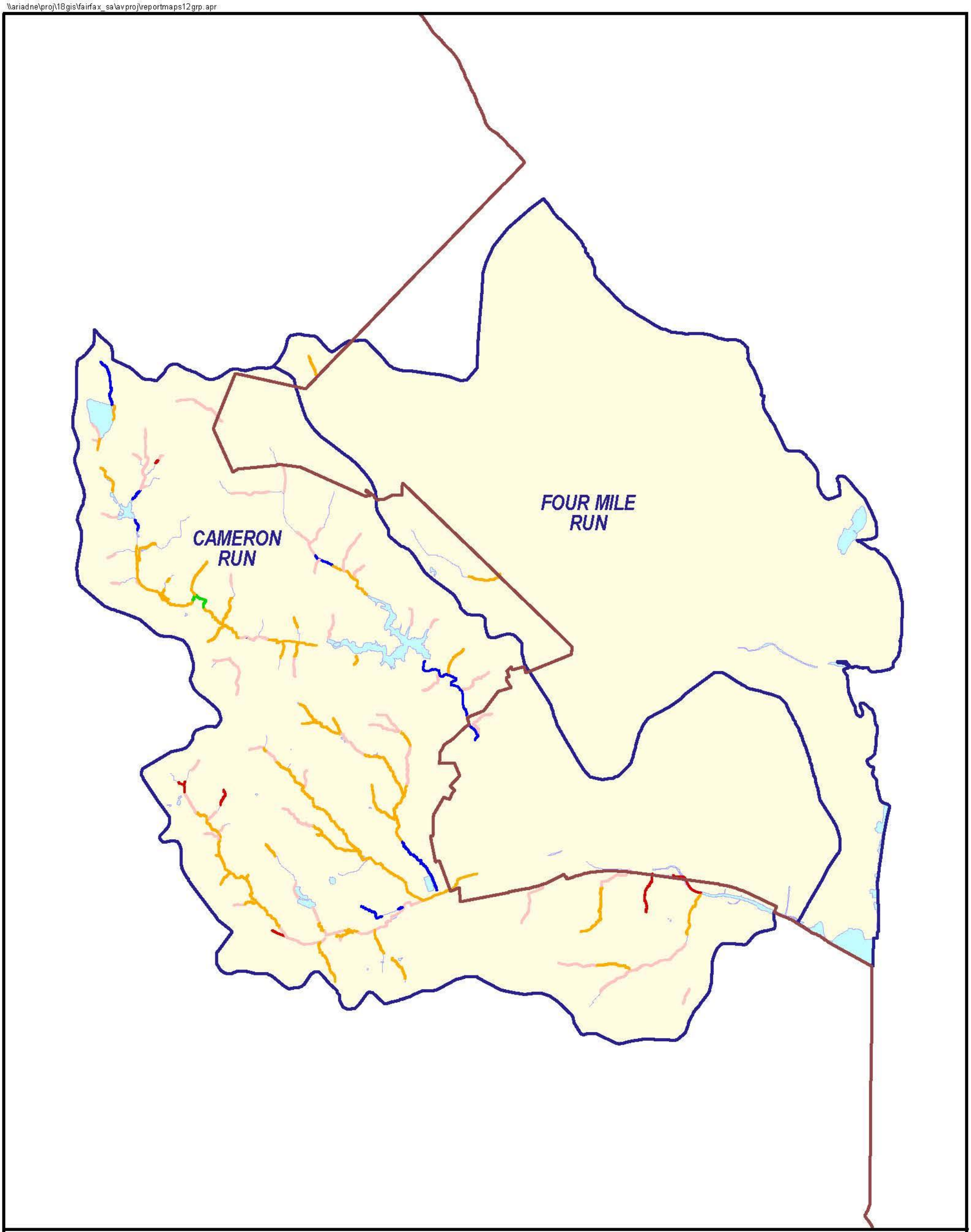

Fairfax County Boundary

Habitat Rating

- Excellent
- Good
- Fair
- Poor
- Very Poor
- No Habitat Assessment
- Lakes and Ponds
- Watersheds

N

WATERSHED GROUP: CAMERON RUN

0 3000 6000 9000 12000 Feet

Figure 3-31
Habitat Assessment
Cameron Run Group
Fairfax County Stream Physical Assessment

CH2MHILL

Inventory Types
- Cross Section
- Head Cut

CEM Stage
- Not Assigned
- 1
- 2
- 3
- 4
- 5
- Fairfax County Boundary
- Lakes and Ponds
- Streams
- Watersheds

N

0 3000 6000 9000 12000 Feet

WATERSHED GROUP:
CAMERON RUN

Figure 3-32
CEM Stages
Cameron Run Group
Fairfax County Stream Physical Assessment

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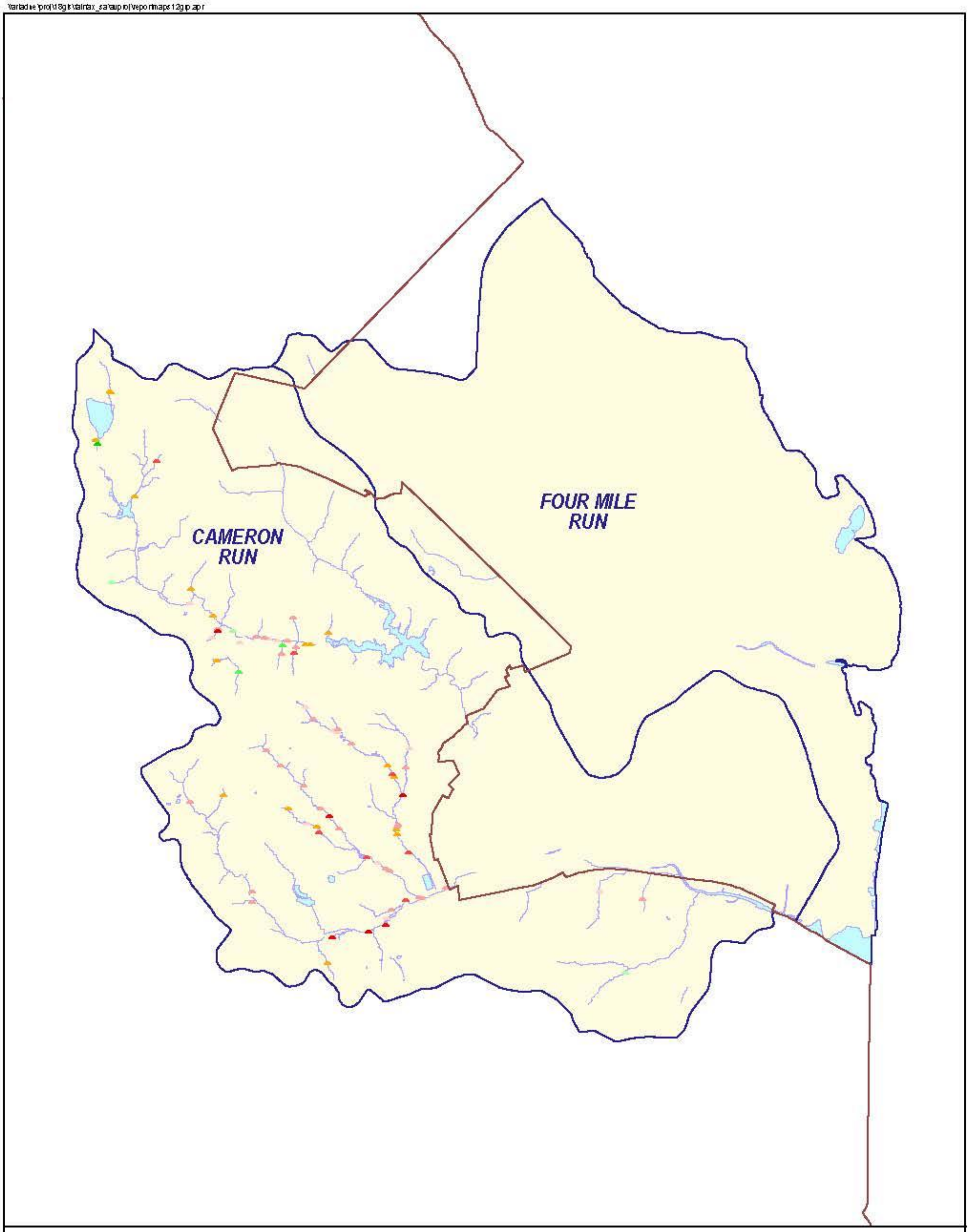

