

## 3.2.10 Lower Bull Run Group Summary

### 3.2.10.1 Little Rocky Run Watershed

**Description.** Little Rocky Run Watershed is a medium-sized watershed, with approximately 13 miles of stream assessed. It is located along the middle of the southwestern boundary of the County. The watershed is entirely contained within the County Boundaries, and drains directly to Bull Run, which eventually discharges to the Potomac River.

**Habitat.** The habitat assessment results for Little Rocky Run Watershed are summarized by stream in Table 3-43. Habitat scores for each reach are depicted in Figure 3-66. Based on a length weighted habitat score of 102 (Table 3-2), Little Rocky Run Watershed is in the lower middle range of quality, compared to the rest of the County. Approximately 2 miles of stream were categorized as having “poor” habitat conditions, 8 miles as “fair,” 2 miles as “good,” and less than 1 mile as “excellent.”

**CEM.** Based on the CEM evaluations approximately half of the channels assessed in Little Rocky Run Watershed are in Evolutionary Stage 3 (Table 3-3) and the remainder are split between Stages 2 and 4. Figure 3-67 summarizes the CEM results for Little Rocky Run Watershed.

**Infrastructure.** The infrastructure inventory resulted in 153 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 3-44. Figures 3-68, 3-69, 3-70, 3-71, and 3-72 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

### 3.2.10.2 Johnny Moore Creek Watershed

**Description.** Johnny Moore Creek Watershed is a medium-sized watershed, with approximately 12 miles of stream assessed. It is located along the middle of the southwestern boundary of the County. The watershed is entirely contained within the County Boundaries, and drains directly to Bull Run, which eventually discharges to the Potomac River.

**Habitat.** The habitat assessment results for Johnny Moore Creek Watershed are summarized by stream in Table 3-45. Habitat scores for each reach are depicted in Figure 3-66. Based on a length weighted habitat score of 104 (Table 3-2), Johnny Moore Creek Watershed is in the middle range of quality, compared to the rest of the County. Approximately 2 miles of stream were categorized as having “poor” habitat conditions, 7 miles as “fair,” and nearly 3 miles as “good.”

**CEM.** Based on the CEM evaluations approximately 97 percent of the channels assessed in Johnny Moore Creek Watershed are in Evolutionary Stage 3 (Table 3-3). Figure 3-67 summarizes the CEM results for Johnny Moore Creek Watershed.

**Infrastructure.** The infrastructure inventory resulted in 127 inventory points. The most significant problem was related to an erosional area, which was given an impact score of 9. The infrastructure inventory results are summarized in Table 3-46. Figures 3-68, 3-69, 3-70,

3-71, and 3-72 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ ditches; and dumps, obstructions, and utilities, respectively.

### 3.2.10.3 Popes Head Creek Watershed

**Description.** Popes Head Creek Watershed is a large watershed, with approximately 50 miles of stream assessed. It is located along the middle of the southwestern boundary of the County. The watershed is entirely contained within the County Boundaries, and drains directly to Bull Run, which eventually discharges to the Potomac River.

**Habitat.** The habitat assessment results for Popes Head Creek Watershed are summarized by stream in Table 3-47. Habitat scores for each reach are depicted in Figure 3-66. Based on a length weighted habitat score of 103 (Table 3-2), Popes Head Creek Watershed is in the middle range of quality, compared to the rest of the County. Approximately 1 mile of stream was categorized as having “very poor” habitat conditions, 8 miles as “poor,” 27 miles as “fair,” and 13 miles as “good.”

**CEM.** Based on the CEM evaluations approximately 60 percent of the channels assessed in Popes Head Creek Watershed are in Evolutionary Stage 3 (Table 3-3), with most of the remainder of the watershed in Stage 4. Figure 3-67 summarizes the CEM results for Popes Head Creek Watershed.

**Infrastructure.** The infrastructure inventory resulted in 382 inventory points. The most significant problem was related to a pipe, which was given an impact score of 9. The infrastructure inventory results are summarized in Table 3-48. Figures 3-68, 3-69, 3-70, 3-71, and 3-72 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ ditches; and dumps, obstructions, and utilities, respectively.

**TABLE 3-43**  
Habitat Assessment Summary for Little Rocky Run Watershed  
*Fairfax County Stream Physical Assessment*

Stream	Linear Feet (Percent) of Stream					Total
	Very Poor	Poor	Fair	Good	Excellent	
Little Rocky Run	0 (0.00)	5,030 (10.84)	28,153 (60.64)	9,659 (20.81)	3,581 (7.71)	46,424
Tributary to Bull Run	0 (0.00)	0 (0.00)	656 (100.00)	0 (0.00)	0 (0.00)	656
Tributary to Little Rocky Run	0 (0.00)	7,880 (76.03)	2,484 (23.97)	0 (0.00)	0 (0.00)	10,365
Willow Springs Branch	0 (0.00)	0 (0.00)	12,090 (100.00)	0 (0.00)	0 (0.00)	12,090
<b>Watershed Total</b>	<b>0 (0.00)</b>	<b>12,911 (18.57)</b>	<b>43,383 (62.39)</b>	<b>9,659 (13.89)</b>	<b>3,581 (5.15)</b>	<b>69,534</b>

**TABLE 3-44**  
Infrastructure Assessment Summary for Little Rocky Run Watershed  
*Fairfax County Stream Physical Assessment*

<b>Impact Score</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>&gt;10</b>	<b>Total</b>
Deficient Buffers	0	0	0	3	5	3	1	7	0	0	0	N/A	19
Crossings	13	17	21	9	3	2	0	1	0	0	0	N/A	66
Ditches and Pipes	24	10	10	2	0	1	1	0	0	0	0	N/A	48
Erosion	0	0	0	0	0	1	2	0	1	0	0	N/A	4
Head Cut	0	0	0	0	1	0	0	0	0	0	0	N/A	1
Obstruction	6	1	0	0	3	2	0	2	0	0	0	N/A	14
Utility	0	0	0	1	0	0	0	0	0	0	0	0	1
<b>Total</b>	<b>43</b>	<b>28</b>	<b>31</b>	<b>15</b>	<b>12</b>	<b>9</b>	<b>4</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>153</b>

**TABLE 3-45**  
Habitat Assessment Summary for Johnny Moore Creek Watershed  
*Fairfax County Stream Physical Assessment*

<b>Stream</b>	<b>Linear Feet (Percent) of Stream</b>					<b>Total</b>
	<b>Very Poor</b>	<b>Poor</b>	<b>Fair</b>	<b>Good</b>	<b>Excellent</b>	
Johnny Moore Creek	0 (0.00)	0 (0.00)	12,811 (52.93)	11,393 (47.07)	0 (0.00)	24,204
Polecat Branch	0 (0.00)	1,570 (35.02)	2,914 (64.98)	0 (0.00)	0 (0.00)	4,484
Tributary to Bull Run	0 (0.00)	0 (0.00)	0 (0.00)	2,110 (100.00)	0 (0.00)	2,110
Tributary to Johnny Moore Creek	677 (2.34)	8,007 (27.66)	19,136 (66.10)	1,131 (3.91)	0 (0.00)	28,951
Tributary to Polecat Branch	0 (0.00)	0 (0.00)	2,344 (100.00)	0 (0.00)	0 (0.00)	2,344
<b>Watershed Total</b>	<b>677 (1.09)</b>	<b>9,577 (15.42)</b>	<b>37,204 (59.92)</b>	<b>14,634 (23.57)</b>	<b>0 (0.00)</b>	<b>62,092</b>

**TABLE 3-46**  
Infrastructure Assessment Summary for Johnny Moore Creek Watershed  
*Fairfax County Stream Physical Assessment*

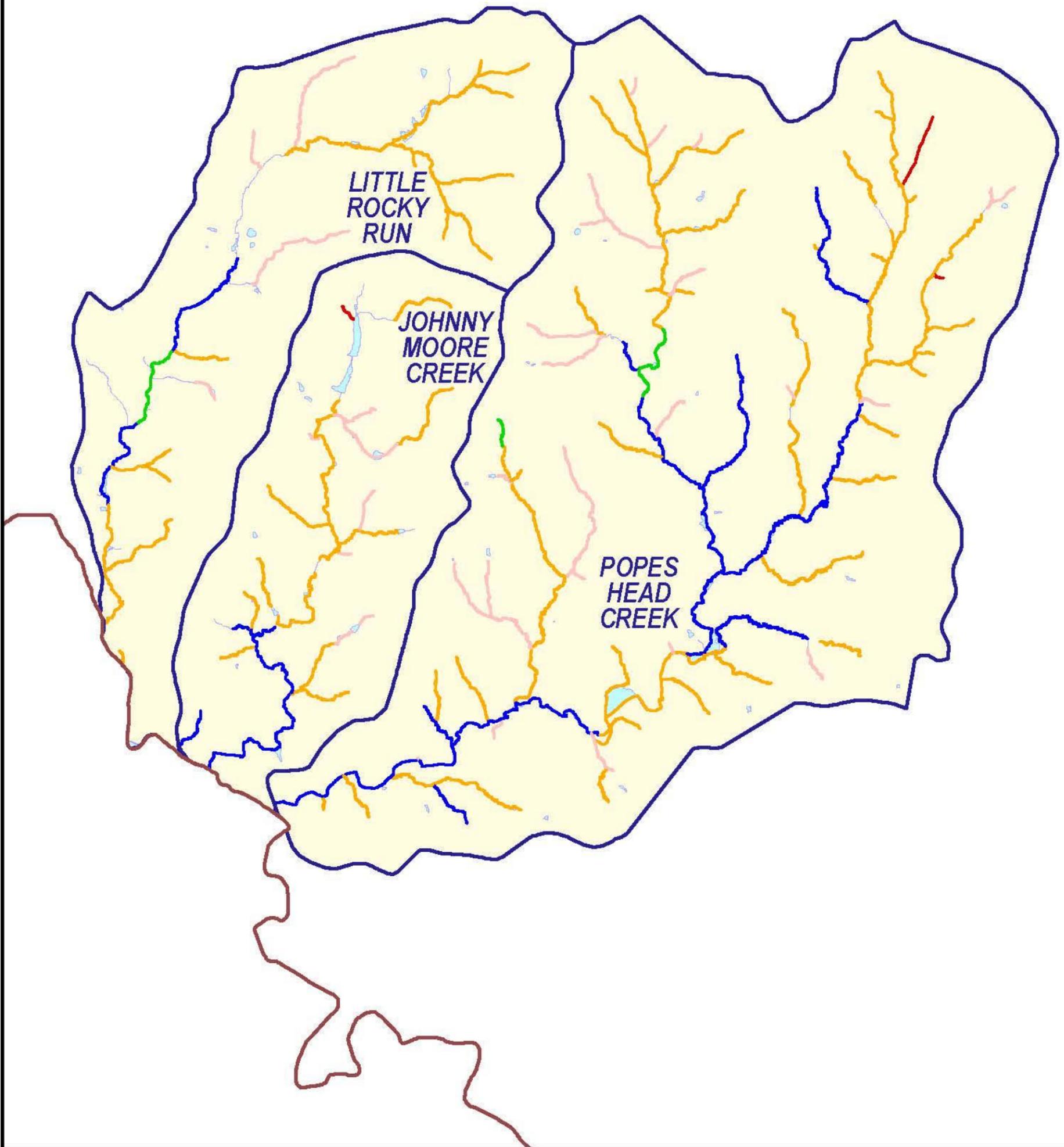
<b>Impact Score</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>&gt;10</b>	<b>Total</b>
Deficient Buffers	0	0	2	12	12	2	14	2	0	0	0	N/A	44
Crossings	50	3	5	6	0	1	0	2	0	0	0	N/A	67
Ditches and Pipes	4	0	0	0	0	0	0	0	0	0	0	N/A	4
Erosion	0	0	0	0	0	0	0	1	0	1	0	N/A	2
Head Cut	0	0	0	0	0	1	0	0	0	0	0	N/A	1
Obstruction	3	0	1	4	1	0	0	0	0	0	0	N/A	9
Utility	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>57</b>	<b>3</b>	<b>8</b>	<b>22</b>	<b>13</b>	<b>4</b>	<b>14</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>127</b>

**TABLE 3-47**  
Habitat Assessment Summary for Popes Head Creek Watershed  
*Fairfax County Stream Physical Assessment*

<b>Stream</b>	<b>Linear Feet (Percent) of Stream</b>					<b>Total</b>
	<b>Very Poor</b>	<b>Poor</b>	<b>Fair</b>	<b>Good</b>	<b>Excellent</b>	
Castle Creek	0 (0.00)	15,736 (50.89)	14,034 (45.38)	0 (0.00)	1,153 (3.73)	30,923
East Fork	0 (0.00)	2,180 (13.70)	13,726 (86.30)	0 (0.00)	0 (0.00)	15,906
Piney Branch	0 (0.00)	16,109 (23.24)	32,232 (46.50)	17,256 (24.90)	3,715 (5.36)	69,312
Popes Head Creek	0 (0.00)	6,303 (4.76)	73,978 (55.83)	52,230 (39.42)	0 (0.00)	132,511
Tributary to East Fork	419 (100.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	419
Tributary to Piney Branch	0 (0.00)	3,005 (100.00)	0 (0.00)	0 (0.00)	0 (0.00)	3,005
Tributary to Popes Head Creek	2,866 (28.80)	313 (3.15)	6,771 (68.05)	0 (0.00)	0 (0.00)	9,951
<b>Watershed Total</b>	<b>3,285 (1.25)</b>	<b>43,647 (16.66)</b>	<b>140,741 (53.71)</b>	<b>69,486 (26.52)</b>	<b>4,868 (1.86)</b>	<b>262,027</b>

