

## **APPENDIX 1**

### **CALCULATED SITE-SPECIFIC DISCHARGE AT KICK NET SAMPLING SITES, 2005**

This page has been intentionally left blank for two sided printing

Site	Julian		Daisy Lake Dam release (m <sup>3</sup> /s)	Brackendale (WSC	Calculated site
	day	Day of year		08GA043)	specific discharge
	2005			discharge (m <sup>3</sup> /s)	(m <sup>3</sup> /s)
CHK01	238	25-Aug-05	14.7	25.5	19.3
CHK01	256	12-Sep-05	10.1	19.6	14.2
CHK01	268	24-Sep-05	6.7	13.2	9.5
CHK01	285	11-Oct-05	18.8	30.4	23.7
CHK01	299	25-Oct-05	21.0	31.7	25.5
CHK01A	242	29-Aug-05	20.7	32.9	27.0
CHK01A	256	12-Sep-05	10.1	19.6	15.1
CHK01A	268	24-Sep-05	6.7	13.2	10.1
CHK01A	284	10-Oct-05	20.4	33.8	27.4
CHK01A	298	24-Oct-05	21.0	35.1	28.3
CHK02	243	30-Aug-05	17.8	29.7	24.1
CHK02	256	12-Sep-05	10.1	19.6	15.1
CHK02	268	24-Sep-05	6.7	13.2	10.1
CHK02	284	10-Oct-05	20.4	33.8	27.5
CHK02	298	24-Oct-05	21.0	35.1	28.4
CHK03	242	29-Aug-05	20.7	32.9	27.3
CHK03	257	13-Sep-05	9.1	18.6	14.3
CHK03	269	25-Sep-05	6.7	13.1	10.2
CHK03	284	10-Oct-05	20.4	33.8	27.7
CHK03	299	25-Oct-05	17.1	31.7	25.0
CHK04	242	29-Aug-05	20.7	32.9	31.9
CHK04	257	13-Sep-05	9.1	18.6	17.8
CHK04	269	25-Sep-05	6.7	13.1	12.6
CHK04	285	11-Oct-05	18.8	30.4	29.4
CHK04	298	24-Oct-05	17.1	35.1	33.6
CHK05	243	30-Aug-05	17.8	29.7	29.7
CHK05	257	13-Sep-05	9.1	18.6	18.6
CHK05	269	25-Sep-05	6.7	13.1	13.1
CHK05	285	11-Oct-05	18.8	30.4	30.4
CHK05	299	25-Oct-05	17.1	31.7	31.7
CHK06	238	25-Aug-05	14.7	25.5	28.4
CHK06	257	13-Sep-05	9.1	18.6	21.1
CHK06	269	25-Sep-05	6.7	13.1	14.8
CHK06	285	11-Oct-05	18.8	30.4	33.4
CHK06	299	25-Oct-05	17.1	31.7	35.5