Figure 3-33
Erosion Impacts
Cameron Run Group
Fairfax County Stream Physical Assessment

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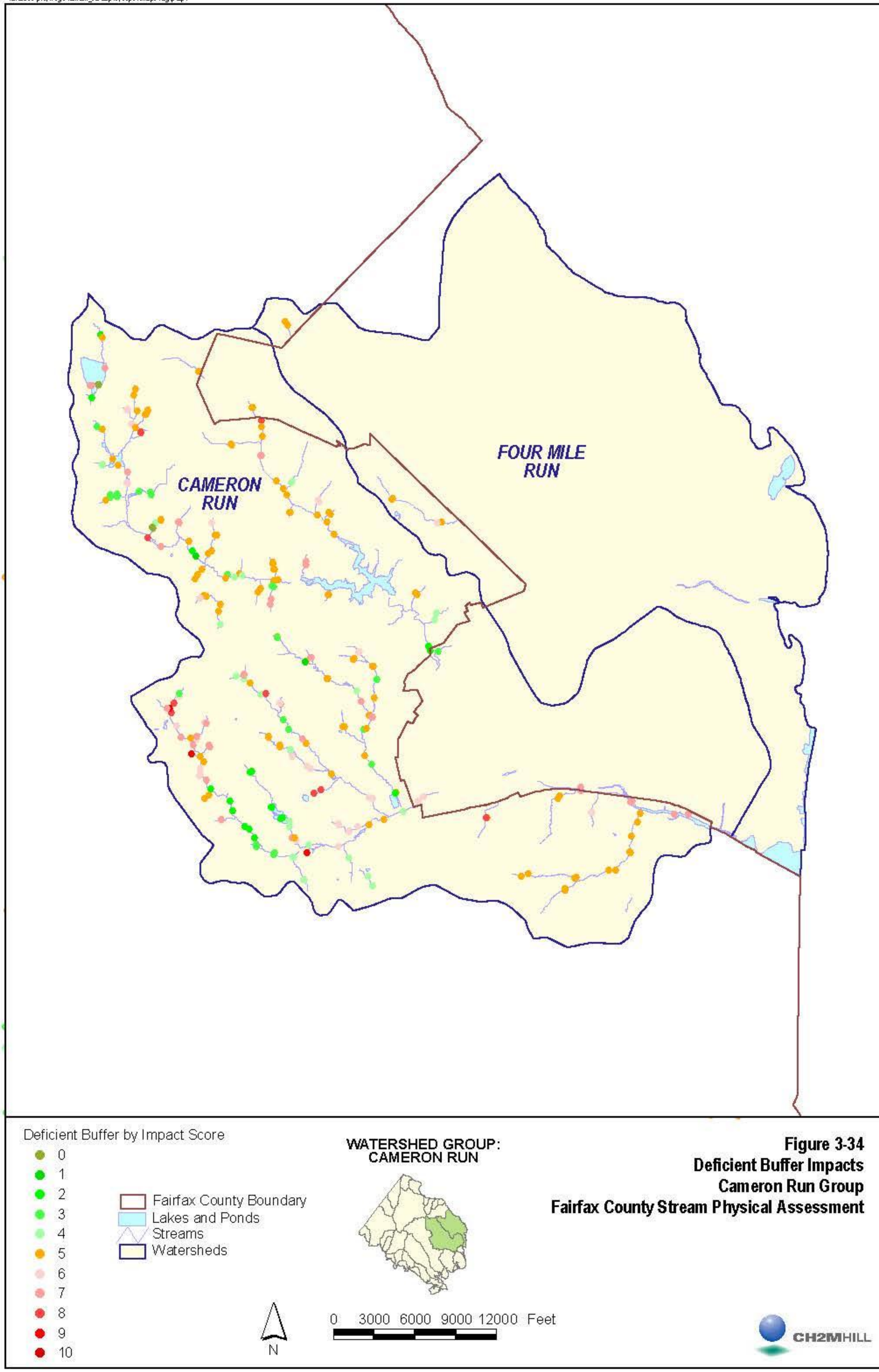

Figure 3-34
Deficient Buffer Impacts
Cameron Run Group
Fairfax County Stream Physical Assessment

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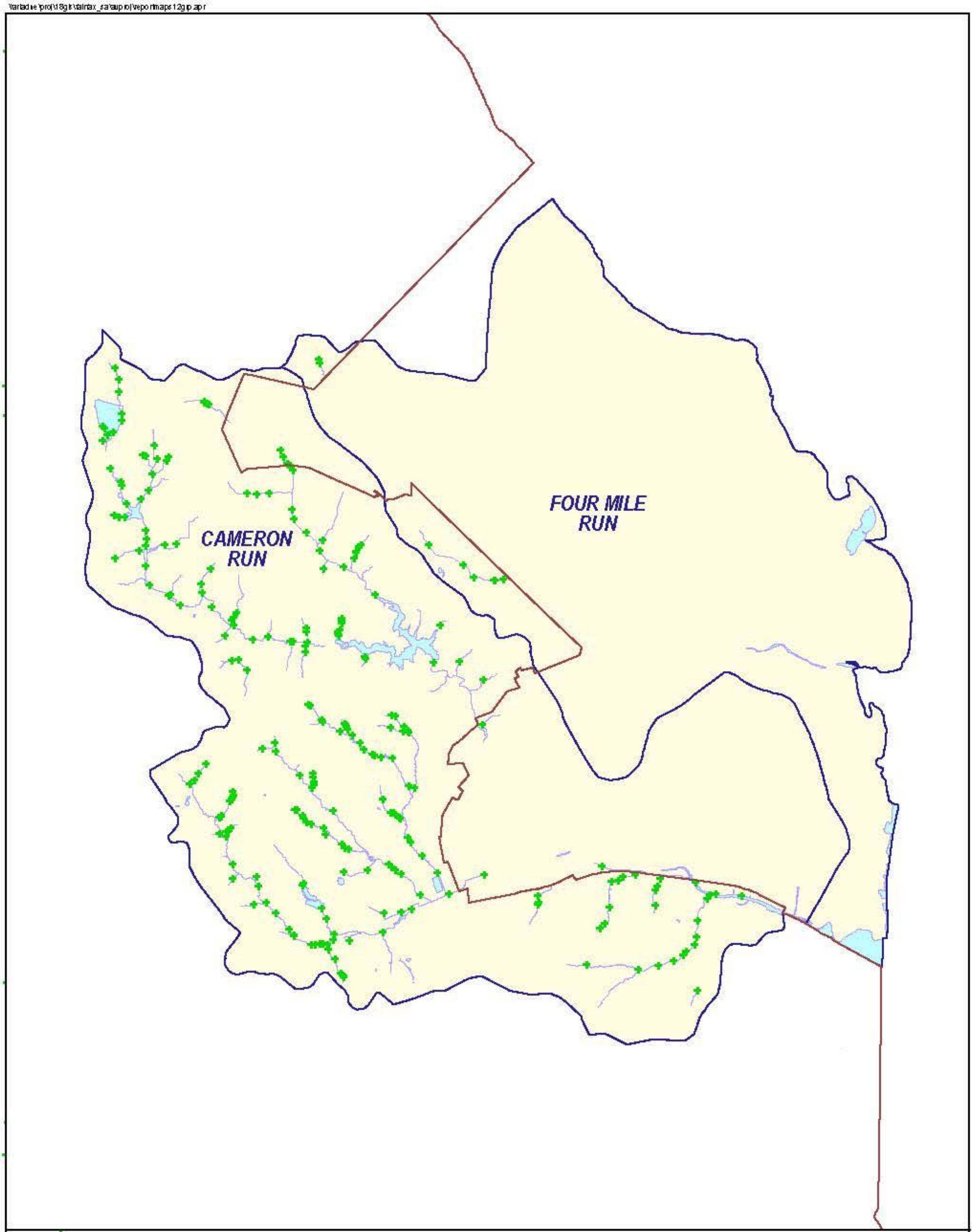