**TABLE 3-48**  
 Infrastructure Assessment Summary for Popes Head Creek Watershed  
*Fairfax County Stream Physical Assessment*

<b>Impact Score</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>&gt;10</b>	<b>Total</b>
Deficient Buffers	0	7	21	54	34	5	1	0	0	0	0	N/A	122
Crossings	90	36	22	13	7	2	1	1	2	0	0	N/A	174
Ditches and Pipes	17	12	2	1	2	2	0	0	0	1	0	N/A	37
Erosion	0	0	0	0	1	0	2	0	0	0	0	N/A	3
Head Cut	0	0	1	2	5	4	0	1	1	0	0	N/A	14
Obstruction	0	5	8	4	8	2	1	1	1	0	0	N/A	30
Utility	1	0	0	0	1	0	0	0	0	0	0	0	2
<b>Total</b>	<b>108</b>	<b>60</b>	<b>54</b>	<b>74</b>	<b>58</b>	<b>15</b>	<b>5</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>382</b>



-  Fairfax County Boundary
- Habitat Rating**
-  Excellent
-  Good
-  Fair
-  Poor
-  Very Poor
-  No Habitat Assessment
-  Lakes and Ponds
-  Watersheds

**WATERSHED GROUP:  
LOWER BULL RUN**

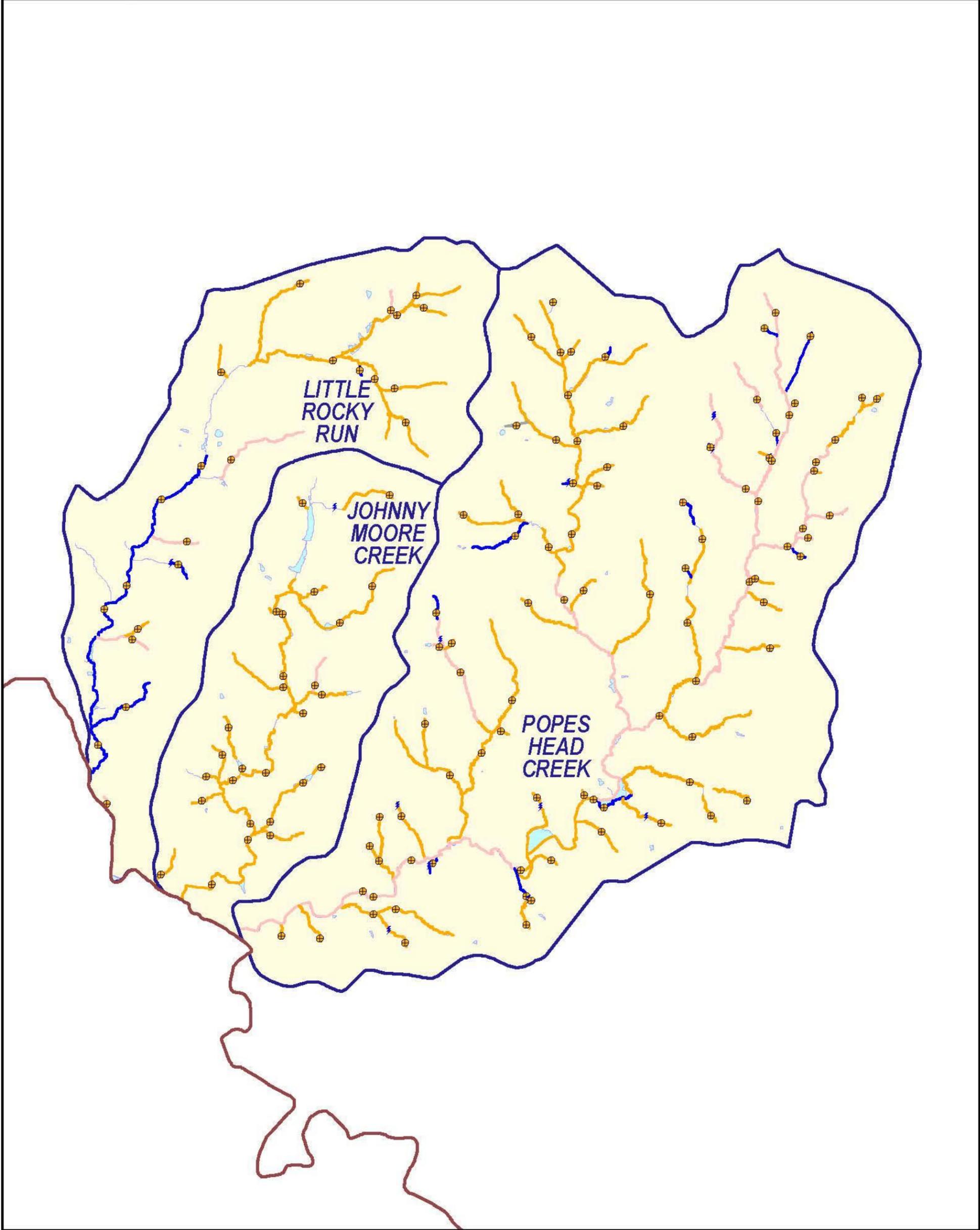


0 2000 4000 6000 8000 Feet



**Figure 3-66**  
**Habitat Assessment**  
**Lower Bull Run Group**  
**Fairfax County Stream Physical Assessment**





**Inventory Types**

- ⊕ Cross Section
- ⚡ Head Cut

**CEM Stage**

- ⚡ Not Assigned
- 1
- 2
- 3
- 4
- 5

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

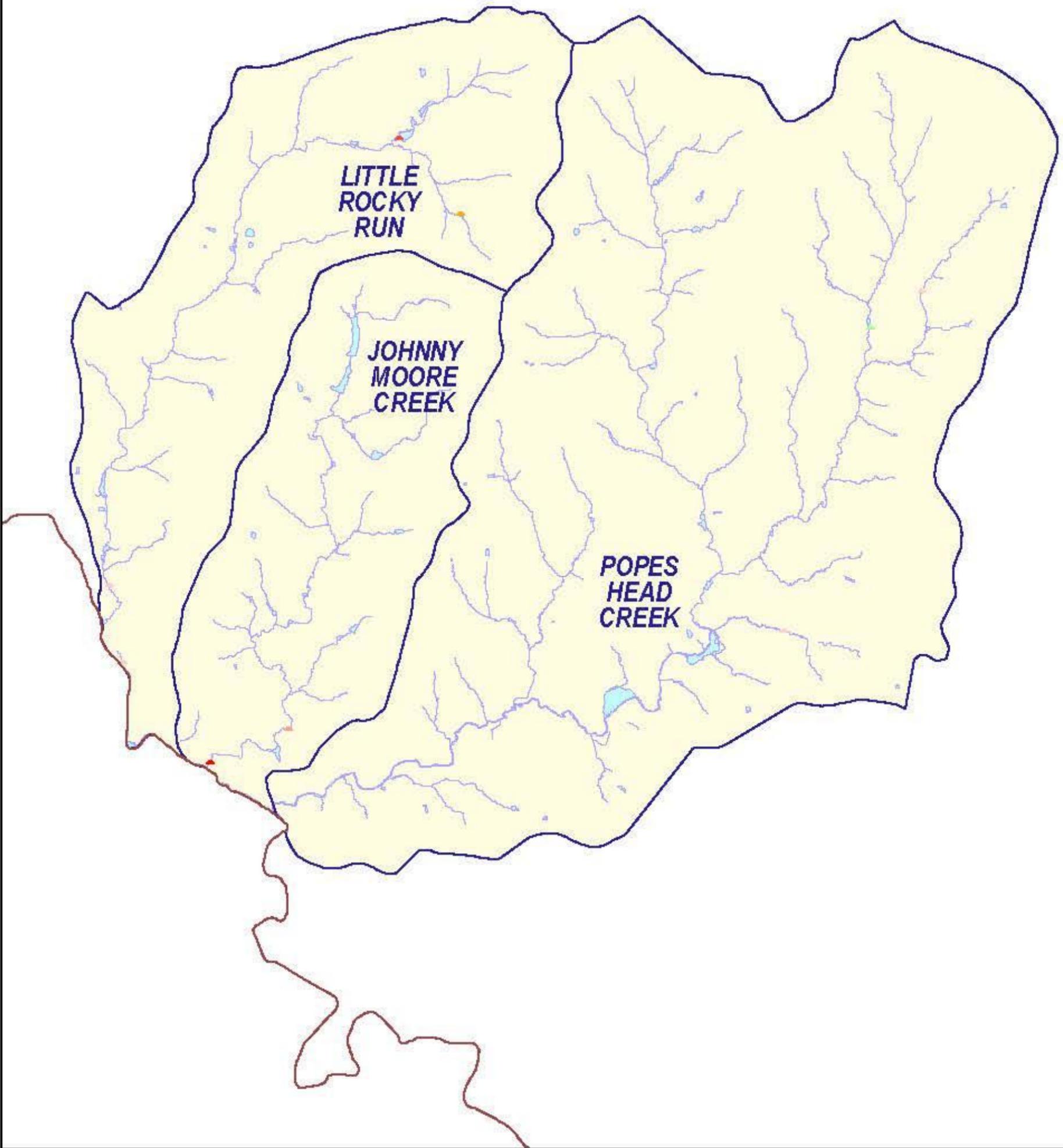
**WATERSHED GROUP:  
LOWER BULL RUN**



0 2000 4000 6000 8000 Feet

**Figure 3-67**  
**CEM Stages**  
**Lower Bull Run Group**  
**Fairfax County Stream Physical Assessment**





Erosion by Impact Score

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

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

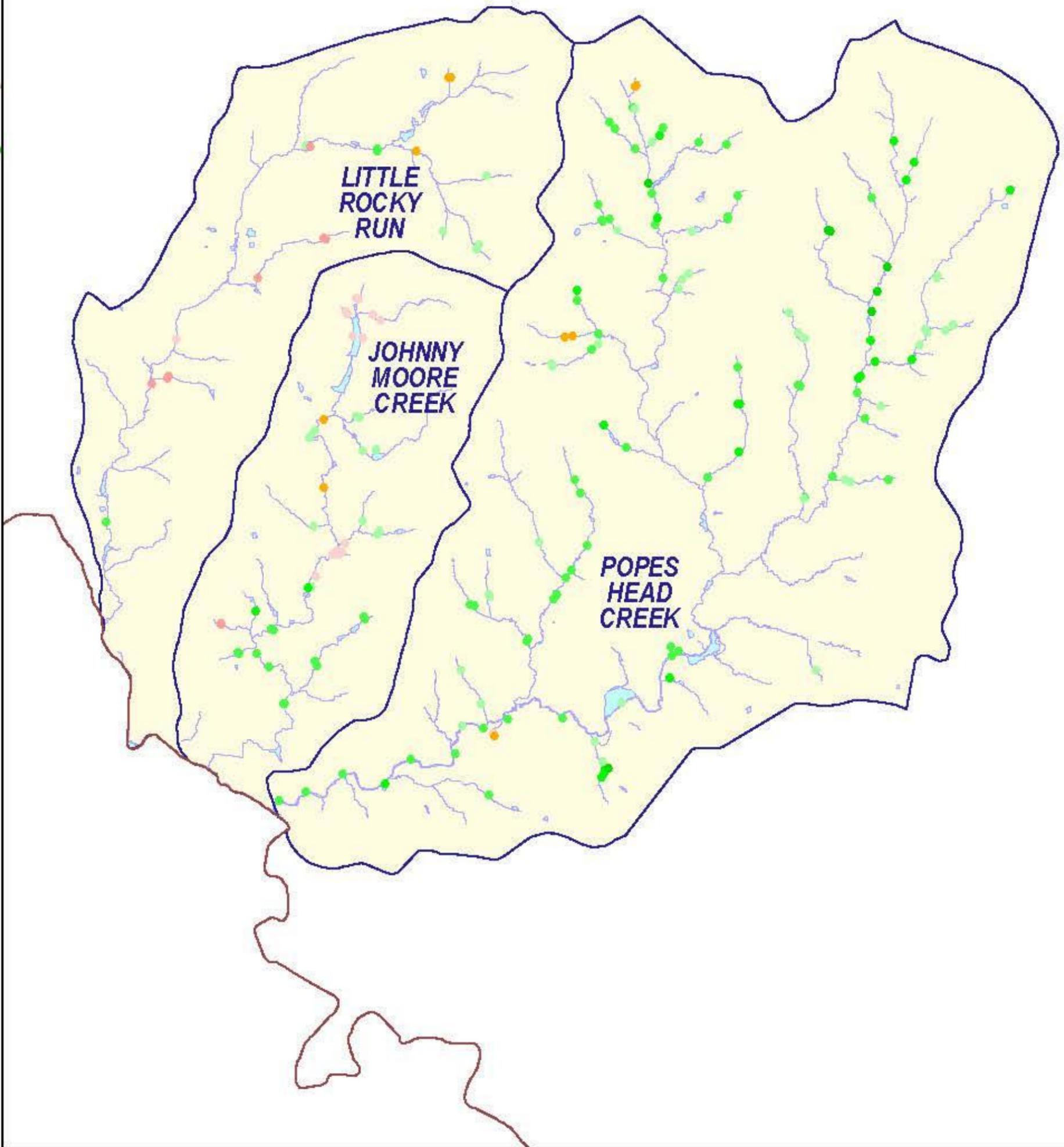
WATERSHED GROUP:  
LOWER BULL RUN



0 2000 4000 6000 8000 Feet

**Figure 3-68**  
**Erosion Impacts**  
**Lower Bull Run Group**  
**Fairfax County Stream Physical Assessment**





Deficient Buffer by Impact Score