This page has been intentionally left blank for two sided printing

## **APPENDIX 2**

# **WATER QUALITY MEASUREMENTS FROM KICK NET SAMPLING STATIONS, 2005**

This page has been intentionally left blank for two sided printing

Site	Station	Sampling Date	Temp. (°C)	pH	Cond. (µS)	DO (mg/L)	DO (%)
CHK01	1	26-Aug-05	13.5				
CHK01	2	26-Aug-05	13.5				
CHK01	3	26-Aug-05	13.5				
CHK01	1	13-Sep-05	11.4	7.2	30.0	12.60	115.4
CHK01	2	13-Sep-05	11.4	7.2	30.0	12.60	115.4
CHK01	3	13-Sep-05	11.4	7.2	30.0	12.60	115.4
CHK01	1	25-Sep-05	8.9	6.6	29.5	14.10	122.1
CHK01	2	25-Sep-05	8.9	6.6	29.5	14.11	122.1
CHK01	3	25-Sep-05	8.9	6.6	29.5	14.11	122.1
CHK01	1	26-Oct-05	8.4	7.3	28.3	10.62	90.9
CHK01	2	26-Oct-05	8.4	7.3	28.3	10.62	90.9
CHK01	3	26-Oct-05	8.4	7.3	28.3	10.62	90.9
CHK01	1	10-Dec-05	9.0	7.4	30.0	10.80	89.9
CHK01	2	10-Dec-05	9.0	7.4	30.0	10.80	89.9
CHK01	3	10-Dec-05	9.0	7.4	30.0	10.80	89.9
		<b>Min</b>	<b>8.4</b>	<b>6.6</b>	<b>28.3</b>	<b>10.6</b>	<b>89.9</b>
		<b>Max</b>	<b>13.5</b>	<b>7.4</b>	<b>30.0</b>	<b>14.1</b>	<b>122.1</b>
		<b>Average</b>	<b>10.2</b>	<b>7.1</b>	<b>29.5</b>	<b>12.0</b>	<b>104.6</b>
CHK01A	1	31-Aug-05	13.0	7.0		7.36	69.9
CHK01A	2	31-Aug-05	13.0	7.0		7.36	69.9
CHK01A	3	31-Aug-05	13.0	7.0		7.36	69.9
CHK01A	1	13-Sep-05	12.5	7.1	30.0	12.21	114.2
CHK01A	2	13-Sep-05	12.5	7.1	30.0	12.21	114.2
CHK01A	3	13-Sep-05	12.5	7.1	30.0	12.21	114.2
CHK01A	1	25-Sep-05	10.2	8.0	45.1	13.78	120.0
CHK01A	2	25-Sep-05	10.2	8.0	45.1	13.78	120.0
CHK01A	3	25-Sep-05	10.2	8.0	45.1	13.78	120.0
CHK01A	1	11-Oct-05	9.4	7.8	31.1	11.35	97.9
CHK01A	2	11-Oct-05	9.4	7.8	31.1	11.35	97.9
CHK01A	3	11-Oct-05	9.4	7.8	31.1	11.35	97.9
CHK01A	1	25-Oct-05	9.4	7.4	30.1	10.36	90.6
CHK01A	2	25-Oct-05	9.4	7.4	30.1	10.36	90.6
CHK01A	3	25-Oct-05	9.4	7.4	30.1	10.36	90.6
		<b>Min</b>	<b>9.4</b>	<b>7.0</b>	<b>30.0</b>	<b>7.4</b>	<b>69.9</b>
		<b>Max</b>	<b>13.0</b>	<b>8.0</b>	<b>45.1</b>	<b>13.8</b>	<b>120.0</b>
		<b>Average</b>	<b>10.9</b>	<b>7.5</b>	<b>34.1</b>	<b>11.0</b>	<b>98.5</b>
CHK02	1	30-Aug-05	13.4	7.0	30.0	7.09	67.8
CHK02	2	30-Aug-05	13.4	7.0	30.0	7.09	67.8
CHK02	3	30-Aug-05	13.4	7.0	30.0	7.09	67.8
CHK02	1	13-Sep-05	13.1	7.3	30.0	12.29	115.0
CHK02	2	13-Sep-05	13.1	7.3	30.0	12.29	115.0
CHK02	3	13-Sep-05	13.1	7.3	30.0	12.29	115.0
CHK02	1	25-Sep-05	11.4	6.9	33.4	13.32	121.8