WATERSHED GROUP:
CAMERON RUN

Inventory Type
+ Crossing

Fairfax County Boundary
Lakes and Ponds
Streams
Watersheds

N

0 3000 6000 9000 12000 Feet

Figure 3-35
Crossings
Cameron Run Group
Fairfax County Stream Physical Assessment

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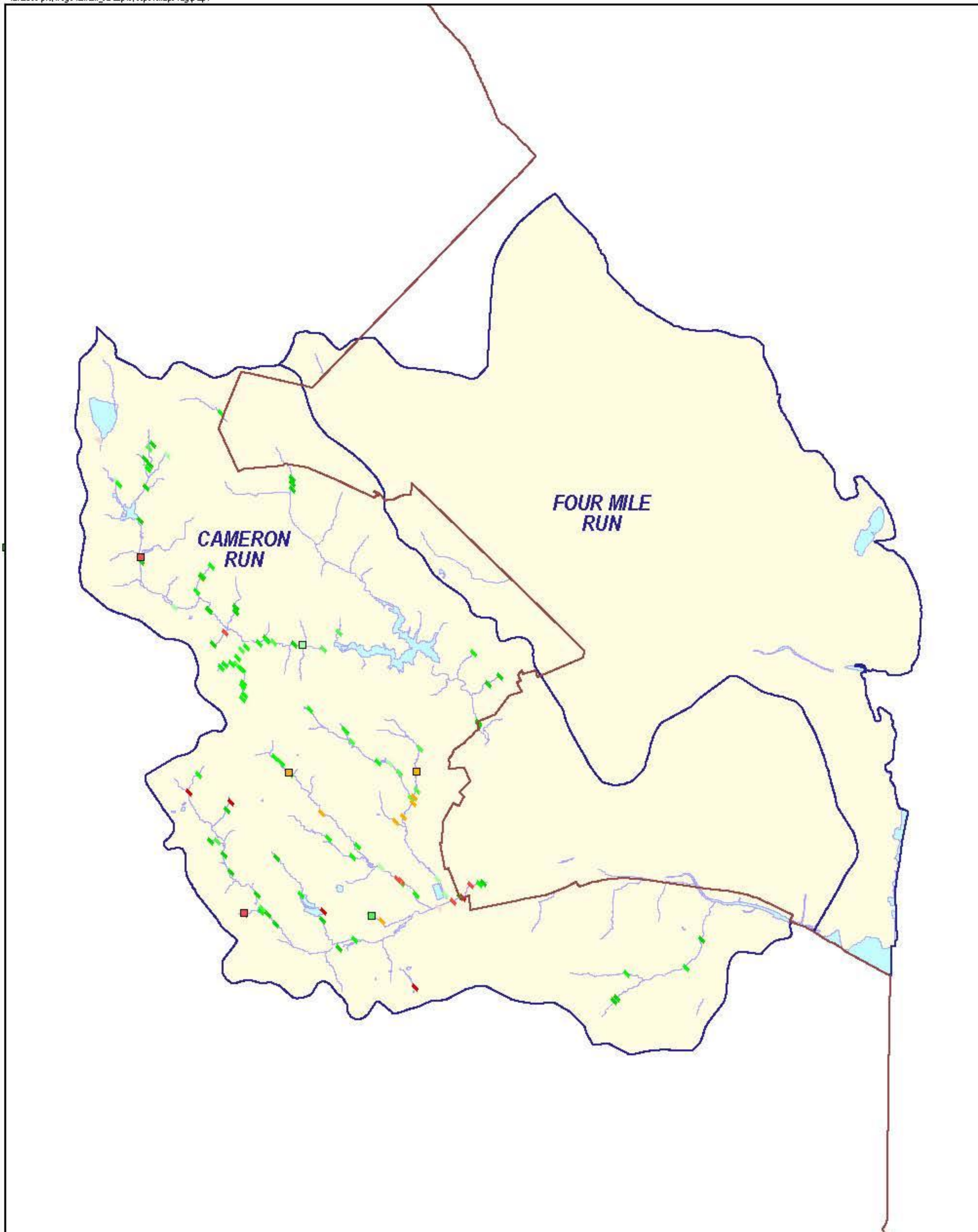

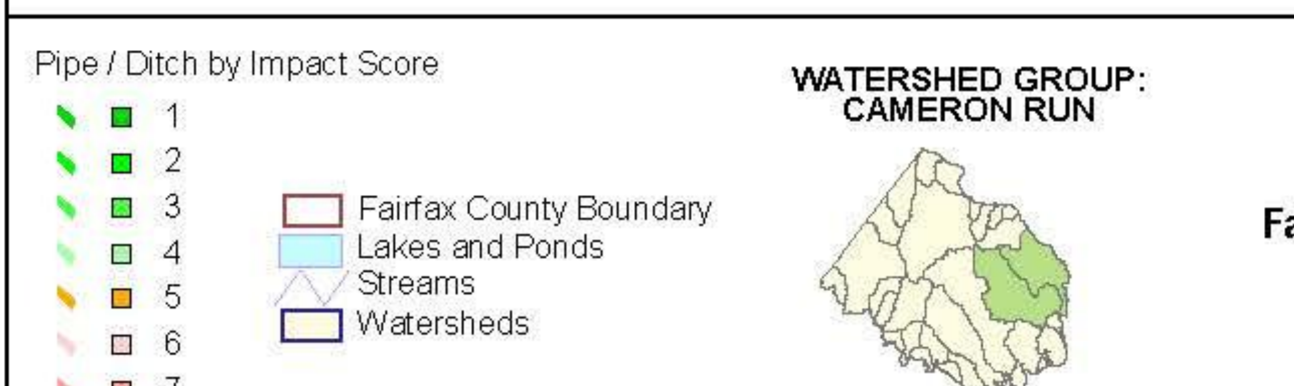

Figure 3-36
Pipe and Ditch Impacts
Cameron Run Group
Fairfax County Stream Physical Assessment

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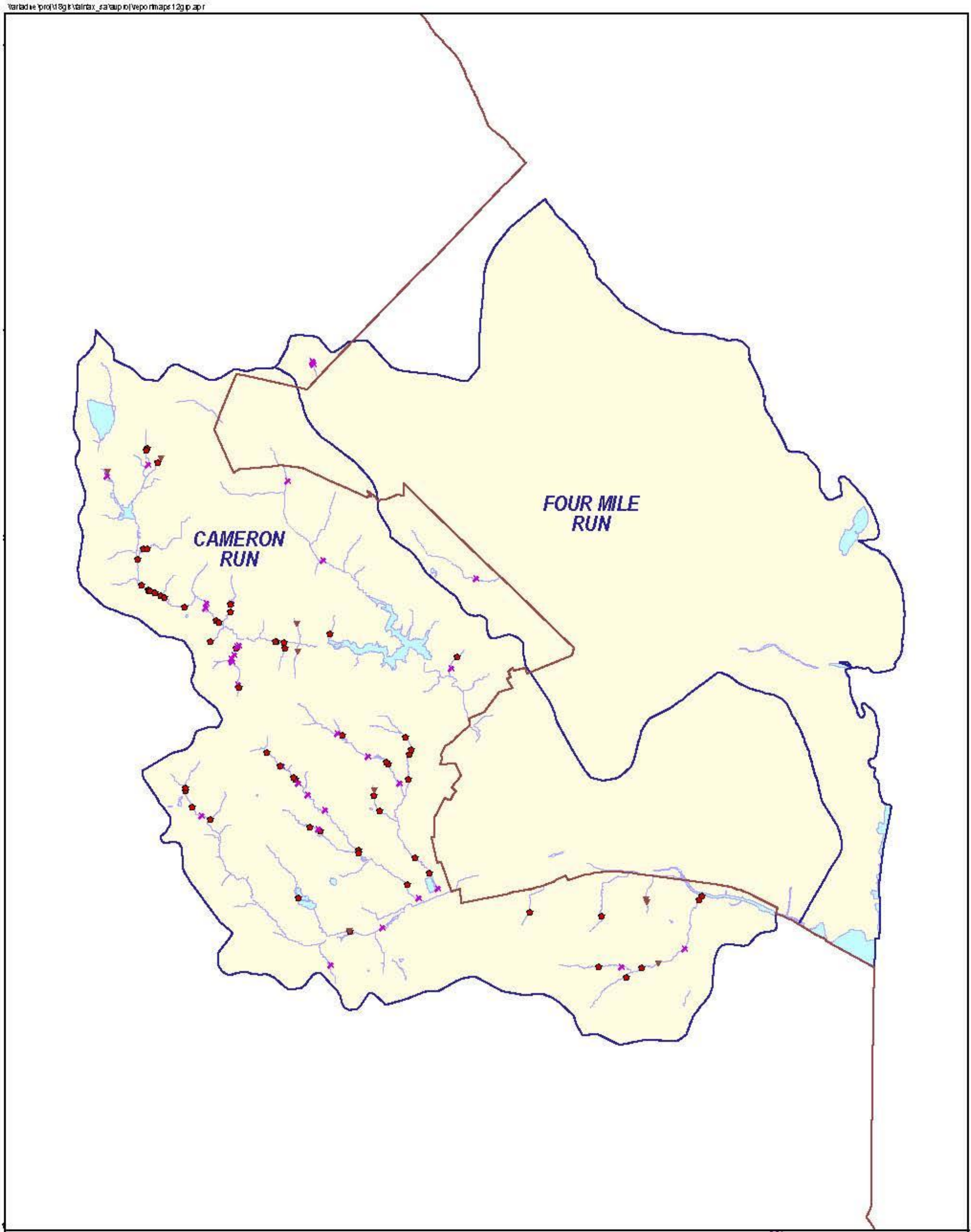