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

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

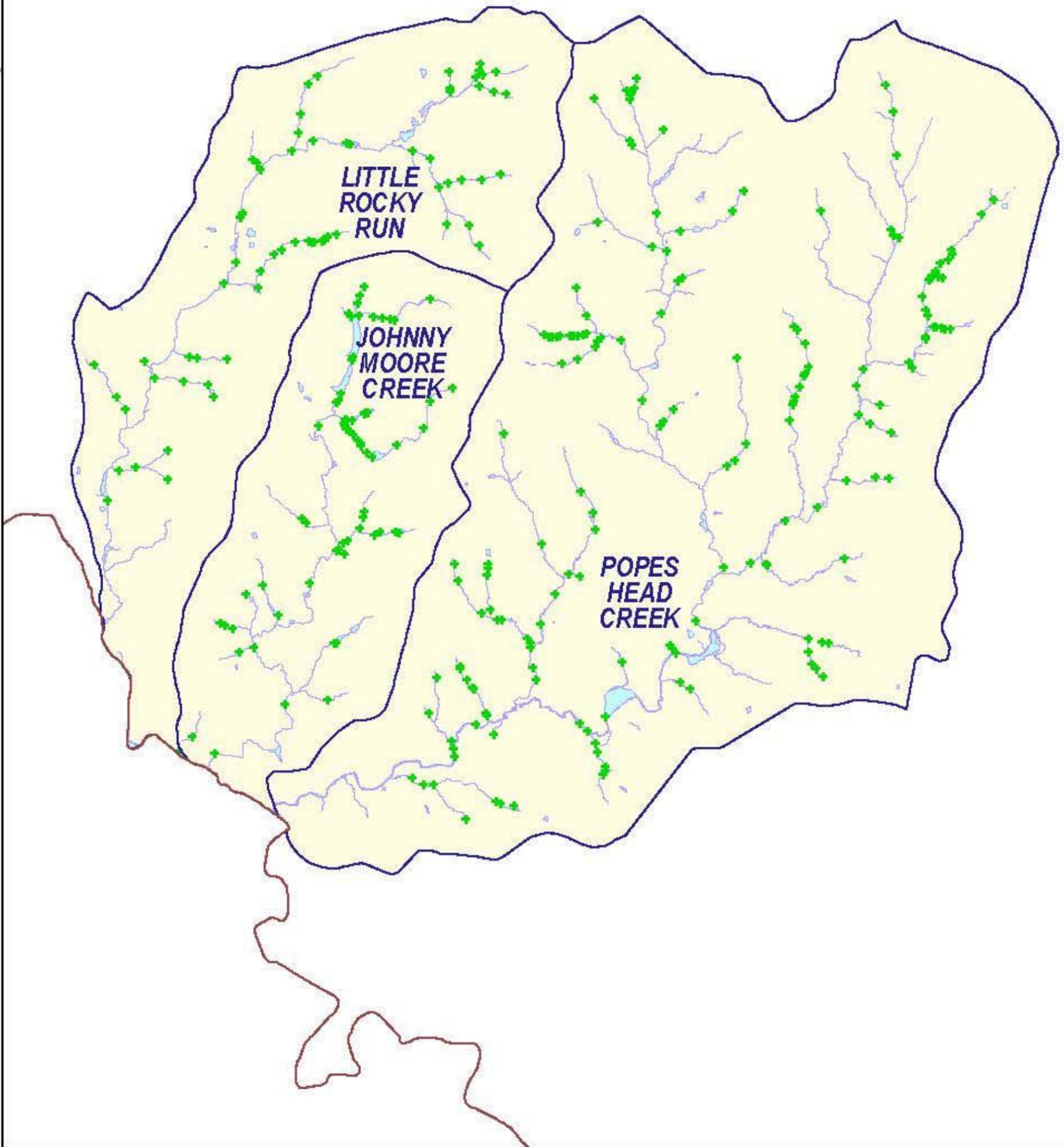
WATERSHED GROUP:  
LOWER BULL RUN



0 2000 4000 6000 8000 Feet

**Figure 3-69**  
**Deficient Buffer Impacts**  
**Lower Bull Run Group**  
**Fairfax County Stream Physical Assessment**





**Inventory Type**

+ Crossing

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

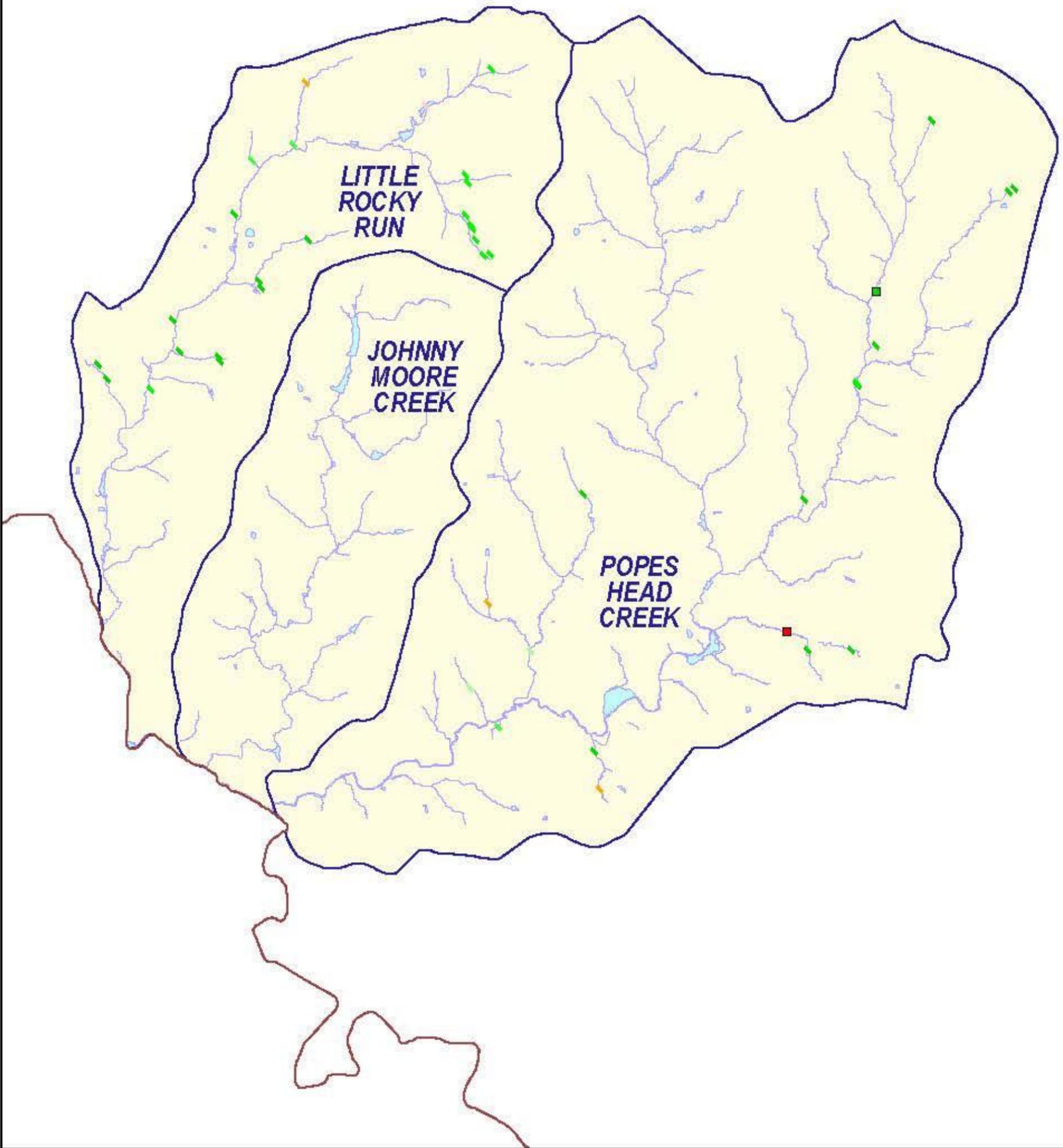
**WATERSHED GROUP:  
LOWER BULL RUN**



0 2000 4000 6000 8000 Feet



**Figure 3-70**  
**Crossings**  
**Lower Bull Run Group**  
**Fairfax County Stream Physical Assessment**



Pipe / Ditch by Impact Score

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

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

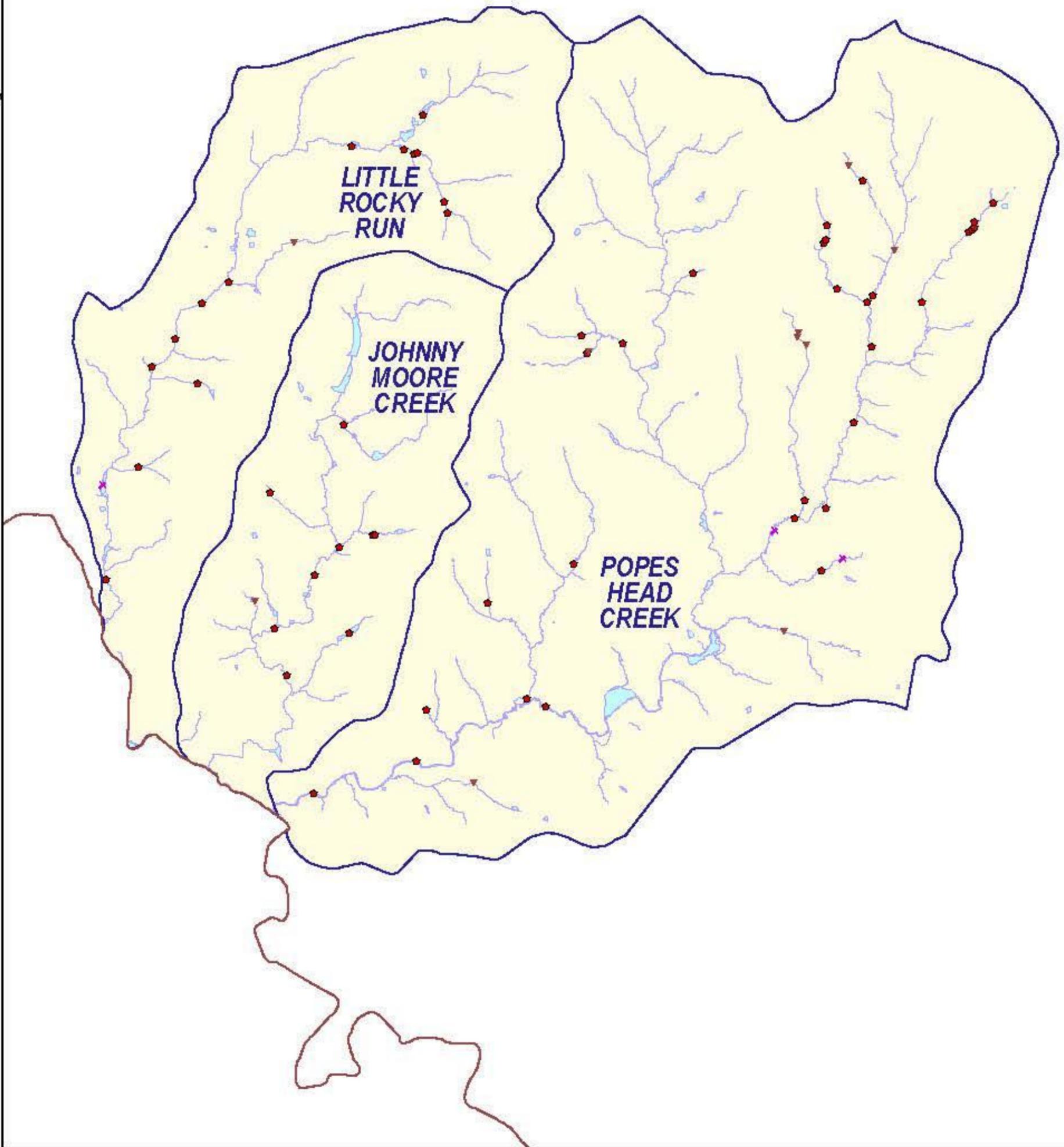
WATERSHED GROUP:  
LOWER BULL RUN



0 2000 4000 6000 8000 Feet

**Figure 3-71**  
**Pipe and Ditch Impacts**  
**Lower Bull Run Group**  
**Fairfax County Stream Physical Assessment**





**Inventory Types**

- ▼ Dump
- ◆ Obstruction
- ✱ Utility

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

**WATERSHED GROUP:  
LOWER BULL RUN**



0 2000 4000 6000 8000 Feet

**Figure 3-72**  
**Dumps, Obstructions, and Utilities**  
**Lower Bull Run Group**  
**Fairfax County Stream Physical Assessment**

## 3.2.11 Upper Occoquan Group Summary

### 3.2.11.1 Old Mill Branch Watershed

**Description.** Old Mill Branch Watershed is a small watershed, with approximately 6 miles of stream assessed. It is located along the middle of the southwestern boundary of the County. The watershed is entirely contained within the County Boundaries, and contains several small tributaries which each drain directly to Bull Run or Occoquan River, and eventually to the Potomac River.

