#### 4. Article Two, B.5- Water Quality Monitoring ("WQM") Plan – Report on whether any of the semi-annual (or annual) WQM required under Article Two, B.5, was conducted during the quarter, and if so, in which sewer basins, and report the results of that monitoring (both BST and fecal coliform) for each such sewer basin.

The second semi-annual round of water quality samples was collected on September 21, 2009. Twenty of the twenty-six sewer basins were sampled. Results are presented below. Human source fecal bacteria were identified in one or more samples from eighteen sewer basins.

A limited round of water quality samples, from four stations in the Anacostia River watershed, was collected on November 18, 2009. Results will be reported in the First Quarter of 2010.

# **Basins Subject to Semi-Annual Monitoring and Reporting Requirements:**

a. Broad Creek-		Fecal Bacteria Results:
	<b>BST Results:</b>	(Enterococcus CFU/100mL)
	Human – 7%	
	Avian – 35%	
BRC001 – downstream	Canine – 13%	245
(Henson Creek)	Deer - 12%	243
	Misc. Wildlife – 19%	
	Non-human Unknown – 14%	
	Human – 10%	
	Avian – 36%	
BRC002 – upstream (Henson Creek)	Canine – 15%	162
	Deer - 13%	102
	Misc. Wildlife – 16%	
	Non-human Unknown – 10%	

### b. Cabin John-

	<b>BST Results:</b>	(Enterococcus CFU/100mL)
	Human – 8%	
	Avian – 35%	
CBJ001 – downstream	Canine – 13%	110
CBJ001 – downstream	Deer – 0%	110
	Misc. Wildlife – 29%	
	Non-human Unknown – 15%	
	Human – 19%	
	Avian – 29%	
CBJ002 – upstream	Canine – 10%	270
	Deer – 12%	270
	Misc. Wildlife – 17%	
	Non-human Unknown – 13%	

c. Horsepen-	F	ecal Bacteria Results:
	<b>BST Results:</b> (1)	<i>Enterococcus</i> CFU/100mL)
	Human – 17%	
	Avian – 25%	
	Canine – 7%	
HSP001 – downstream	Deer – 11%	650
	Horse – 13%	
	Misc. Wildlife – 18%	
	Non-human Unknown – 9%	
	Human – [4 <del>%</del> ] 6%	
	Avian – [ <del>32%</del> ] 31%	
	Canine – 9%	
HSP002 – upstream	Deer – [ <del>14%</del> ] 13%	270
	Horse – [ <del>15%</del> ] 12%	
	Misc. Wildlife – [ <del>16%</del> ] 18%	
	Non-human Unknown – [ <del>10%</del> ] 1	1%

Note: Amended values for station HSP002 were reported by the testing lab on 2/25/2010.

# d. Indian Creek-

# **Fecal Bacteria Results:**

	<b>BST Results:</b>	(Enterococcus CFU/100mL)
INC001 – downstream	Human – 0% Avian – 32% Canine – 10% Deer – 11% Misc. Wildlife – 33% Non-human Unknown – 14%	120
INC002 – upstream	Human – 0% Avian – 30% Canine – 11% Deer – 14% Misc. Wildlife – 29% Non-human Unknown – 16%	282

# e. Little Falls-

	<b>BST Results:</b>	(Enterococcus CFU/100mL)
LFS001 – downstream	Human – 14% Avian – 28% Canine – 15% Deer – 13% Misc. Wildlife – 19% Non-human Unknown – 11%	237
LFS002 – upstream	Human – 7% Avian – 31% Canine – 13% Deer – 3% Misc. Wildlife – 32% Non-human Unknown – 14%	435

# f. Lower Anacostia-

#### Fecal Bacteria Results:

		i ceui Ducteriu Results.
	<b>BST Results:</b>	(Enterococcus CFU/100mL)
	Human – 6%	
	Avian – 41%	
ANA001 – downstream	Canine – 7%	20
ANA001 – downstream	Deer – 13%	30
	Misc. Wildlife – 26%	
	Non-human Unknown – 7%	
	Human – 13%	
	Avian – 39%	
ANA002 – upstream	Canine – 10%	205
	Deer – 6%	203
	Misc. Wildlife – 21%	
	Non-human Unknown – 11%	

# g. Lower Beaverdam Creek-

# Fecal Bacteria Results:

	<b>BST Results:</b>	(Enterococcus CFU/100mL)
LBD001 – downstream	Human – 11% Avian – 27% Canine – 9% Deer – 14% Misc. Wildlife – 26% Non-human Unknown – 13%	510
LBD002 – upstream	Human – 31% Avian – 20% Canine – 8% Deer – 13% Misc. Wildlife – 16% Non-human Unknown – 12%	662