Site	Station	Sampling Date	Temp. (°C)	pH	Cond. (µS)	DO (mg/L)	DO (%)
CHK02	2	25-Sep-05	11.4	6.9	33.4	13.32	121.8
CHK02	3	25-Sep-05	11.4	6.9	33.4	13.32	121.8
CHK02	1	11-Oct-05	10.1	7.4	33.1	11.21	98.9
CHK02	2	11-Oct-05	10.1	7.4	33.1	11.21	98.9
CHK02	3	11-Oct-05	10.1	7.4	33.1	11.21	98.9
CHK02	1	25-Oct-05	9.5	7.4	30.5	10.05	87.7
CHK02	2	25-Oct-05	9.5	7.4	30.5	10.05	87.7
CHK02	3	25-Oct-05	9.5	7.4	30.5	10.05	87.7
		<b>Min</b>	<b>9.5</b>	<b>6.9</b>	<b>30.0</b>	<b>7.1</b>	<b>67.8</b>
		<b>Max</b>	<b>13.4</b>	<b>7.4</b>	<b>33.4</b>	<b>13.3</b>	<b>121.8</b>
		<b>Average</b>	<b>11.5</b>	<b>7.2</b>	<b>31.4</b>	<b>10.8</b>	<b>98.2</b>
CHK03	1	30-Aug-05	13.6	6.9	28.0	5.66	54.2
CHK03	2	30-Aug-05	13.6	6.9	28.0	5.66	54.2
CHK03	3	30-Aug-05	13.6	6.9	28.0	5.66	54.2
CHK03	1	14-Sep-05	11.5	7.3	30.0	12.92	118.0
CHK03	2	14-Sep-05	11.5	7.3	30.0	12.92	118.0
CHK03	3	14-Sep-05	11.5	7.3	30.0	12.92	118.0
CHK03	1	26-Sep-05	9.4	7.1	45.8	13.50	118.1
CHK03	2	26-Sep-05	9.4	7.1	45.8	13.50	118.1
CHK03	3	26-Sep-05	9.4	7.1	45.8	13.50	118.1
CHK03	1	11-Oct-05	10.3	7.4	32.2	10.96	97.5
CHK03	2	11-Oct-05	10.3	7.4	32.2	10.96	97.5
CHK03	3	11-Oct-05	10.3	7.4	32.2	10.96	97.5
CHK03	1	26-Oct-05	8.1	7.2	27.9	9.93	92.5
CHK03	2	26-Oct-05	8.1	7.2	27.9	9.93	92.5
CHK03	3	26-Oct-05	8.1	7.2	27.9	9.93	92.5
		<b>Min</b>	<b>8.1</b>	<b>6.9</b>	<b>27.9</b>	<b>5.7</b>	<b>54.2</b>
		<b>Max</b>	<b>13.6</b>	<b>7.4</b>	<b>45.8</b>	<b>13.5</b>	<b>118.1</b>
		<b>Average</b>	<b>10.6</b>	<b>7.2</b>	<b>32.8</b>	<b>10.6</b>	<b>96.1</b>
CHK04	1	30-Aug-05	13.4	7.0	18-77	5.58	53.7
CHK04	2	30-Aug-05	13.4	7.0	18-77	5.58	53.7
CHK04	3	30-Aug-05	13.4	7.0	18-77	5.58	53.7
CHK04	1	14-Sep-05	11.5	7.3	40.0	12.60	116.4
CHK04	2	14-Sep-05	11.5	7.3	40.0	12.60	116.4
CHK04	3	14-Sep-05	11.5	7.3	40.0	12.60	116.4
CHK04	1	26-Sep-05	9.7	7.1	35.3	13.92	121.6
CHK04	2	26-Sep-05	9.7	7.1	35.3	13.92	121.6
CHK04	3	26-Sep-05	9.7	7.1	35.3	13.92	121.6
CHK04	1	25-Oct-05	8.6	7.5	31.6	11.15	95.7
CHK04	2	25-Oct-05	8.6	7.5	31.6	11.15	95.7
CHK04	3	25-Oct-05	8.6	7.5	31.6	11.15	95.7
CHK04	1	12-Oct-05	9.1	7.4	33.1	10.92	94.4
CHK04	2	12-Oct-05	9.1	7.4	33.1	10.92	94.4