**Habitat.** The habitat assessment results for Old Mill Branch Watershed are summarized by stream in Table 3-49. Habitat scores for each reach are depicted in Figure 3-73. Based on a length weighted habitat score of 99 (Table 3-2), Old Mill Branch Watershed is lower range of quality compared to the rest of the County. Nearly all 6 miles of stream assessed were categorized as “fair.”

**CEM.** Based on the CEM evaluations approximately three quarters of the channels assessed in Old Mill Branch Watershed are in Evolutionary Stage 3 (Table 3-3) with the remainder in Stage 4. Figure 3-74 summarizes the CEM results for Old Mill Branch Watershed.

**Infrastructure.** The infrastructure inventory resulted in 29 inventory points. The most significant problem was related to a crossing, which was given an impact score of 9. The infrastructure inventory results are summarized in Table 3-50. Figures 3-75, 3-76, 3-77, 3-78, and 3-79 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

### 3.2.11.2 Wolf Run Watershed

**Description.** Wolf Run Watershed is a medium-sized watershed, with approximately 16 miles of stream assessed. It is located along the middle of the southwestern boundary of the County. The watershed is entirely contained within the County Boundaries, and drains directly to the Occoquan River, which eventually discharges to the Potomac River.

**Habitat.** The habitat assessment results for Wolf Run Watershed are summarized by stream in Table 3-51. Habitat scores for each reach are depicted in Figure 3-73. Based on a length weighted habitat score of 99 (Table 3-2), Wolf Run Watershed is in the lower range of quality, compared to the rest of the County. Approximately 1.5 miles of stream were categorized as having “poor” habitat conditions, 11 miles as “fair,” and 3 miles as “good.”

**CEM.** Based on the CEM evaluations approximately 98 percent of the channels assessed in Wolf Run Watershed are in Evolutionary Stage 3 (Table 3-3). Figure 3-74 summarizes the CEM results for Wolf Run Watershed.

**Infrastructure.** The infrastructure inventory resulted in 133 inventory points. The most significant problem was related to a head cut, which was given an impact score of 10. The infrastructure inventory results are summarized in Table 3-52. Figures 3-75, 3-76, 3-77, 3-78, and 3-79 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

### 3.2.11.3 Sandy Run Watershed

**Description.** Sandy Run Watershed is a medium-sized watershed, with approximately 20 miles of stream assessed. It is located along the middle of the southwestern boundary of the County. The watershed is entirely contained within the County Boundaries, and drains directly to the Occoquan River, which eventually discharges to the Potomac River.

**Habitat.** The habitat assessment results for Sandy Run Watershed are summarized by stream in Table 3-53. Habitat scores for each reach are depicted in Figure 3-73. Based on a length weighted habitat score of 104 (Table 3-2), Sandy Run Watershed is in the middle range of quality, compared to the rest of the County. Approximately 17 miles of stream were categorized as having “fair” habitat conditions and 3 miles as “fair.”

**CEM.** Based on the CEM evaluations approximately 65 percent of the channels assessed in Sandy Run Watershed are in Evolutionary Stage 3 (Table 3-3), with the remainder in Stage 4. Figure 3-74 summarizes the CEM results for Sandy Run Watershed.

**Infrastructure.** The infrastructure inventory resulted in 171 inventory points. The most significant problem was related to a head cut which was given an impact score of 10. The infrastructure inventory results are summarized in Table 3-54. Figures 3-75, 3-76, 3-77, 3-78, and 3-79 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

### 3.2.11.4 Ryans Dam Watershed

**Description.** Ryans Dam Watershed is a small watershed, with approximately 4 miles of stream assessed. It is located along the middle of the southwestern boundary of the County. The watershed is entirely contained within the County Boundaries, and consists of several small tributaries which each drain directly to the Occoquan River, and eventually to the Potomac River.

**Habitat.** The habitat assessment results for Ryans Dam Watershed are summarized by stream in Table 3-55. Habitat scores for each reach are depicted in Figure 3-73. Based on a length weighted habitat score of 145 (Table 3-2), Ryans Dam Watershed is the highest rated watershed in the County. Nearly 2 miles of stream were categorized as having “good” habitat conditions and 2.5 miles as “excellent.”

**CEM.** Based on the CEM evaluations the channels assessed in Ryans Dam Watershed are nearly evenly divided between Evolutionary Stages 2 and 3 (Table 3-3). Figure 3-74 summarizes the CEM results for Ryans Dam Watershed.

**Infrastructure.** The infrastructure inventory resulted in 10 inventory points. The most significant problem was related to crossing which was given an impact score of 8. The infrastructure inventory results are summarized in Table 3-56. Figures 3-75, 3-76, 3-77, 3-78, and 3-79 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

### 3.2.11.5 Occoquan Watershed

**Description.** Occoquan Watershed is a small watershed, with approximately 6 miles of stream assessed. It is located along the middle of the southern boundary of the County. The

watershed is entirely contained within the County Boundaries, and consists of several small tributaries that drain directly to the Occoquan River.

**Habitat.** The habitat assessment results for Occoquan Watershed are summarized by stream in Table 3-57. Habitat scores for each reach are depicted in Figure 3-73. Based on a length weighted habitat score of 117 (Table 3-2), Occoquan Watershed is in the upper middle range of quality, compared to the rest of the County. Approximately 3 miles of stream were categorized as having “fair” habitat conditions and 3 miles as “good.”

**CEM.** Based on the CEM evaluations approximately 80 percent of the channels assessed in Occoquan Watershed are in Evolutionary Stage 3 (Table 3-3), with the remainder of the watershed in Stages 2 and 4. Figure 3-74 summarizes the CEM results for Occoquan Watershed.

**Infrastructure.** The infrastructure inventory resulted in 40 inventory points. The most significant problems were related to two erosional areas and a head cut, which were given impact scores of 10. The infrastructure inventory results are summarized in Table 3-58. Figures 3-75, 3-76, 3-77, 3-78, and 3-79 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

**TABLE 3-49**  
Habitat Assessment Summary for Old Mill Branch Watershed  
*Fairfax County Stream Physical Assessment*

Stream	Linear Feet (Percent) of Stream					Total
	Very Poor	Poor	Fair	Good	Excellent	
Old Mill Branch	0 (0.00)	0 (0.00)	8,755 (100.00)	0 (0.00)	0 (0.00)	8,755
Tributary to Bull Run	0 (0.00)	1,586 (7.47)	17,734 (83.47)	1,927 (9.07)	0 (0.00)	21,247
Tributary to Old Mill Branch	0 (0.00)	0 (0.00)	1,627 (100.00)	0 (0.00)	0 (0.00)	1,627
<b>Watershed Total</b>	<b>0 (0.00)</b>	<b>1,586 (5.02)</b>	<b>28,116 (88.89)</b>	<b>1,927 (6.09)</b>	<b>0 (0.00)</b>	<b>31,629</b>

**TABLE 3-50**  
Infrastructure Assessment Summary for Old Mill Branch Watershed  
*Fairfax County Stream Physical Assessment*

<b>Impact Score</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>&gt;10</b>	<b>Total</b>
Deficient Buffers	0	0	0	2	2	3	1	1	0	0	0	N/A	9
Crossings	9	2	0	1	1	0	1	1	0	1	0	N/A	16
Ditches and Pipes	1	0	0	0	0	1	0	0	0	0	0	N/A	2
Erosion	0	0	0	0	0	0	1	1	0	0	0	N/A	2
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	0	0	0	0	0	0	0	0
<b>Total</b>	<b>10</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>29</b>

**TABLE 3-51**  
Habitat Assessment Summary for Wolf Run Watershed  
*Fairfax County Stream Physical Assessment*

<b>Stream</b>	<b>Linear Feet (Percent) of Stream</b>					<b>Total</b>
	<b>Very Poor</b>	<b>Poor</b>	<b>Fair</b>	<b>Good</b>	<b>Excellent</b>	
Maple Branch	0 (0.00)	0 (0.00)	7,679 (100.00)	0 (0.00)	0 (0.00)	7,679
Swift Run	0 (0.00)	0 (0.00)	6,540 (100.00)	0 (0.00)	0 (0.00)	6,540
Tributary to Wolf Run	3,430 (9.45)	8,042 (22.15)	24,841 (68.41)	0 (0.00)	0 (0.00)	36,313
Wolf Run	0 (0.00)	0 (0.00)	20,695 (60.06)	13,761 (39.94)	0 (0.00)	34,457
<b>Watershed Total</b>	<b>3,430 (4.04)</b>	<b>8,042 (9.46)</b>	<b>59,756 (70.31)</b>	<b>13,761 (16.19)</b>	<b>0 (0.00)</b>	<b>84,989</b>

**TABLE 3-52**  
Infrastructure Assessment Summary for Wolf Run Watershed  
*Fairfax County Stream Physical Assessment*

<b>Impact Score</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>&gt;10</b>	<b>Total</b>
Deficient Buffers	0	1	7	24	17	8	0	0	0	0	0	N/A	57
Crossings	33	11	11	6	4	0	0	0	0	0	0	N/A	65
Ditches and Pipes	4	0	1	1	0	0	0	0	0	0	0	N/A	6
Erosion	0	0	0	0	1	0	0	0	0	0	0	N/A	1
Head Cut	0	0	0	1	0	0	0	0	0	0	1	N/A	2
Obstruction	0	0	0	0	2	0	0	0	0	0	0	N/A	2
Utility	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>37</b>	<b>12</b>	<b>19</b>	<b>32</b>	<b>24</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>133</b>

**TABLE 3-53**  
Habitat Assessment Summary for Sandy Run Watershed  
*Fairfax County Stream Physical Assessment*

<b>Stream</b>	<b>Linear Feet (Percent) of Stream</b>					<b>Total</b>
	<b>Very Poor</b>	<b>Poor</b>	<b>Fair</b>	<b>Good</b>	<b>Excellent</b>	
Sandy Run	0 (0.00)	0 (0.00)	5,407 (28.88)	13,315 (71.12)	0 (0.00)	18,722
Tributary to Occoquan River	0 (0.00)	0 (0.00)	12,270 (90.83)	1,238 (9.17)	0 (0.00)	13,509
Tributary to Sandy Run	0 (0.00)	4,734 (6.28)	70,602 (93.72)	0 (0.00)	0 (0.00)	75,337
<b>Watershed Total</b>	<b>0 (0.00)</b>	<b>4,734 (4.40)</b>	<b>88,280 (82.07)</b>	<b>14,553 (13.53)</b>	<b>0 (0.00)</b>	<b>107,567</b>

**TABLE 3-54**  
 Infrastructure Assessment Summary for Sandy Run Watershed  
 Fairfax County Stream Physical Assessment

<b>Impact Score</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>&gt;10</b>	<b>Total</b>
Deficient Buffers	1	5	26	15	4	2	0	0	0	0	0	N/A	53
Crossings	24	42	16	11	2	1	0	1	0	0	0	N/A	97
Ditches and Pipes	1	1	0	1	0	0	0	0	0	0	0	N/A	3
Erosion	0	0	1	1	2	1	1	0	0	0	0	N/A	6
Head Cut	0	0	0	0	1	0	0	0	0	0	1	N/A	2
Obstruction	0	1	4	2	1	1	0	0	0	0	0	N/A	9
Utility	0	0	0	0	1	0	0	0	0	0	0	0	1
<b>Total</b>	<b>26</b>	<b>49</b>	<b>47</b>	<b>30</b>	<b>11</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>171</b>

**TABLE 3-55**  
 Habitat Assessment Summary for Ryans Dam Watershed  
 Fairfax County Stream Physical Assessment

<b>Stream</b>	<b>Linear Feet (Percent) of Stream</b>					<b>Total</b>
	<b>Very Poor</b>	<b>Poor</b>	<b>Fair</b>	<b>Good</b>	<b>Excellent</b>	
Stillwell Run	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	7,561 (100.00)	7,561
Tributary to Occoquan River	0 (0.00)	0 (0.00)	0 (0.00)	9,326 (62.47)	5,603 (37.53)	14,929
<b>Watershed Total</b>	<b>0 (0.00)</b>	<b>0 (0.00)</b>	<b>0 (0.00)</b>	<b>9,326 (41.47)</b>	<b>13,164 (58.53)</b>	<b>22,490</b>