Figure 3-37
Dumps, Obstructions, and Utilities
Cameron Run Group
Fairfax County Stream Physical Assessment

3.2.6 Lower Potomac Group Summary

3.2.6.1 Dogue Creek Watershed

Description. Dogue Creek Watershed is a medium-sized watershed, with approximately 17 miles of stream assessed. It is located along the middle of the southeastern boundary of the County. The watershed is entirely contained within the County Boundaries, and drains directly to the Potomac River.

Habitat. The habitat assessment results for Dogue Creek Watershed are summarized by stream in Table 3-29. Habitat scores for each reach are depicted in Figure 3-38. Based on a length weighted habitat score of 96 (Table 3-2), Dogue Creek Watershed is in the lower range of quality, compared to the rest of the County. Approximately 5 miles of stream were categorized as having "poor" habitat conditions, 9 miles as "fair," and 3 miles as "good."

CEM. Based on the CEM evaluations approximately 50 percent of the channels assessed in Dogue Creek Watershed are in Evolutionary Stage 3 (Table 3-3), with most of the remainder of the watershed in Stage 4. Figure 3-39 summarizes the CEM results for Dogue Creek Watershed.

Infrastructure. The infrastructure inventory resulted in 313 inventory points. The most significant problems were 10 inventory points, which was given impact scores of 10, including deficient buffers, head cuts, obstructions, and an erosional area. The infrastructure inventory results are summarized in Table 3-30. Figures 3-40, 3-41, 3-42, 3-43, and 3-44 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

3.2.6.2 Little Hunting Creek Watershed

Description. Little Hunting Creek Watershed is a medium-sized watershed, with approximately 10 miles of stream assessed. It is located along the southeastern boundary of the County. The watershed is entirely contained within the County Boundaries, and drains directly to the Potomac River.

Habitat. The habitat assessment results for Little Hunting Creek Watershed are summarized by stream in Table 3-31. Habitat scores for each reach are depicted in Figure 3-38. Based on a length weighted habitat score of 82 (Table 3-2), Little Hunting Creek Watershed is one of the poorest quality watersheds in the County. Approximately 2 miles of stream were categorized as having "very poor" habitat conditions, 4 miles as "poor," 5 miles as "fair."

CEM. Based on the CEM evaluations approximately 40 percent of the channels assessed in Little Hunting Creek Watershed are in Evolutionary Stage 3 (Table 3-3), with most of the remainder of the watershed in Stage 4. Figure 3-39 summarizes the CEM results for Little Hunting Creek Watershed.

Infrastructure. The infrastructure inventory resulted in 207 inventory points. The most significant problems were related to a pipe and a deficient buffer, which was given impact scores of 9. The infrastructure inventory results are summarized in Table 3-32. Figures 3-40, 3-41, 3-42, 3-43, and 3-44 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

3.2.6.3 Belle Haven Watershed

Description. Belle Haven Watershed is a small watershed, with approximately 2 miles of stream assessed. It is located on the eastern boundary of the County. The watershed is entirely contained within the County Boundaries, containing multiple tributaries that drain directly to Cameron Run and the Potomac River.

Habitat. The habitat assessment results for Belle Haven Watershed are summarized by stream in Table 3-33. Habitat scores for each reach are depicted in Figure 3-38. Based on a length weighted habitat score of 71 (Table 3-2), Belle Haven Watershed is the poorest quality watershed in the County. Approximately 1 mile of stream was categorized as having "poor" habitat conditions and 0.5 mile as "fair."

CEM. Based on the CEM evaluations all of the channels assessed in Belle Haven Watershed are in Evolutionary Stage 3 (Table 3-3). Figure 3-39 summarizes the CEM results for Belle Haven Watershed.

Infrastructure. The infrastructure inventory resulted in 35 inventory points. The most significant problem was related to an erosional area, which was given an impact score of 8. The infrastructure inventory results are summarized in Table 3-34. Figures 3-40, 3-41, 3-42, 3-43, and 3-44 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

TABLE 3-29
Habitat Assessment Summary for Little Dogue Creek Watershed
Fairfax County Stream Physical Assessment

Stream	Linear Feet (Percent) of Stream					
	Very Poor	**Poor**	**Fair**	**Good**	**Excellent**	**Total**
Barnyard Run	0 (0.00)	0 (0.00)	843 (27.07)	2,271 (72.93)	0 (0.00)	3,114
Dogue Creek	304 (1.35)	5,078 (22.46)	5,636 (24.93)	11,586 (51.26)	0 (0.00)	22,603
North Fork	0 (0.00)	3,320 (100.00)	0 (0.00)	0 (0.00)	0 (0.00)	3,320
North Fork of Dogue Creek	0 (0.00)	12,430 (41.03)	17,866 (58.97)	0 (0.00)	0 (0.00)	30,295
Piney Run	0 (0.00)	3,951 (15.31)	21,855 (84.69)	0 (0.00)	0 (0.00)	25,806
Tributary to Douge Creek	0 (0.00)	0 (0.00)	0 (0.00)	2,355 (100.00)	0 (0.00)	2,355
Watershed Total	**304 (0.35)**	**24,778 (28.32)**	**46,199 (52.80)**	**16,212 (18.53)**	**0 (0.00)**	**87,493**

TABLE 3-30
Infrastructure Assessment Summary for Dogue Creek Watershed
Fairfax County Stream Physical Assessment

Impact Score	0	1	2	3	4	5	6	7	8	9	10	>10	Total
Deficient Buffers	0	0	0	3	1	6	5	41	14	6	2	N/A	78
Crossings	32	20	30	13	12	3	0	1	0	0	0	N/A	111
Ditches and Pipes	43	21	5	5	3	1	0	0	0	0	0	N/A	78
Erosion	0	0	0	0	1	1	2	8	4	1	1	N/A	18
Head Cut	0	0	0	0	0	1	0	0	0	0	4	N/A	5
Obstruction	6	2	0	0	1	0	1	1	3	4	3	N/A	21
Utility	0	0	0	1	0	0	0	0	1	0	0	0	2
Total	**81**	**43**	**35**	**22**	**18**	**12**	**8**	**51**	**22**	**11**	**10**	**0**	**313**

TABLE 3-31
Habitat Assessment Summary for Little Hunting Creek Watershed
Fairfax County Stream Physical Assessment

