

# Water Quality Monitoring – 4/10/2010 – Spring Creek in Reding Mills

## Group 1

Chemical Monitoring				
Air Temp C	22			
Water Temp C	13	13		
Dissolved O2 mg/L	10	11	9	9
O2 % Sat (Calculated)	95	105	86	86
pH**	6.8	7.0	7.5	7.8
Nitrate mg/L	0.25	0.5	0.25	0.5
Conductivity uS/cm	280	260	280	270

## Group 2

Chemical Monitoring				
Air Temp C	25			
Water Temp C	13.5	13		
Dissolved O2 mg/L	9	9	10	10
O2 % Sat	86	86	95	95
pH**	6.9	6.8	7.7	7.6
Nitrate mg/L	0.5	0.5	0.5	0.5
Conductivity uS/cm	280	270	270	270

\*\* RE: Data Variation - pH meters were recalibrated after the testing and were holding calibration. There appears to be no reason to discount any of this data, even though there is no obvious reason for the variation. All we know is that it was not an instrument problem and apparently, the macros downstream were not greatly affected. To look at this phenomenon further, a special protocol would need to be designed.

Invertebrate Type	Upstream Riffle	Midstream Riffle	Downstream Riffle	Score
	4/10/2010	4/10/2010	4/10/2010	4/10/2010
caddisfly larv	15	20+	7	3
hellgrammites		1	1	3
mayfly nym			6	3
gilled snails				
Riffle Beetles				
Stonefly nym	3	2		3
Water Penny	2	1	5	3
Other Beetle				
clams/mussel		1		2
crane fly larv	4	1	1	2
crayfish	8	5	5	2
dragonfly nym				
damselfly nym			1	2
scuds	18	25+	25+	2
sowbugs	25+	25+	25+	2
fishfly larv				
watersnipe fly				
aquatic worms	5	10	4	1
black fly larv				
leeches			1	1
midge larv				
pouch snail				
other snails				

Water Quality Rating is 29 or Excellent

Visual Stream Survey Data – Spring Creek Site 4/10/2010 Continued

1. Floodplain land use:

Industrial %	Commercial %	Residential %	Pasture/hayfields %	Row Crops %	Woods %	Other %
	1	10			64	10% Park, 15% grass/weeds

2. Riparian Cover:

Trees %	Grass/Weeds %	Bare Ground %	Parking lots/street %	Buildings %	Other %
70	26		3	1	

3. Streambank Conditions

Trees %	Grass/Weeds %	Bare Ground %	Bedrock %	Pavement/riprap %	Other %
80	19			1	

4. Bed composition of riffle:

Silt or mud %	Sand %	Gravel %	Cobble (2-10") %	Boulder > 10" %	Bedrock %
5		15	65	15	

5. Percent embeddedness of cobble substrate:

70+	80+	20+	30+	50	= 250 / 5 = 50%
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6. Signs of human use – Mowed park area, lilac tree (not native) and plant label

7. Algae

What percent of stream bottom is covered by visible algae? 80%

Of the algae observed, what percentage is:

\_\_\_\_% close-growing + 100% filamentous (strands over 2" long) = 100%

8. Water color: colorless

9. Water Odor: none

10. Weather Conditions (cloud cover): clear, no clouds

11. Comments: none