**TABLE 3-56**  
Infrastructure Assessment Summary for Ryans Dam Watershed  
*Fairfax County Stream Physical Assessment*

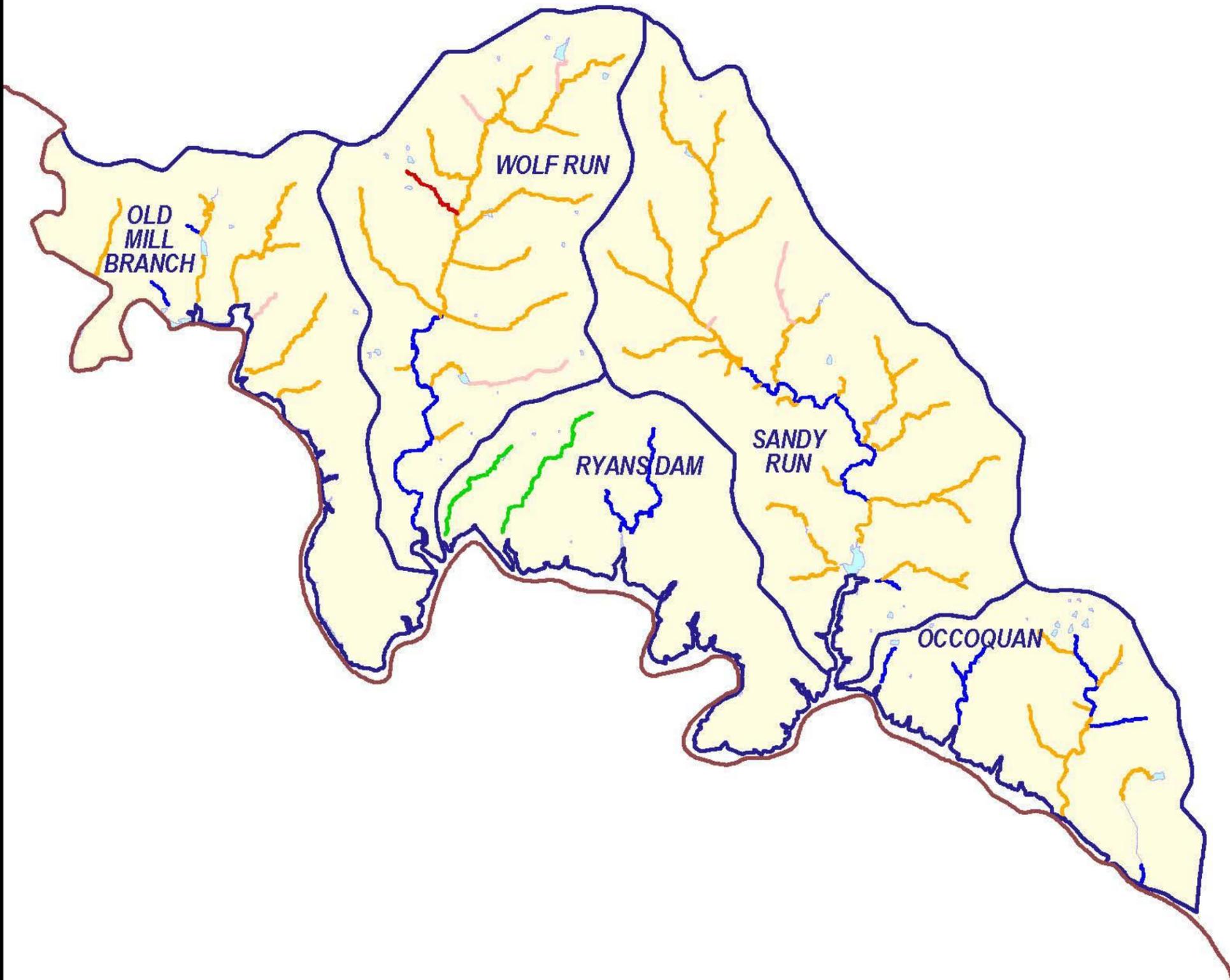
<b>Impact Score</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>&gt;10</b>	<b>Total</b>
Deficient Buffers	0	0	0	0	0	0	0	1	0	0	0	N/A	1
Crossings	0	0	3	3	1	0	0	0	1	0	0	N/A	8
Ditches and Pipes	0	1	0	0	0	0	0	0	0	0	0	N/A	1
Erosion	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>

**TABLE 3-57**  
Habitat Assessment Summary for Occoquan Watershed  
*Fairfax County Stream Physical Assessment*

<b>Stream</b>	<b>Linear Feet (Percent) of Stream</b>					<b>Total</b>
	<b>Very Poor</b>	<b>Poor</b>	<b>Fair</b>	<b>Good</b>	<b>Excellent</b>	
Elk Horn Run	0 (0.00)	0 (0.00)	14,002 (75.51)	4,542 (24.49)	0 (0.00)	18,544
Little Occoquan Creek	0 (0.00)	0 (0.00)	2,874 (74.71)	973 (25.29)	0 (0.00)	3,846
Tributary to Elk Horn Run	0 (0.00)	0 (0.00)	0 (0.00)	2,742 (100.00)	0 (0.00)	2,742
Tributary to Occoquan River	0 (0.00)	0 (0.00)	0 (0.00)	6,796 (100.00)	0 (0.00)	6,796
<b>Watershed Total</b>	<b>0 (0.00)</b>	<b>0 (0.00)</b>	<b>16,876 (52.85)</b>	<b>15,053 (47.15)</b>	<b>0 (0.00)</b>	<b>31,929</b>

**TABLE 3-58**  
 Infrastructure Assessment Summary for Occoquan Watershed  
*Fairfax County Stream Physical Assessment*

<b>Impact Score</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>&gt;10</b>	<b>Total</b>
Deficient Buffers	0	0	0	3	5	0	0	0	0	0	0	N/A	8
Crossings	9	2	2	2	1	0	0	0	0	0	0	N/A	16
Ditches and Pipes	0	5	0	0	0	0	0	0	0	0	0	N/A	5
Erosion	0	0	0	0	0	0	0	0	0	0	2	N/A	2
Head Cut	0	0	0	1	1	0	0	0	0	0	1	N/A	3
Obstruction	0	0	3	1	1	0	0	1	0	0	0	N/A	6
Utility	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>9</b>	<b>7</b>	<b>5</b>	<b>7</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>40</b>



-  Fairfax County Boundary
- Habitat Rating**
-  Excellent
-  Good
-  Fair
-  Poor
-  Very Poor
-  No Habitat Assessment
-  Lakes and Ponds
-  Watersheds