#### h. Muddy Branch-

in muuuy Drunch		i ccui Ducteriu Results.
	<b>BST Results:</b>	(Enterococcus CFU/100mL)
	Human – 0%	
	Avian – 36%	
	Canine – 6%	
MDB001 – downstream	Deer – 11%	360
	Horse – 9%	
	Misc. Wildlife – 27%	
	Non-human Unknown – 11%	
	Human – 11%	
	Avian – 32%	
	Canine – 8%	
MDB002 – upstream	Deer – 13%	500
_	Horse – 0%	
	Misc. Wildlife – 29%	
	Non-human Unknown – 7%	

i. Northeast Branch	- I	Fecal Bacteria Results:
	BST Results: (	Enterococcus CFU/100mL)
	Human – [ <del>2%</del> ] 0%	
	Avian – [ <del>29%</del> ] 31%	
NED001 unstream	Canine – [ <del>12%</del> ] 13%	143
NEB001 – upstream	Deer – [ <del>18%</del> ] 16%	143
	Misc. Wildlife – [ <del>27%</del> ] 25%	
	Non-human Unknown – [ <del>12%</del> ] 1	5%
	Human – [ <del>6%</del> ] 3%	
	Avian – [ <del>34%</del> ] 35%	
NEB002 – downstream	Canine – [ <del>11%</del> ] 10%	15
	Deer – [ <del>5%</del> ] 4%	15
	Misc. Wildlife – [ <del>32%</del> ] 35%	
	Non-human Unknown – [ <del>12%</del> ] 1	3%

Note: Amended values for stations NEB001 and NEB002 were reported by the testing lab on 2/25/2010.

j. Northwest Branch	I <b>-</b>	Fecal Bacteria Results:
	<b>BST Results:</b>	(Enterococcus CFU/100mL)
	Human – 0%	
	Avian – 35%	
NWA001 – downstream	Canine – 8%	65
N W A001 – downstream	Deer – 7%	05
	Misc. Wildlife – 27%	
	Non-human Unknown – 23%	
	Human – 11%	
	Avian – 29%	
NWA002 – upstream	Canine – 17%	260
	Deer – 9%	200
	Misc. Wildlife – 24%	
	Non-human Unknown – 10%	

# k. Oxon Run-

	<b>BST Results:</b>	(Enterococcus CFU/100mL
OXN001 – downstream	Human – 11% Avian – 27% Canine – 11% Deer – 9% Misc. Wildlife – 30% Non-human Unknown – 12%	283
OXN002 – upstream (Watts Branch)	Human – 27% Avian – 23% Canine – 12% Deer – 11% Misc. Wildlife – 22% Non-human Unknown – 5%	647

I. Paint Branch-		Fecal Bacteria Results:
	<b>BST Results:</b>	(Enterococcus CFU/100mL)
	Human – 0%	
	Avian – 33%	
	Canine – 9%	
PNT001 – downstream	Deer – 13%	225
	Horse – 9%	
	Misc. Wildlife – 24%	
	Non-human Unknown – 12%	
	Human – 0%	
	Avian – 29%	
	Canine – 12%	
PNT002 – upstream	Deer – 11%	205
	Horse – 0%	
	Misc. Wildlife – 36%	
	Non-human Unknown – 12%	

# m. Parkway-

# Fecal Bacteria Results:

	<b>BST Results:</b>	(Enterococcus CFU/100mL)
PKY001 – downstream (Bear Branch)	Human – 13%	
	Avian – 29%	
	Canine – 13%	355
	Deer – 11%	555
	Misc. Wildlife – 22%	
	Non-human Unknown – 12%	
PKY002 – upstream (Walker Branch)	Human – 10%	
	Avian – 28%	
	Canine – 12%	303
	Deer – 17%	505
	Misc. Wildlife – 19%	
	Non-human Unknown – 14%	

# n. Piscataway-

# **Fecal Bacteria Results:**

	<b>BST Results:</b> ( <i>Er</i>	nterococcus CFU/100mL)
PSW001 – downstream	Human – 14% (14%) Avian – 29% (29%) Canine – 8% (8%) Deer – 13% (13%) Misc. Wildlife – 24% (24%) Non-human Unknown – 12% (12%)	200 (198)
PSW002 – upstream	Human – 7% Avian – 32% Canine – 9% Deer – 11% Misc. Wildlife – 26% Non-human Unknown – 15%	98