Stream	Linear Feet (Percent) of Stream					
	Very Poor	Poor	Fair	Good	Excellent	Total
Little Hunting Creek	6,610 (32.96)	6,322 (31.52)	7,125 (35.52)	0 (0.00)	0 (0.00)	20,057
North Branch	1,127 (9.14)	10,111 (81.96)	1,098 (8.90)	0 (0.00)	0 (0.00)	12,337
Paul Spring Branch	0 (0.00)	3,267 (17.08)	15,860 (82.92)	0 (0.00)	0 (0.00)	19,127
Tributary to Potomac River	0 (0.00)	732 (100.00)	0 (0.00)	0 (0.00)	0 (0.00)	732
Watershed Total	**7,737 (14.81)**	**20,433 (39.10)**	**24,083 (46.09)**	**0 (0.00)**	**0 (0.00)**	**52,253**

TABLE 3-32
Infrastructure Assessment Summary for Little Hunting Creek Watershed
Fairfax County Stream Physical Assessment

Impact Score	0	1	2	3	4	5	6	7	8	9	10	>10	Total
Deficient Buffers	1	0	5	15	4	20	4	8	1	1	0	N/A	59
Crossings	26	11	5	2	1	2	2	1	0	0	0	N/A	50
Ditches and Pipes	38	8	5	5	3	0	1	1	0	1	0	N/A	62
Erosion	0	0	0	0	0	3	2	1	0	0	0	N/A	6
Head Cut	0	0	0	0	2	0	0	0	0	0	0	N/A	2
Obstruction	0	1	6	9	1	1	1	0	0	0	0	N/A	19
Utility	1	2	3	3	0	0	0	0	0	0	0	0	9
Total	**66**	**22**	**24**	**34**	**11**	**26**	**10**	**11**	**1**	**2**	**0**	**0**	**207**

TABLE 3-33
Habitat Assessment Summary for Belle Haven Watershed
Fairfax County Stream Physical Assessment

Stream	Linear Feet (Percent) of Stream					
	Very Poor	**Poor**	**Fair**	**Good**	**Excellent**	**Total**
Hunting Creek	2,664 (60.72)	1,723 (39.28)	0 (0.00)	0 (0.00)	0 (0.00)	4,387
Tributary to Hunting Creek	0 (0.00)	2,583 (100.00)	0 (0.00)	0 (0.00)	0 (0.00)	2,583
Tributary to Potomac River	0 (0.00)	0 (0.00)	2,396 (100.00)	0 (0.00)	0 (0.00)	2,396
Watershed Total	**2,664 (28.44)**	**4,306 (45.98)**	**2,396 (25.58)**	**0 (0.00)**	**0 (0.00)**	**9,366**

TABLE 3-34
Infrastructure Assessment Summary for Belle Haven Watershed
Fairfax County Stream Physical Assessment

Impact Score	0	1	2	3	4	5	6	7	8	9	10	>10	Total
Deficient Buffers	0	0	0	3	2	3	0	3	0	0	0	N/A	11
Crossings	8	0	0	0	0	0	0	0	0	0	0	N/A	8
Ditches and Pipes	10	0	0	0	0	0	0	0	0	0	0	N/A	10
Erosion	0	0	0	0	0	2	0	0	1	0	0	N/A	3
Head Cut	0	0	0	0	0	0	0	0	0	0	0	N/A	0
Obstruction	0	0	0	0	0	1	0	1	0	0	0	N/A	2
Utility	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	**18**	**0**	**0**	**4**	**2**	**6**	**0**	**4**	**1**	**0**	**0**	**0**	**35**

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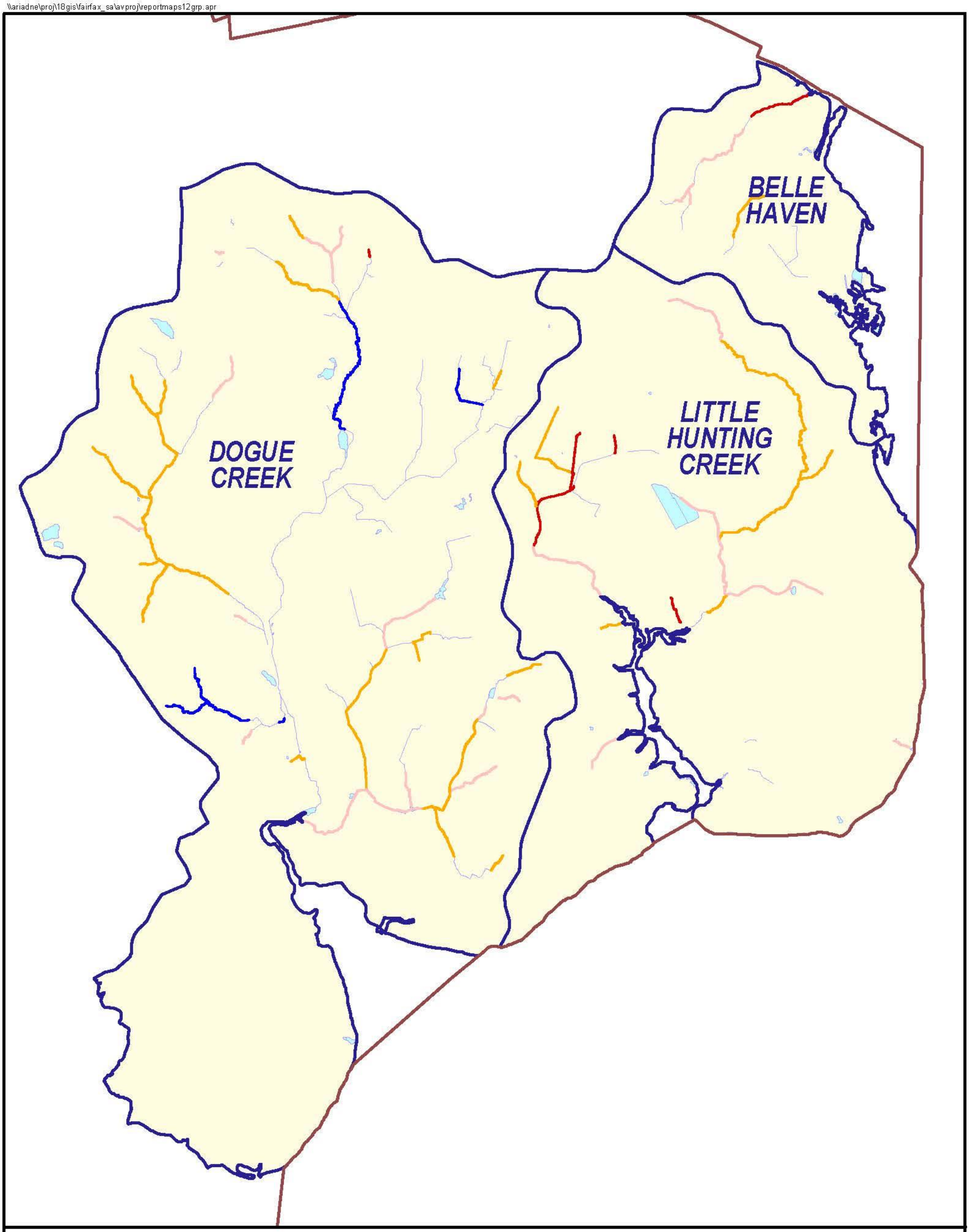

Fairfax County Boundary

Habitat Rating

- Excellent
- Good
- Fair
- Poor
- Very Poor
- No Habitat Assessment
- Lakes and Ponds
- Watersheds

N

WATERSHED GROUP: LOWER POTOMAC

0 2000 4000 6000 8000 Feet

Figure 3-38
Habitat Assessment
Lower Potomac Group
Fairfax County Stream Physical Assessment