**WATERSHED GROUP:  
UPPER OCCOQUAN**



0 2000 4000 6000 8000 Feet




**Figure 3-73  
Habitat Assessment  
Upper Occoquan Group  
Fairfax County Stream Physical Assessment**





**Inventory Types**

- Cross Section
- Head Cut

**CEM Stage**

- Not Assigned
- 1
- 2
- 3
- 4
- 5

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

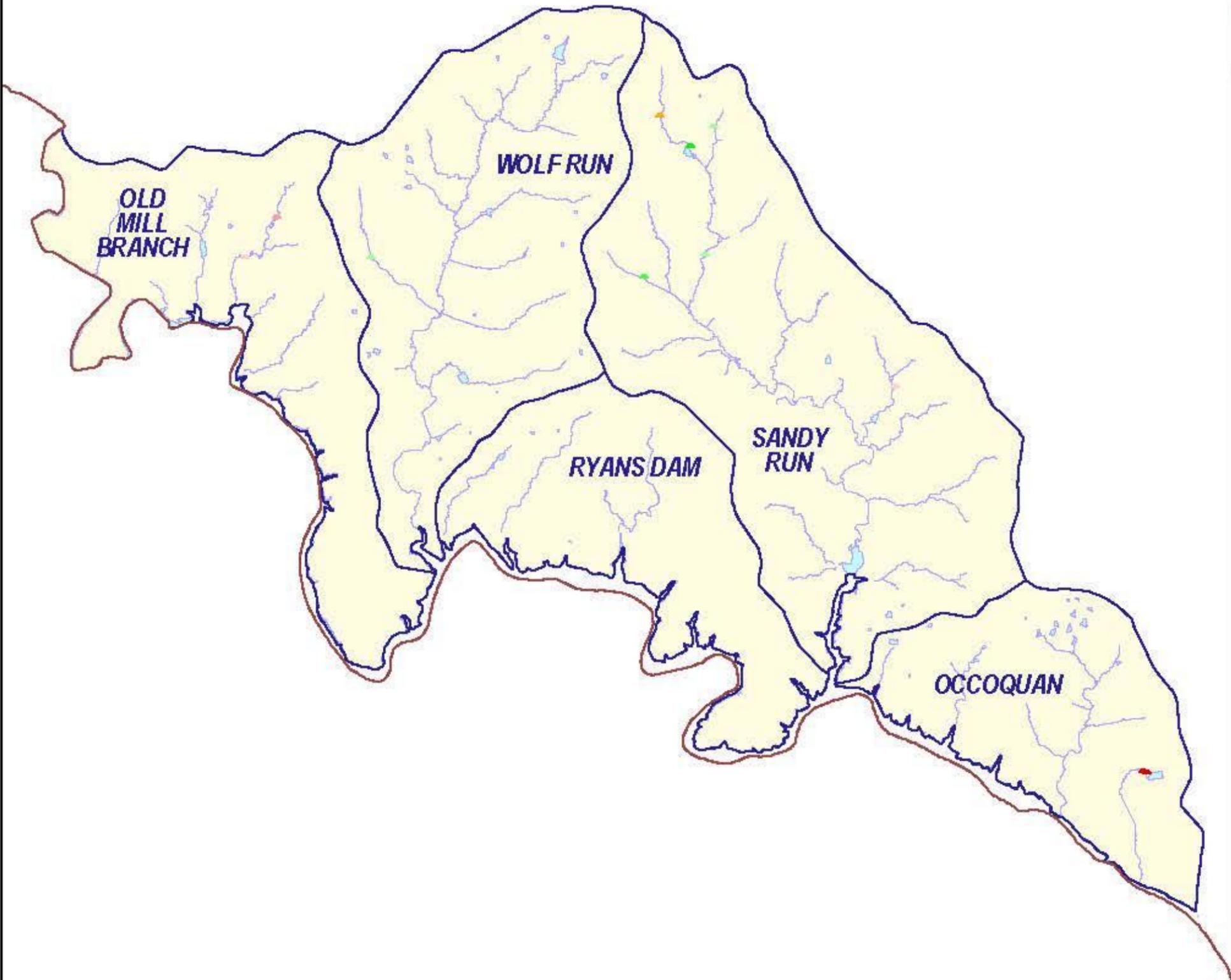
**WATERSHED GROUP:  
UPPER OCCOQUAN**



0 2000 4000 6000 8000 Feet

**Figure 3-74**  
**CEM Stages**  
**Upper Occoquan Group**  
**Fairfax County Stream Physical Assessment**





Erosion by Impact Score

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

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

WATERSHED GROUP:  
UPPER OCCOQUAN

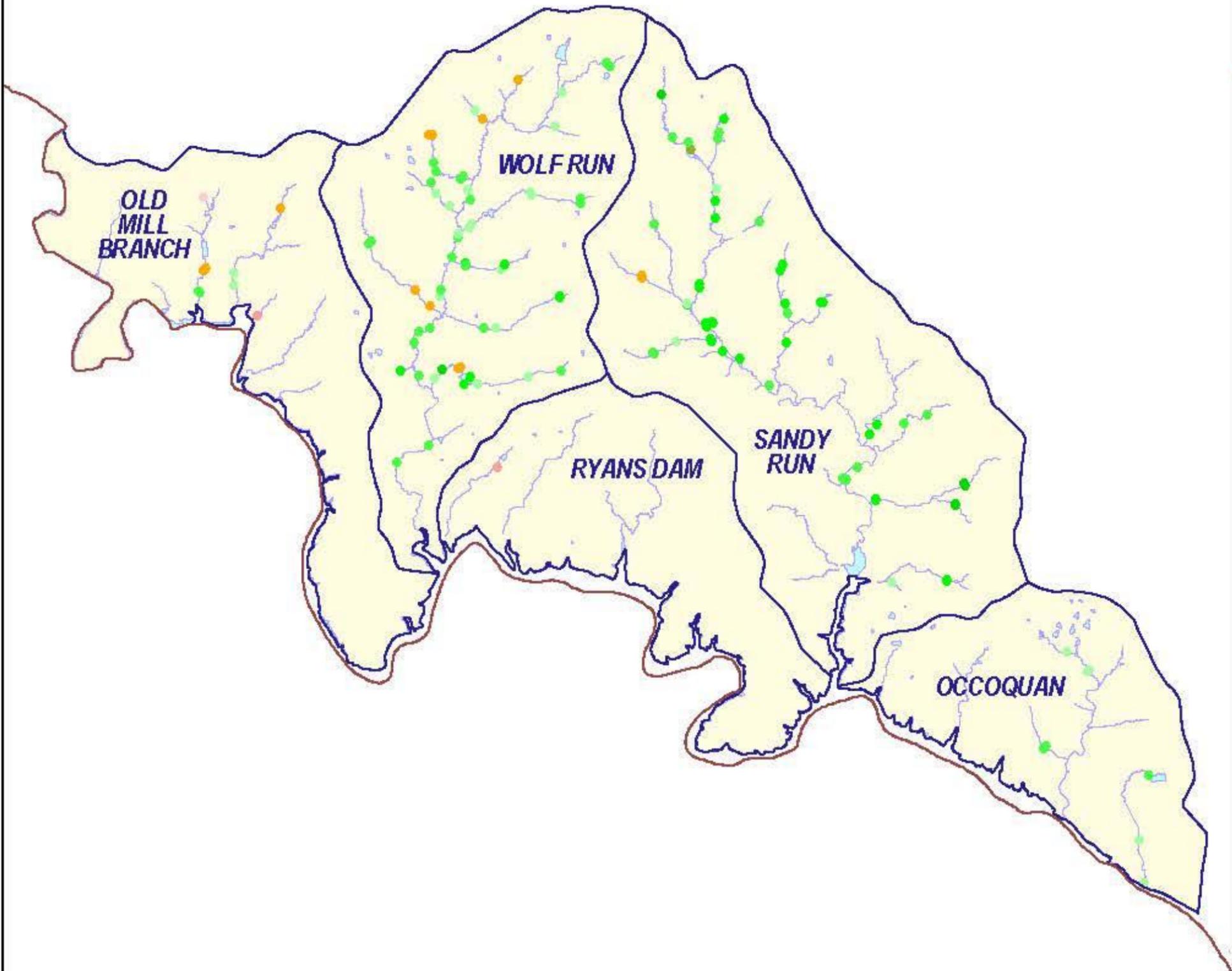


0 2000 4000 6000 8000 Feet



**Figure 3-75**  
**Erosion Impacts**  
**Upper Occoquan Group**  
**Fairfax County Stream Physical Assessment**





Deficient Buffer by Impact Score

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

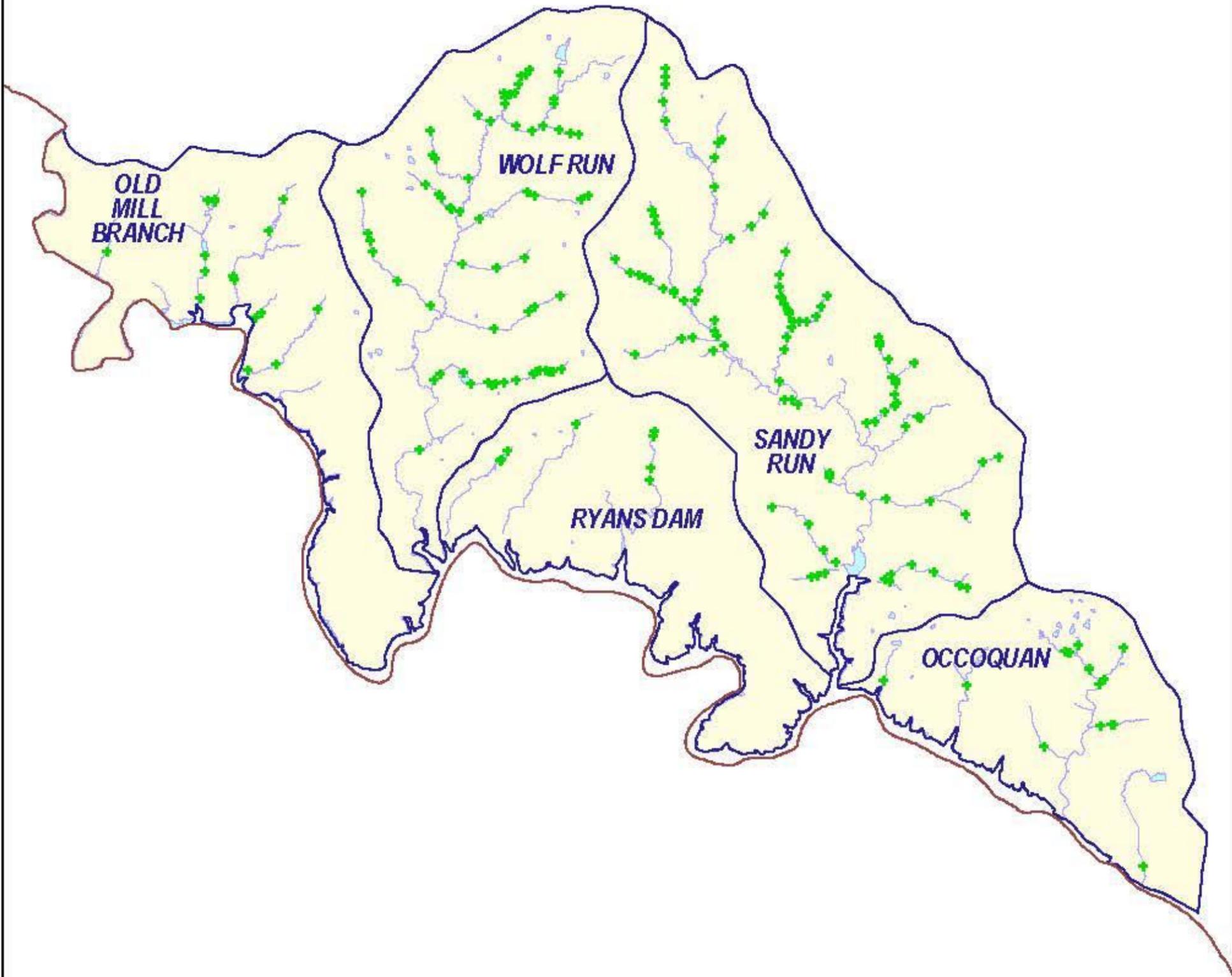
- ▭ Fairfax County Boundary
- ▭ Lakes and Ponds
- ▭ Streams
- ▭ Watersheds

WATERSHED GROUP:  
UPPER OCCOQUAN



0 2000 4000 6000 8000 Feet

**Figure 3-76**  
**Deficient Buffer Impacts**  
**Upper Occoquan Group**  
**Fairfax County Stream Physical Assessment**



**Inventory Type**

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

**WATERSHED GROUP:  
UPPER OCCOQUAN**

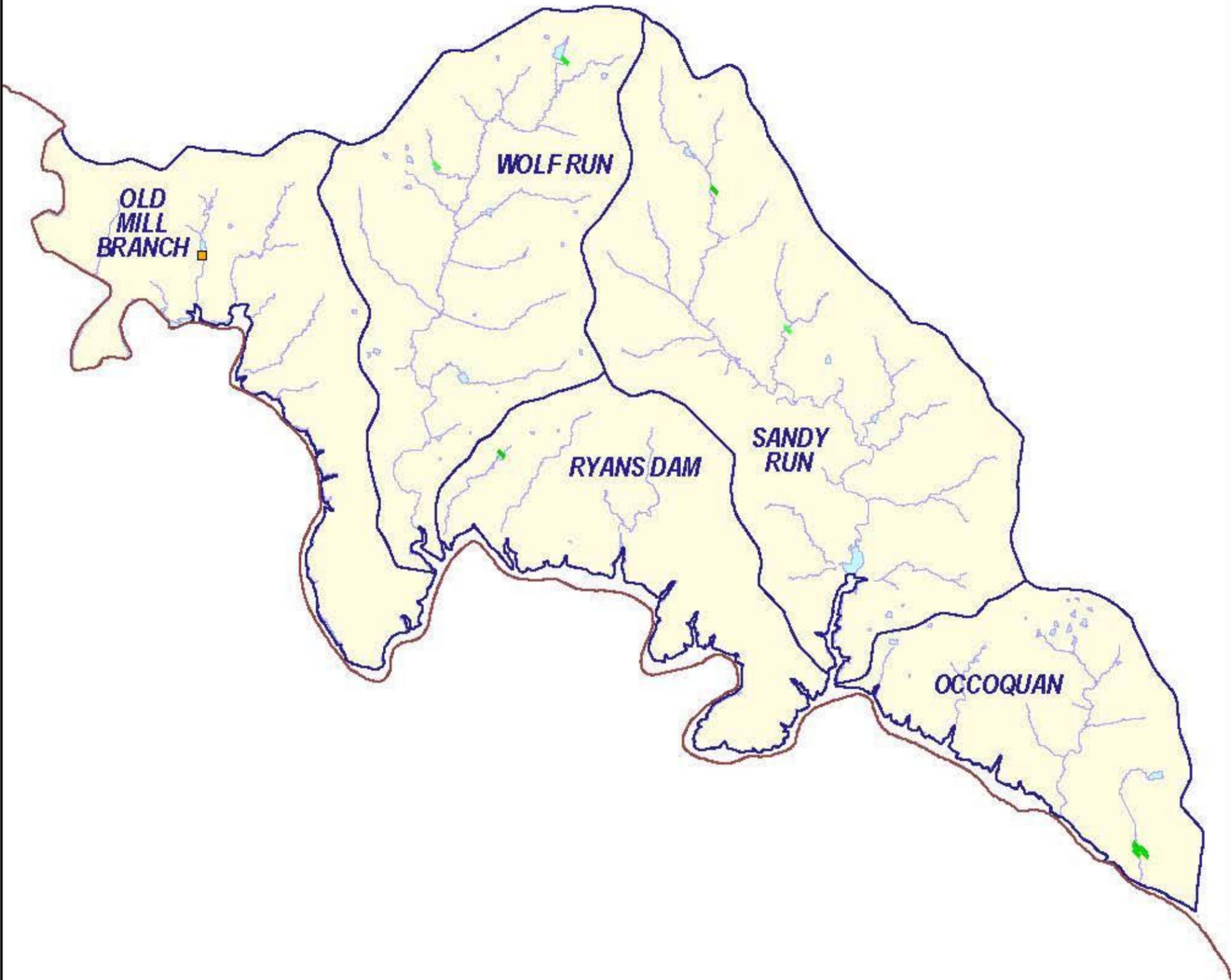


0 2000 4000 6000 8000 Feet



**Figure 3-77**  
**Crossings**  
**Upper Occoquan Group**  
**Fairfax County Stream Physical Assessment**





Pipe / Ditch by Impact Score

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

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

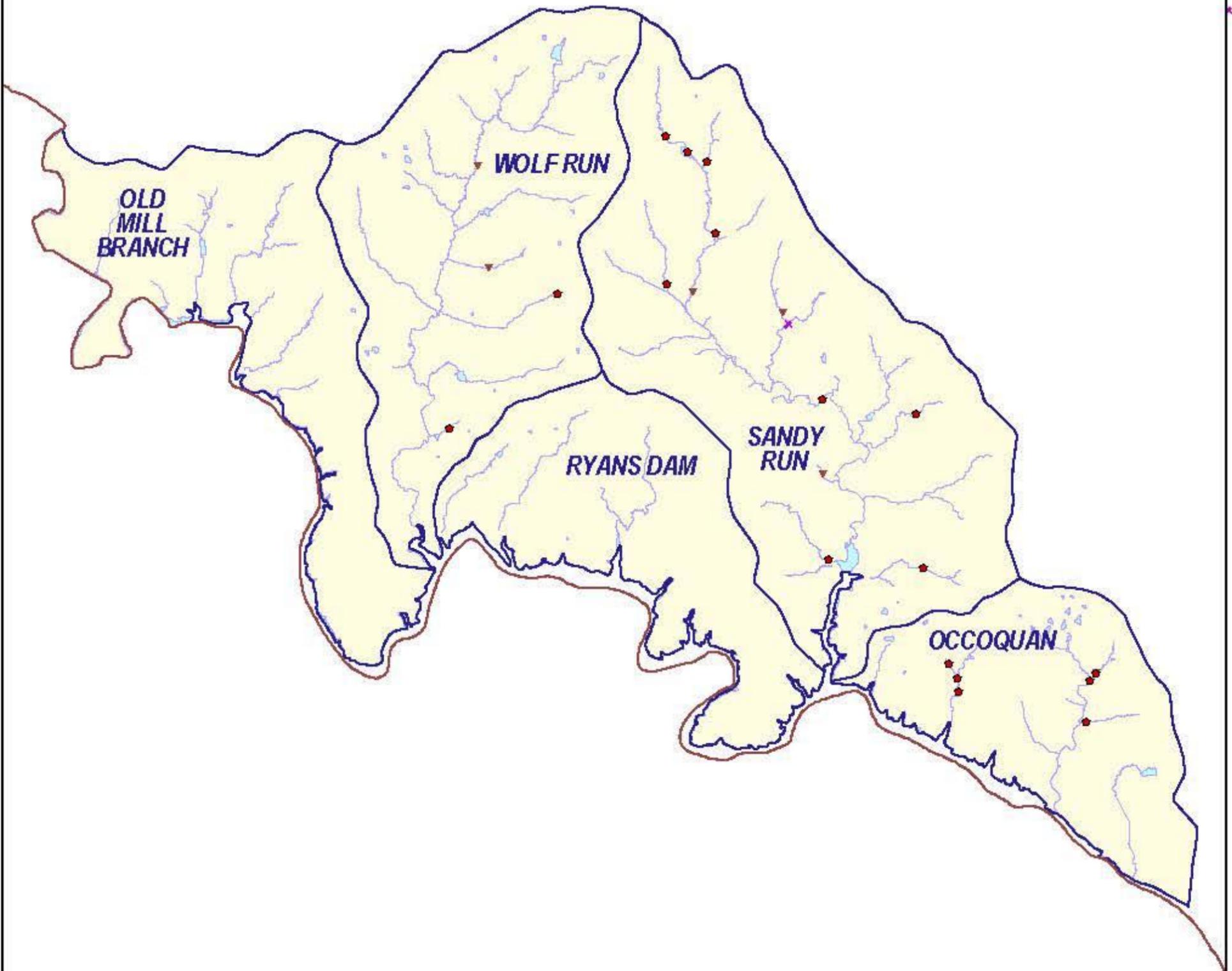
WATERSHED GROUP:  
UPPER OCCOQUAN



0 2000 4000 6000 8000 Feet

**Figure 3-78**  
**Pipe and Ditch Impacts**  
**Upper Occoquan Group**  
**Fairfax County Stream Physical Assessment**





**Inventory Types**

- ▼ Dump
- ◆ Obstruction
- \* Utility

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

**WATERSHED GROUP:  
UPPER OCCOQUAN**



0 2000 4000 6000 8000 Feet

**Figure 3-79**  
**Dumps, Obstructions, and Utilities**  
**Upper Occoquan Group**  
**Fairfax County Stream Physical Assessment**





## 3.2.12 Lower Occoquan Group Summary

### 3.2.12.1 Mill Branch Watershed

**Description.** Mill Branch Watershed is a medium-sized watershed, with approximately 14 miles of stream assessed. It is located along the middle of the southern boundary of the County. The watershed is entirely contained within the County Boundaries, and drains to the Occoquan River, and eventually discharges to the Potomac River.