Note: Values in parentheses for station PSW001 are for field duplicate sample.

o. Rock Creek-	F	ecal Bacteria Results:
	<b>BST Results:</b> ( <i>I</i>	Enterococcus CFU/100mL)
RKC001 – downstream	Human – 16%	
	Avian – 33%	
	Canine – 8%	507
	Deer – 9%	507
	Misc. Wildlife – 21%	
	Non-human Unknown – 13%	
RKC002 – upstream	Human – 0% (0%)	
	Avian – 34% (36%)	
	Canine – 14% (15%)	128 (124)
	Deer – 13% (12%)	128 (124)
	Misc. Wildlife – 19% (18%)	
	Non-human Unknown – 20% (19	9%)

Note: Values in parentheses for station RKC002 are for field duplicate sample.

#### p. Seneca Creek-

## Fecal Bacteria Results:

	<b>BST Results:</b>	(Enterococcus CFU/100mL)
	Human – 11%	
	Avian – 27%	
	Canine – 13%	
SNC001 – downstream	Deer – 10%	120
	Horse – 11%	
	Misc. Wildlife – 19%	
	Non-human Unknown – 9%	
	Human – 17%	
SNC002 – upstream	Avian – 29%	
	Canine – 7%	
	Deer – 9%	588
	Horse – 6%	
	Misc. Wildlife – 20%	
	Non-human Unknown – 12%	

# q. Sligo Creek-

### Fecal Bacteria Results:

• •	<b>BST Results:</b>	(Enterococcus CFU/100mL)
SLC001 – downstream	Human – 36% Avian – 21% Canine – 18% Deer – 0% Misc. Wildlife – 18% Non-human Unknown – 7%	877
SLC002 – upstream	Human – 29% (26%) Avian – 19% (21%) Canine – 20% (14%) Deer – 0% (10%) Misc. Wildlife – 21% (21%) Non-human Unknown – 11% (8	848 (636)

Note: Values in parentheses for station SLC002 are for field duplicate sample.

#### Upper Beaverdam Creekr.

#### **Fecal Bacteria Results:** nL)

Opper beaveruani Creek-		ecal Dacteria Results:
	BST Results: (	Enterococcus CFU/100m
	Human – 13% (11%)	
	Avian – 29% (30%)	
UDD001 downstroom	Canine – 11% (11%)	272 (200)
UBD001 – downstream	Deer – 14% (15%)	373 (390)
	Misc. Wildlife – 23% (21%)	
	Non-human Unknown – 10% (12	2%)
	Human – 6%	
UBD002 – upstream	Avian – 32%	
	Canine – 13%	138
	Deer – 10%	150
	Misc. Wildlife – 23%	
	Non-human Unknown – 16%	

Note: Values in parentheses for station UBD001 are for field duplicate sample.

#### Watts Branchs.

	<b>BST Results:</b>	(Enterococcus CFU/100mL)
	Human – 17%	
	Avian – 23%	
	Canine – 11%	
WTB001 – downstream	Deer – 14%	400
	Horse – 0%	
	Misc. Wildlife – 26%	
	Non-human Unknown – 9%	
	Human – 7%	
WTB002 – upstream	Avian – 27%	
	Canine – 13%	
	Deer – 15%	183
	Horse – 7%	
	Misc. Wildlife – 19%	
	Non-human Unknown – 12%	

t. Western Branch-	Fee	cal Bacteria Results:
	<b>BST Results:</b> ( <i>Er</i> )	<i>terococcus</i> CFU/100mL)
	Human – 36% (37%)	
	Avian – 23% (24%)	
	Canine – 9% (8%)	
WNB001 – downstream	Deer – 11% (13%)	199 (193)
	Horse – 4% (3%)	
	Misc. Wildlife – 12% (11%)	
	Non-human Unknown – 5% (4%)	
	Human – 33%	
	Avian – 21%	
WNB002 – upstream	Canine – 8%	
	Deer – 7%	285
	Horse – 0%	
	Misc. Wildlife – 21%	
	Non-human Unknown – 10%	

Note: Values in parentheses for station WNB001 are for field duplicate sample.

# Basins Subject to an Annual Monitoring and Reporting Requirements-

**BST Results:** 

**Fecal Bacteria Results:** (*Enterococcus* CFU/100mL)

- a. Dulles Interceptor-
- b. Mattawoman-
- c. Monacacy-
- d. Patuxent Center-
- e. Patuxent North-
- f. Rock Run-