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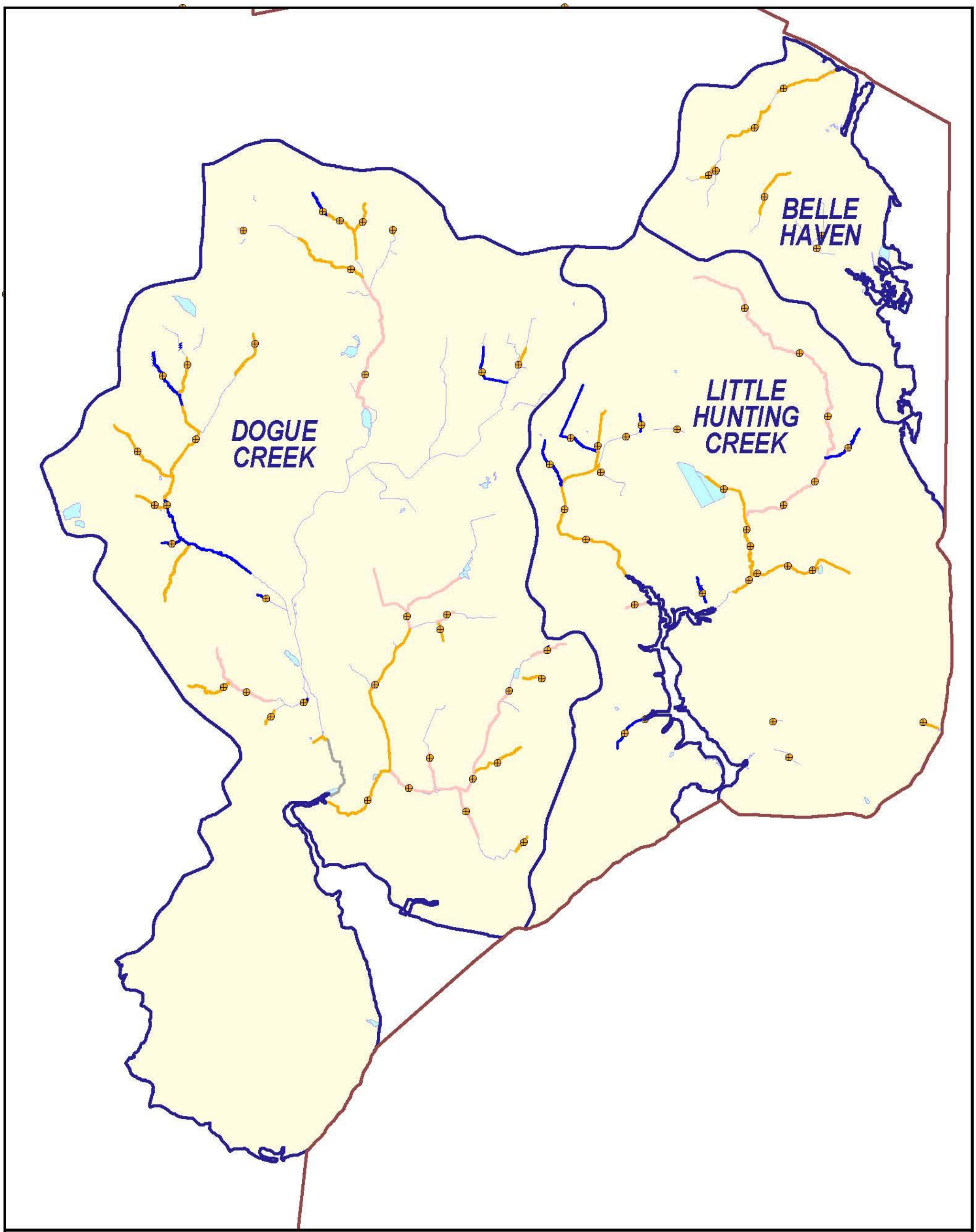

Inventory Types
- Cross Section
- Head Cut

CEM Stage
- Not Assigned
- 1
- 2
- 3
- 4
- 5
- Fairfax County Boundary
- Lakes and Ponds
- Streams
- Watersheds

N

0 2000 4000 6000 8000 Feet

WATERSHED GROUP: LOWER POTOMAC

Figure 3-39
CEM Stages
Lower Potomac Group
Fairfax County Stream Physical Assessment

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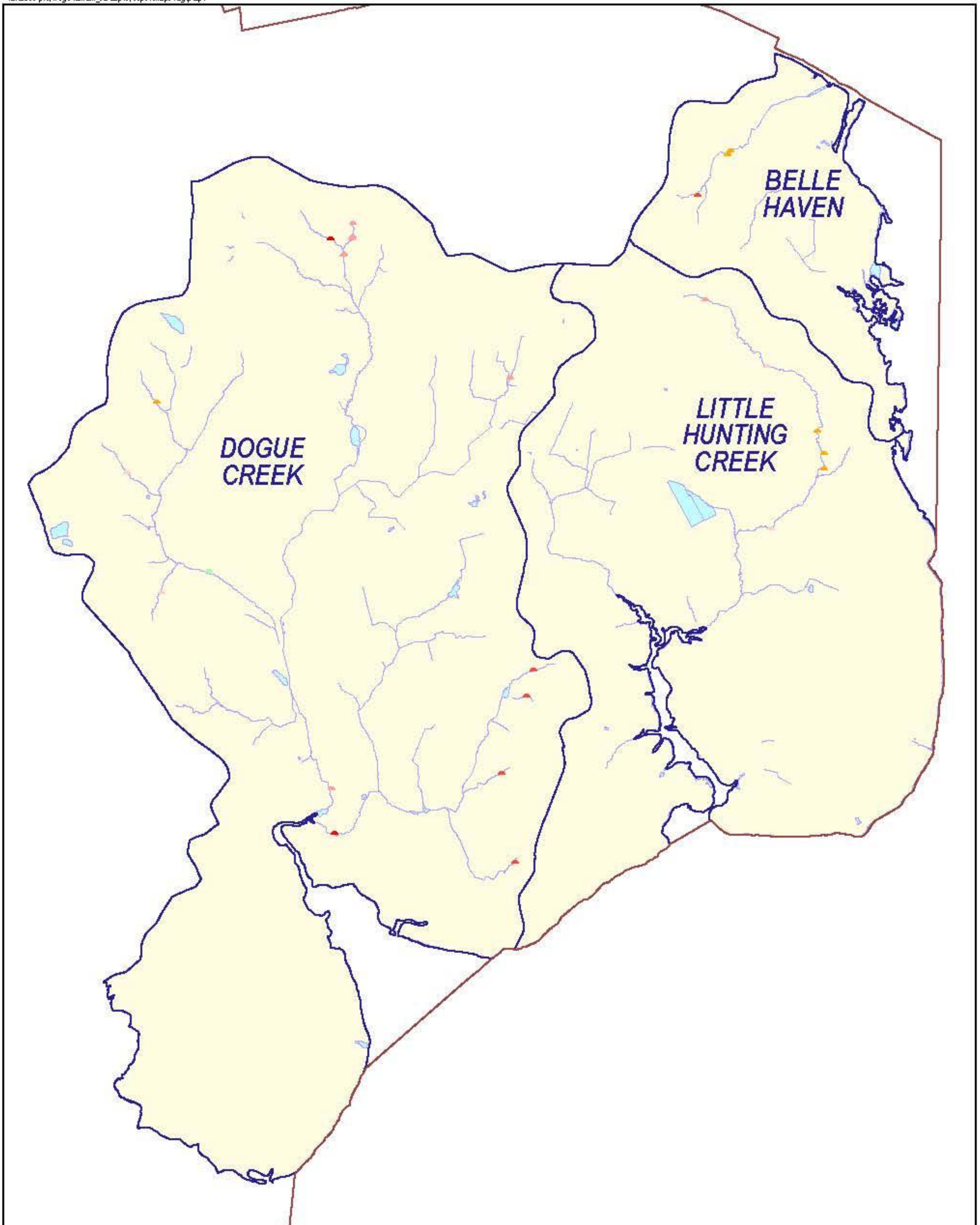


Erosion by Impact Score
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Fairfax County Boundary
Lakes and Ponds
Streams
Watersheds