**Habitat.** The habitat assessment results for Mill Branch Watershed are summarized by stream in Table 3-59. Habitat scores for each reach are depicted in Figure 3-80. Based on a length weighted habitat score of 106 (Table 3-2), Mill Branch Watershed is in the middle range of quality, compared to the rest of the County. Approximately 6 miles of stream were categorized as having “poor” habitat conditions, 3 miles as “fair,” 3 miles as “good,” and 3 miles as “excellent.”

**CEM.** Based on the CEM evaluations approximately three quarters of the channels assessed in Mill Branch Watershed are in Evolutionary Stage 3 (Table 3-3), with the remainder of the watershed in Stage 2. Figure 3-81 summarizes the CEM results for Mill Branch Watershed.

**Infrastructure.** The infrastructure inventory resulted in 98 inventory points. The most significant problems were related to a utility line, which was given an impact score of 20, and a head cut which was given a score of 10. The infrastructure inventory results are summarized in Table 3-60. Figures 3-82, 3-83, 3-84, 3-85, and 3-86 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

### 3.2.12.2 Kane Creek Watershed

**Description.** Kane Creek Watershed is a small watershed, with approximately 7 miles of stream assessed. It is located at the southern most end of the County. The watershed is entirely contained within the County Boundaries, and drains to Belmont Bay, and the Potomac River.

**Habitat.** The habitat assessment results for Kane Creek Watershed are summarized by stream in Table 3-61. Habitat scores for each reach are depicted in Figure 3-80. Based on a length weighted habitat score of 128 (Table 3-2), Kane Creek Watershed is in the upper range of quality, compared to the rest of the County. Approximately 6 miles of stream were categorized as having “good” habitat and just over 1 mile as “excellent.”

**CEM.** Based on the CEM evaluations approximately two thirds of the channels assessed in Kane Creek Watershed are in Evolutionary Stage 2 (Table 3-3), with the remainder of the watershed in Stage 3. Figure 3-81 summarizes the CEM results for Kane Creek Watershed.

**Infrastructure.** The infrastructure inventory resulted in 13 inventory points. The most significant problem was related to a crossing, which was given an impact score of 5. The infrastructure inventory results are summarized in Table 3-62. Figures 3-82, 3-83, 3-84, 3-85, and 3-86 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

### 3.2.12.3 High Point Watershed

**Description.** High Point Watershed is a small watershed, with approximately 3 miles of stream assessed. It is located at the southern most end of the County. The watershed is entirely contained within the County Boundaries, primarily draining the Mason Neck State Park and National Wildlife Refuge. The channels in the watershed consist of several small tributaries, which each drain directly to the Potomac River.

**Habitat.** The habitat assessment results for High Point Watershed are summarized by stream in Table 3-63. Habitat scores for each reach are depicted in Figure 3-80. Based on a length weighted habitat score of 124 (Table 3-2), High Point Watershed is in the upper range of quality, compared to the rest of the County. Nearly all 3 miles of stream were categorized as having “good” habitat conditions.

**CEM.** Based on the CEM evaluations all of the channels assessed in High Point Watershed are in Evolutionary Stage 2 (Table 3-3). Figure 3-81 summarizes the CEM results for High Point Watershed.

**Infrastructure.** The infrastructure inventory resulted in 6 inventory points. The most significant problems were related to two deficient buffers, which were given impact scores of 5. The infrastructure inventory results are summarized in Table 3-64. Figures 3-82, 3-83, 3-84, 3-85, and 3-86 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

**TABLE 3-59**  
Habitat Assessment Summary for Mill Branch Watershed  
*Fairfax County Stream Physical Assessment*

Stream	Linear Feet (Percent) of Stream					Total
	Very Poor	Poor	Fair	Good	Excellent	
Giles Run	1,065 (2.20)	25,567 (52.92)	9,245 (19.14)	3,352 (6.94)	9,087 (18.81)	48,316
Mills Branch	0 (0.00)	0 (0.00)	4,376 (88.06)	593 (11.94)	0 (0.00)	4,970
South Branch	0 (0.00)	0 (0.00)	0 (0.00)	6,403 (100.00)	0 (0.00)	6,403
Tributary to Occoquan River	0 (0.00)	4,951 (31.76)	2,655 (17.03)	3,132 (20.09)	4,850 (31.11)	15,588
<b>Watershed Total</b>	<b>1,065 (1.41)</b>	<b>30,518 (40.54)</b>	<b>16,276 (21.62)</b>	<b>13,480 (17.91)</b>	<b>13,937 (18.51)</b>	<b>75,276</b>

**TABLE 3-60**  
Infrastructure Assessment Summary for Mill Branch 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	9	4	13	7	3	0	1	0	0	N/A	37
Crossings	34	0	1	0	0	0	0	1	0	0	0	N/A	36
Ditches and Pipes	14	1	0	0	0	0	0	0	0	0	0	N/A	15
Erosion	0	0	0	0	0	0	1	0	0	0	0	N/A	1
Head Cut	0	0	1	0	2	0	0	0	0	0	1	N/A	4
Obstruction	0	1	1	1	0	0	0	0	0	0	0	N/A	3
Utility	1	0	0	0	0	0	0	0	0	0	0	0	2
<b>Total</b>	<b>49</b>	<b>2</b>	<b>12</b>	<b>5</b>	<b>15</b>	<b>7</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>98</b>

**TABLE 3-61**  
 Habitat Assessment Summary for Kane Creek Watershed  
*Fairfax County Stream Physical Assessment*

Stream	Linear Feet (Percent) of Stream					Total
	Very Poor	Poor	Fair	Good	Excellent	
Kane Creek	0 (0.00)	0 (0.00)	2,072 (10.48)	10,666 (53.94)	7,034 (35.58)	19,772
Thompson Creek	0 (0.00)	0 (0.00)	0 (0.00)	15,493 (100.00)	0 (0.00)	15,493
Tributary to Potomac River	0 (0.00)	0 (0.00)	0 (0.00)	1,300 (100.00)	0 (0.00)	1,300
Tributary to Thompson Creek	0 (0.00)	0 (0.00)	0 (0.00)	1,970 (100.00)	0 (0.00)	1,970
<b>Watershed Total</b>	<b>0 (0.00)</b>	<b>0 (0.00)</b>	<b>2,072 (5.38)</b>	<b>29,429 (76.37)</b>	<b>7,034 (18.25)</b>	<b>38,535</b>

**TABLE 3-62**  
 Infrastructure Assessment Summary for Kane 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	1	0	1	0	0	0	0	0	N/A	2
Crossings	9	0	0	0	0	0	0	1	0	0	0	N/A	10
Ditches and Pipes	0	0	0	0	0	0	0	0	0	0	0	N/A	0
Erosion	0	0	0	0	0	0	0	0	0	0	0	N/A	0
Head Cut	0	0	0	1	0	0	0	0	0	0	0	N/A	1
Obstruction	0	0	0	0	0	0	0	0	0	0	0	N/A	0
Utility	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>

**TABLE 3-63**  
Habitat Assessment Summary for High Point Watershed  
*Fairfax County Stream Physical Assessment*

Stream	Linear Feet (Percent) of Stream					Total
	Very Poor	Poor	Fair	Good	Excellent	
Tributary to Potomac River	0 (0.00)	0 (0.00)	638 (4.02)	15,218 (95.98)	0 (0.00)	15,856
<b>Watershed Total</b>	<b>0 (0.00)</b>	<b>0 (0.00)</b>	<b>638 (4.02)</b>	<b>15,218 (95.98)</b>	<b>0 (0.00)</b>	<b>15,856</b>

**TABLE 3-64**  
Infrastructure Assessment Summary for High Point 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	2	0	0	0	0	0	N/A	2
Crossings	3	0	0	1	0	0	0	0	0	0	0	N/A	4
Ditches and Pipes	0	0	0	0	0	0	0	0	0	0	0	N/A	0
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	0	0	0	0	0	0	0	0
<b>Total</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>



-  Fairfax County Boundary
- Habitat Rating**
-  Excellent
-  Good
-  Fair
-  Poor
-  Very Poor
-  No Habitat Assessment
-  Lakes and Ponds
-  Watersheds