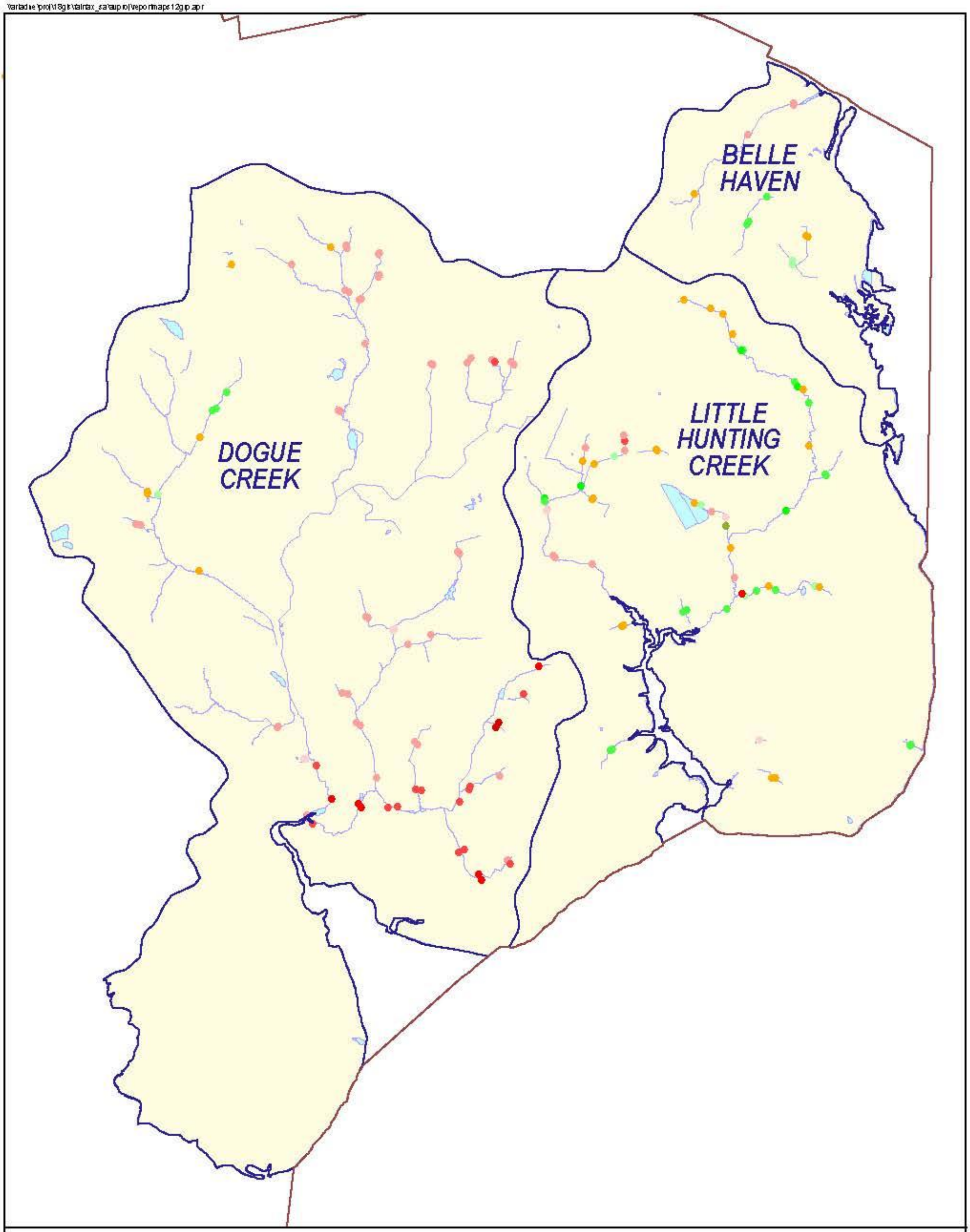
WATERSHED GROUP:
LOWER POTOMAC

N

0 2000 4000 6000 8000 Feet

Figure 3-40
Erosion Impacts
Lower Potomac Group
Fairfax County Stream Physical Assessment

CH2MHILL



Deficient Buffer by Impact Score

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Fairfax County Boundary
Lakes and Ponds
Streams
Watersheds

N

WATERSHED GROUP:
LOWER POTOMAC

0 2000 4000 6000 8000 Feet

Figure 3-41
Deficient Buffer Impacts
Lower Potomac Group
Fairfax County Stream Physical Assessment

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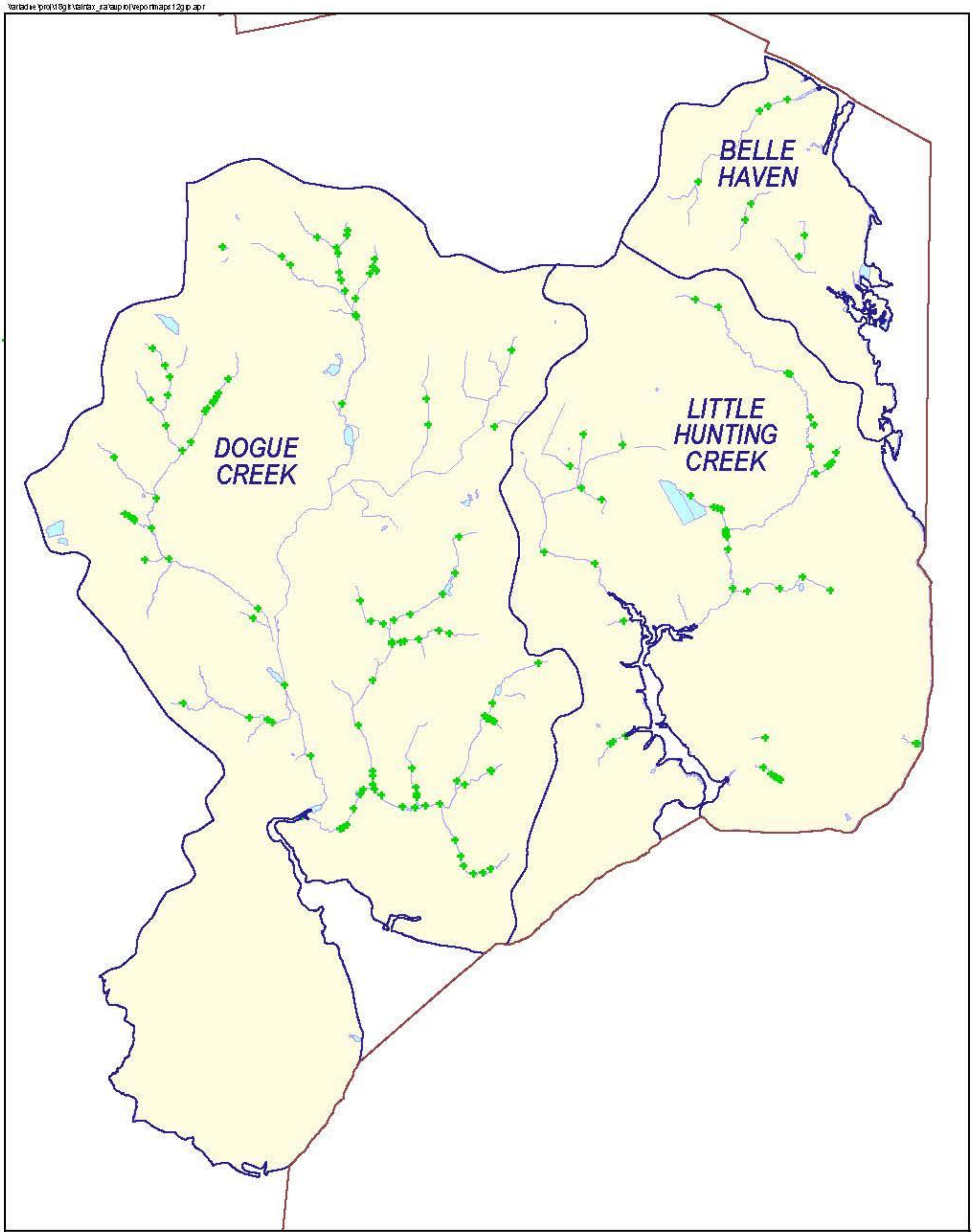