**WATERSHED GROUP:  
LOWER OCCOQUAN**

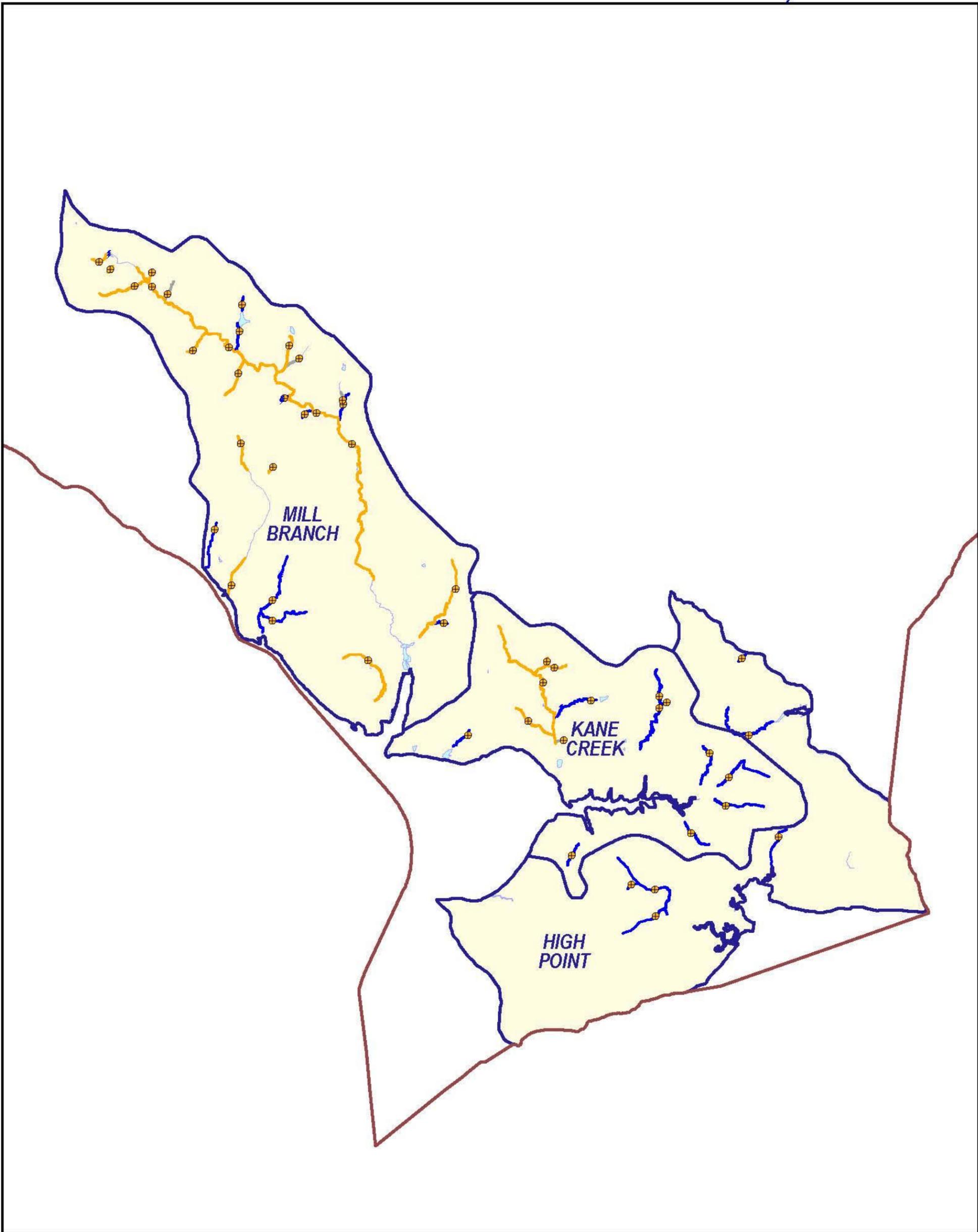


0 2000 4000 6000 8000 Feet




**Figure 3-80**  
**Habitat Assessment**  
**Lower Occoquan Group**  
**Fairfax County Stream Physical Assessment**





**Inventory Types**

● Cross Section  
 ⚡ Head Cut

**CEM Stage**

- ⚡ Not Assigned
- 1
- 2
- 3
- 4
- 5

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

**WATERSHED GROUP:  
 LOWER OCCOQUAN**



0 2000 4000 6000 8000 Feet



**Figure 3-81  
 CEM Stages  
 Lower Occoquan Group  
 Fairfax County Stream Physical Assessment**





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 OCCOQUAN

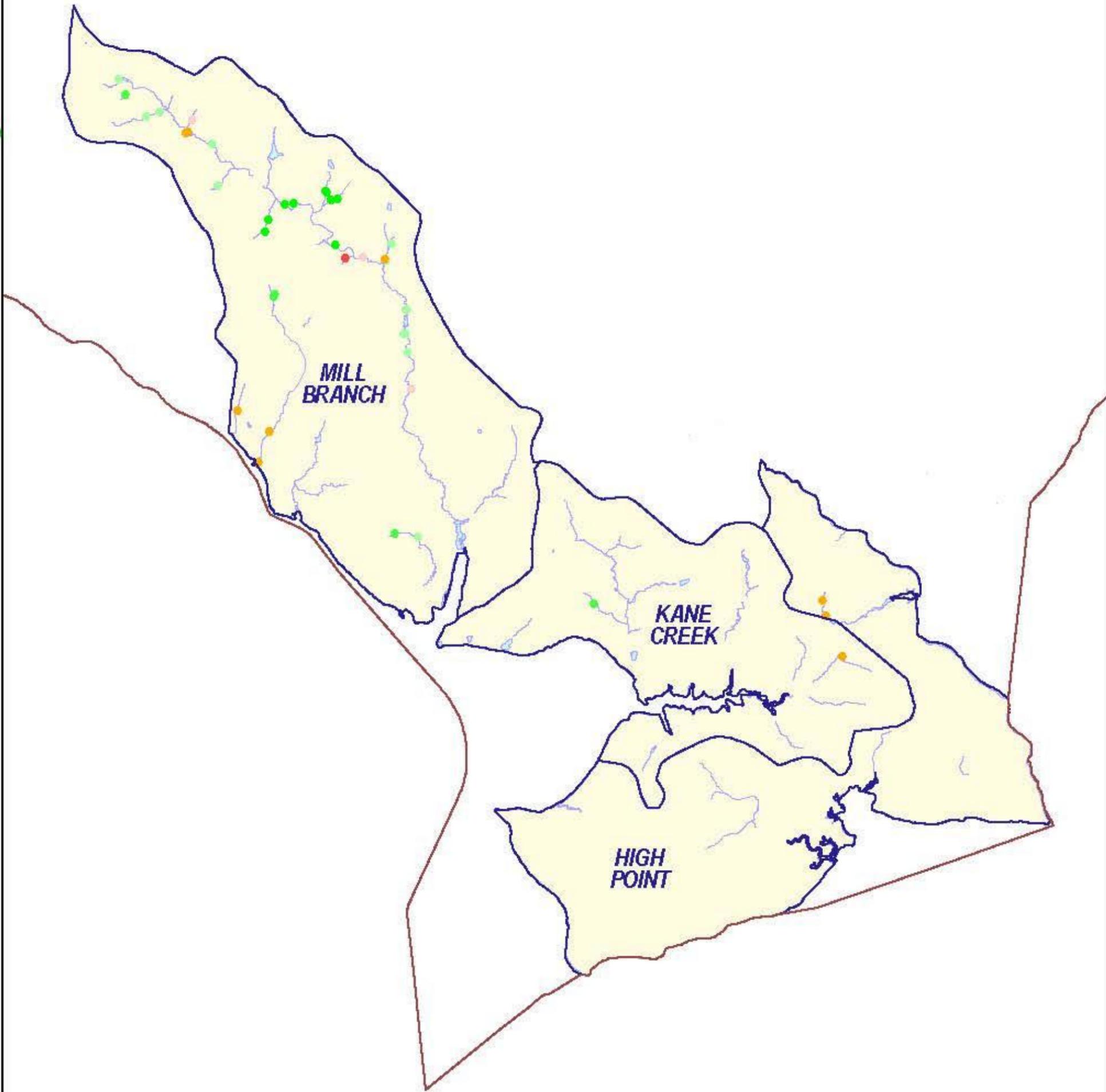


0 2000 4000 6000 8000 Feet



**Figure 3-82**  
**Erosion Impacts**  
**Lower Occoquan Group**  
**Fairfax County Stream Physical Assessment**





Deficient Buffer by Impact Score

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

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

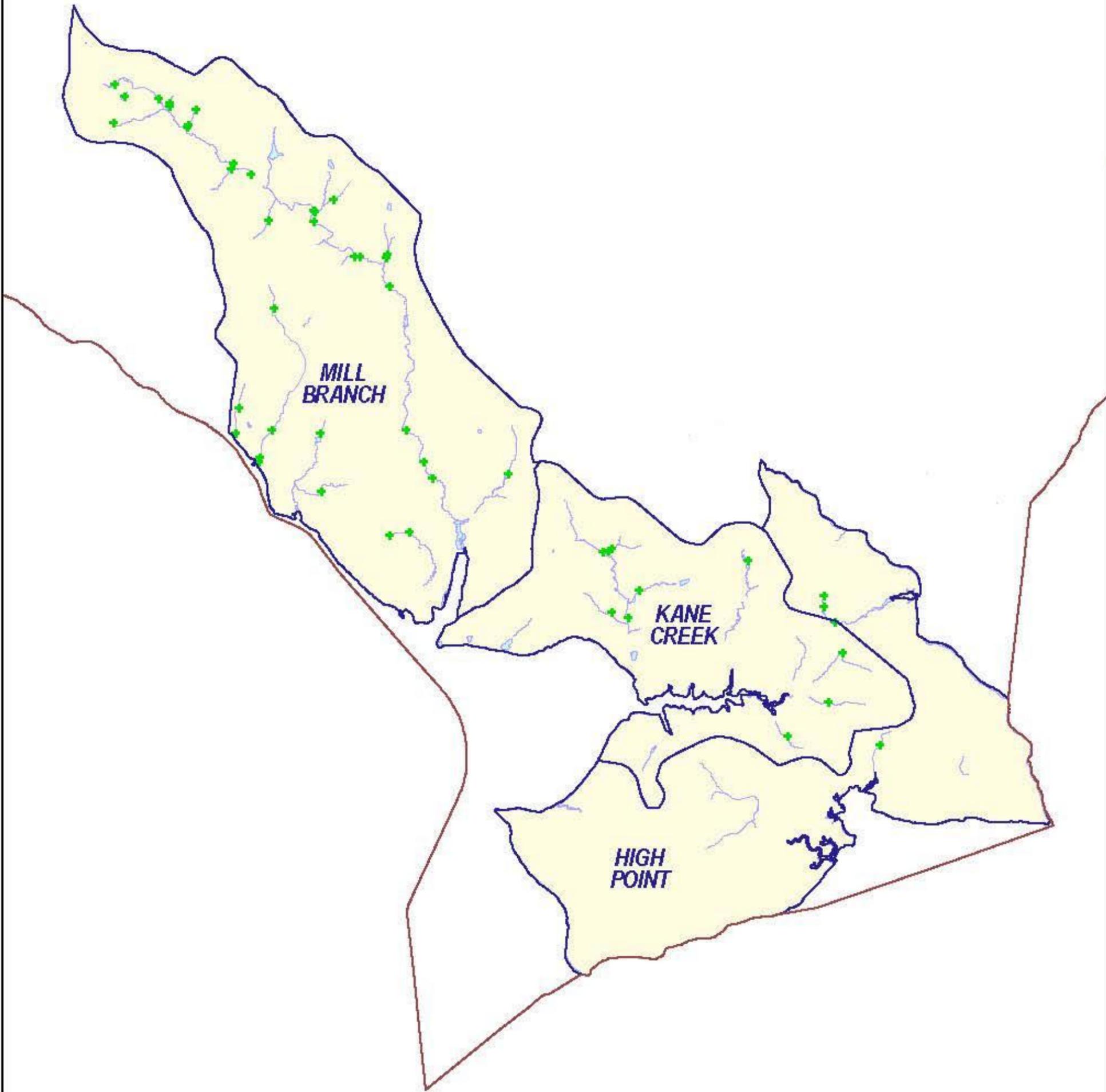
WATERSHED GROUP:  
LOWER OCCOQUAN



0 2000 4000 6000 8000 Feet

**Figure 3-83**  
**Deficient Buffer Impacts**  
**Lower Occoquan Group**  
**Fairfax County Stream Physical Assessment**





**Inventory Type**

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

**WATERSHED GROUP:  
LOWER OCCOQUAN**



0 2000 4000 6000 8000 Feet



**Figure 3-84**  
**Crossings**  
**Lower Occoquan Group**  
**Fairfax County Stream Physical Assessment**





Pipe / Ditch by Impact Score

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

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

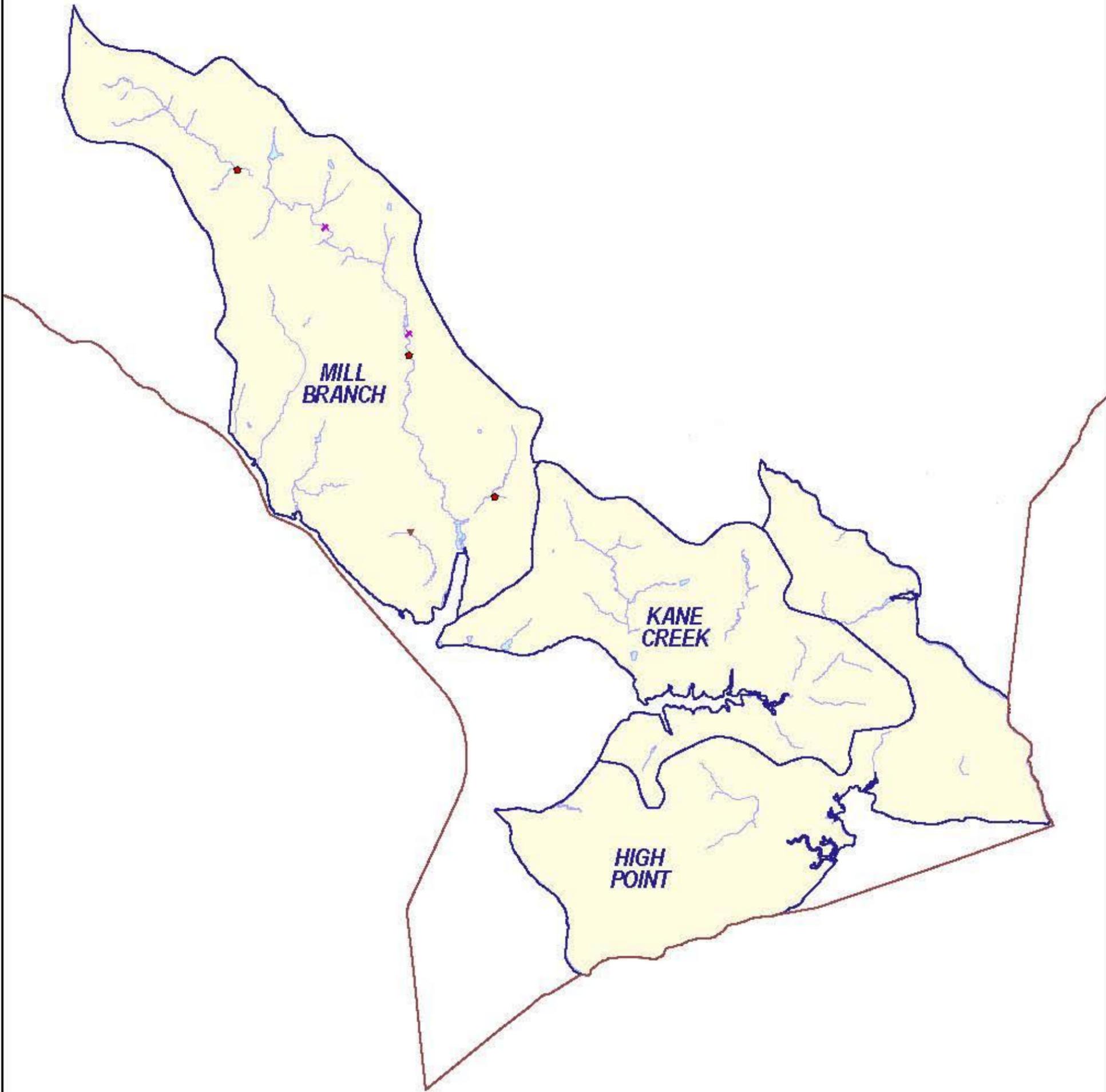
WATERSHED GROUP:  
LOWER OCCOQUAN



0 2000 4000 6000 8000 Feet

**Figure 3-85**  
**Pipe and Ditch Impacts**  
**Lower Occoquan Group**  
**Fairfax County Stream Physical Assessment**





**Inventory Types**

- ▼ Dump
- ◆ Obstruction
- ✕ Utility

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

**WATERSHED GROUP:  
LOWER OCCOQUAN**



0 2000 4000 6000 8000 Feet

**Figure 3-86**  
**Dumps, Obstructions, and Utilities**  
**Lower Occoquan Group**  
**Fairfax County Stream Physical Assessment**



## 3.2.8 Pohick Creek Summary

### 3.2.8.1 Pohick Creek Watershed

**Description.** Pohick Creek Watershed is one of the largest watersheds in Fairfax County, with just over 69 miles of stream assessed. It is a long narrow watershed located in the center of the County. The watershed is contained entirely within the county boundaries, and drains to Pohick Bay, and then into Gunston Cove and the Potomac River.

**Habitat.** The habitat assessment results for Pohick Creek Watershed are summarized by stream in Table 3-37. Habitat scores for each reach are depicted in Figure 3-52. Based on a length weighted habitat score of 95, Pohick Creek Watershed is one of the poorest quality watersheds, compared to the rest of the County. Approximately 2 miles of stream were categorized as having “very poor” habitat conditions, 20 miles as “poor,” 37 miles as “fair,” and 10 miles as “good.”

**CEM.** Based on the CEM evaluations approximately three quarters of the channels assessed in Pohick Creek Watershed are in Evolutionary Stage 3 (Table 3-3), with most of the remainder of the watershed in Stage 4. Figure 3-53 summarizes the CEM results for Pohick Creek Watershed.

**Infrastructure.** The infrastructure inventory resulted in 871 inventory points. The most significant problems were related to four head cuts, two exposed utility lines and one pipe, which were each given an impact score of 10. The infrastructure inventory results are summarized in Table 3-38. Figures 3-54, 3-55, 3-56, 3-57, and 3-58 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.