Inventory Type
+ Crossing

Fairfax County Boundary
Lakes and Ponds
Streams
Watersheds

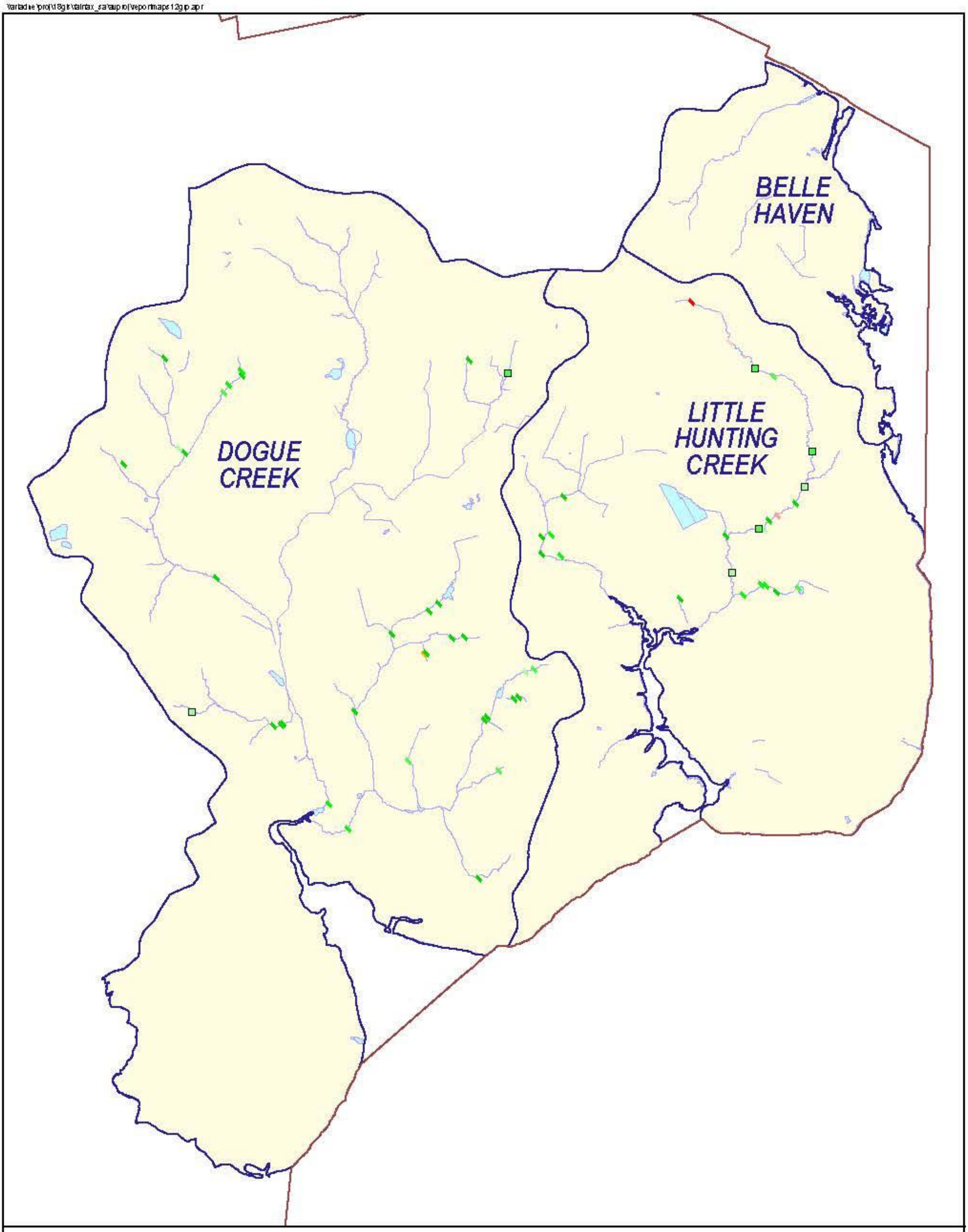
WATERSHED GROUP:
LOWER POTOMAC

N

0 2000 4000 6000 8000 Feet

Figure 3-42
Crossings
Lower Potomac Group
Fairfax County Stream Physical Assessment

CH2MHILL



Pipe / Ditch by Impact Score

1
2
3
4
5
6
7
8
9
10

Fairfax County Boundary
Lakes and Ponds
Streams
Watersheds

N

WATERSHED GROUP:
LOWER POTOMAC

0 2000 4000 6000 8000 Feet

Figure 3-43
Pipe and Ditch Impacts
Lower Potomac Group
Fairfax County Stream Physical Assessment

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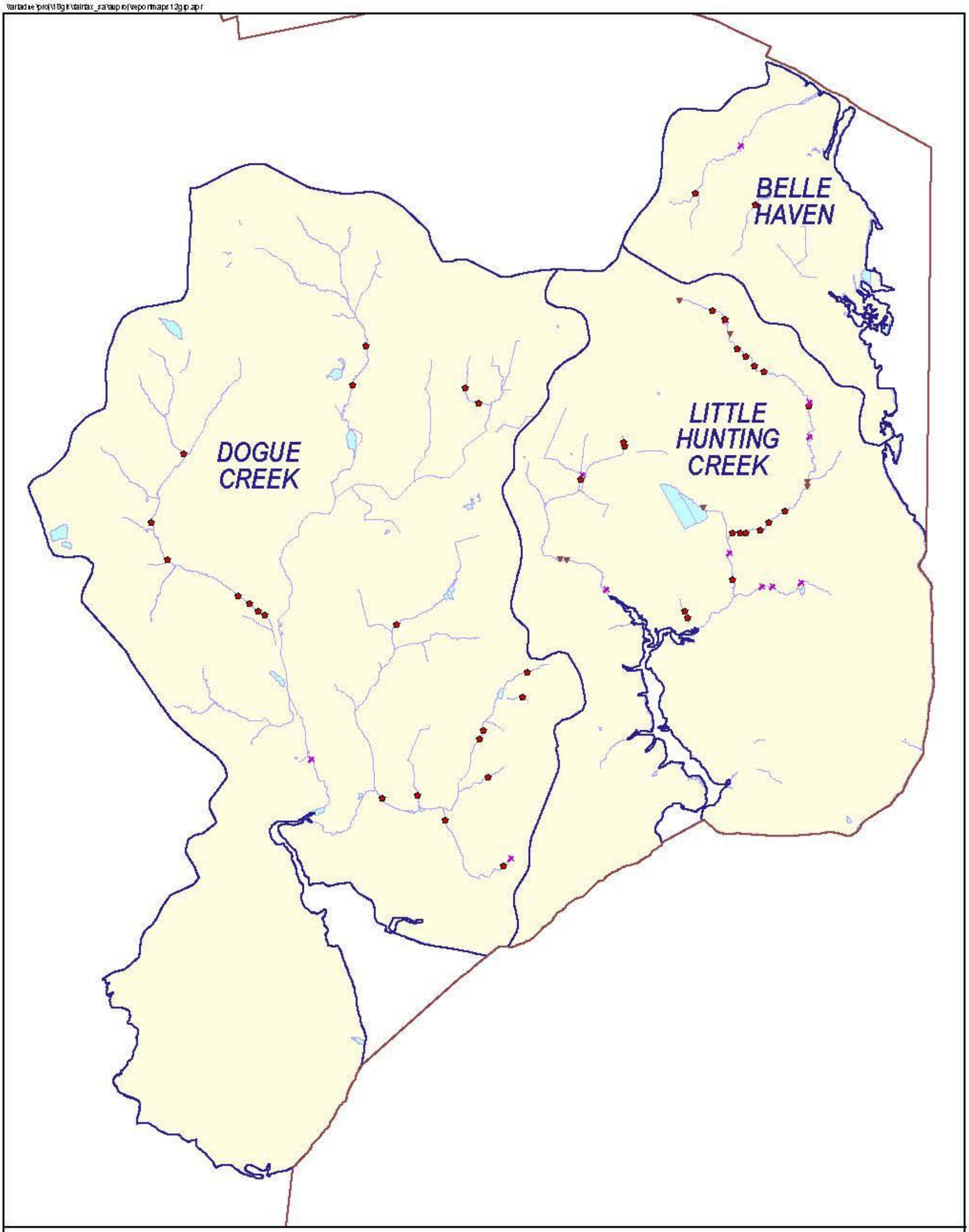

Inventory Types
- Dump
- Obstruction
- Utility

- Fairfax County Boundary
- Lakes and Ponds
- Streams
- Watersheds

WATERSHED GROUP:
LOWER POTOMAC

N

0 2000 4000 6000 8000 Feet

Figure 3-44
Dumps, Obstructions, and Utilities
Lower Potomac Group
Fairfax County Stream Physical Assessment

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