Site	Station	Sampling Date	Temp. (°C)	pH	Cond. (µS)	DO (mg/L)	DO (%)
<b>CHK04</b>	3	12-Oct-05	9.1	7.4	33.1	10.92	94.4
		<b>Min</b>	<b>8.6</b>	<b>7.0</b>	<b>31.6</b>	<b>5.6</b>	<b>53.7</b>
		<b>Max</b>	<b>13.4</b>	<b>7.5</b>	<b>40.0</b>	<b>13.9</b>	<b>121.6</b>
		<b>Average</b>	<b>10.5</b>	<b>7.3</b>	<b>35.0</b>	<b>10.8</b>	<b>96.4</b>
<b>CHK05</b>	1	31-Aug-05	14.0	6.9		7.58	73.8
<b>CHK05</b>	2	31-Aug-05	14.0	6.9		7.58	73.8
<b>CHK05</b>	3	31-Aug-05	14.0	6.9		7.58	73.8
<b>CHK05</b>	1	14-Sep-05	12.3	7.2	40.0	12.62	117.9
<b>CHK05</b>	2	14-Sep-05	12.3	7.2	40.0	12.62	117.9
<b>CHK05</b>	3	14-Sep-05	12.3	7.2	40.0	12.62	117.9
<b>CHK05</b>	1	26-Sep-05	10.4	7.0	36.3	13.27	119.1
<b>CHK05</b>	2	26-Sep-05	10.4	7.0	36.3	13.27	119.1
<b>CHK05</b>	3	26-Sep-05	10.4	7.0	36.3	13.27	119.1
<b>CHK05</b>	1	12-Oct-05	9.3	7.4	33.5	10.72	93.8
<b>CHK05</b>	2	12-Oct-05	9.3	7.4	33.5	10.72	93.8
<b>CHK05</b>	3	12-Oct-05	9.3	7.4	33.5	10.72	93.8
<b>CHK05</b>	1	26-Oct-05	8.6	7.5	31.7	10.13	86.6
<b>CHK05</b>	2	26-Oct-05	8.6	7.5	31.7	10.13	86.6
<b>CHK05</b>	3	26-Oct-05	8.6	7.5	31.7	10.13	86.6
		<b>Min</b>	<b>8.6</b>	<b>6.9</b>	<b>31.7</b>	<b>7.6</b>	<b>73.8</b>
		<b>Max</b>	<b>14.0</b>	<b>7.5</b>	<b>40.0</b>	<b>13.3</b>	<b>119.1</b>
		<b>Average</b>	<b>10.9</b>	<b>7.2</b>	<b>35.4</b>	<b>10.9</b>	<b>98.2</b>
<b>CHK06</b>	1	26-Aug-05	11.0	7.1	50.0	11.00	
<b>CHK06</b>	2	26-Aug-05	11.0				
<b>CHK06</b>	3	26-Aug-05	11.0				
<b>CHK06</b>	1	14-Sep-05	12.2	7.3	60.0	12.72	118.8
<b>CHK06</b>	2	14-Sep-05	12.2	7.3	60.0	12.72	118.8
<b>CHK06</b>	3	14-Sep-05	12.2	7.3	60.0	12.72	118.8
<b>CHK06</b>	1	26-Sep-05	10.7	6.9	55.7	14.22	129.2
<b>CHK06</b>	2	26-Sep-05	10.7	6.9	55.7	14.22	129.2
<b>CHK06</b>	3	26-Sep-05	10.7	6.9	55.7	14.22	129.2
<b>CHK06</b>	1	12-Oct-05	9.2	7.4	46.0	10.96	94.6
<b>CHK06</b>	2	12-Oct-05	9.2	7.4	46.0	10.96	94.6
<b>CHK06</b>	3	12-Oct-05	9.2	7.4	46.0	10.96	94.6
<b>CHK06</b>	1	26-Oct-05	8.0	7.2	40.5	10.33	87.2
<b>CHK06</b>	2	26-Oct-05	8.0	7.2	40.5	10.33	87.2
<b>CHK06</b>	3	26-Oct-05	8.0	7.2	40.5	10.33	87.2
		<b>Min</b>	<b>8.0</b>	<b>6.9</b>	<b>40.5</b>	<b>10.3</b>	<b>87.2</b>
		<b>Max</b>	<b>12.2</b>	<b>7.4</b>	<b>60.0</b>	<b>14.2</b>	<b>129.2</b>
		<b>Average</b>	<b>10.2</b>	<b>7.2</b>	<b>50.5</b>	<b>12.0</b>	<b>107.5</b>

Blanks - indicate readings not available due to meter malfunction

This page has been intentionally left blank for two sided printing

## **APPENDIX 3**

### **NUMBER AND SPECIES OF BENTHIC INVERTEBRATES IN KICK NET SAMPLES, 2005**

This page has been intentionally left blank for two sided printing

**Table 3-1. Number and species of benthic invertebrates in kick net samples, Order Ephemeroptera**

Date	Location	s001	s002	s003	s004	s005	s006	s007	s008	s009	s010	s011	s012	s013	s014	s015	s016	s017	s018
26-Aug-05	CHK01							9	240	21	1	692	1					120	8
13-Sep-05	CHK01			16				1	323	19	8	1336	281			8	24		25
25-Sep-05	CHK01			9					186	6	1	1443	112			3	28	9	138
12-Oct-05	CHK01			16		16			825		32	2055	1119			1	16	464	52
26-Oct-05	CHK01			12	8				358			394	99				29	116	156
30-Aug-05	CHK02			8				5	268	186		954							
13-Sep-05	CHK02								123	27		2387	5				5	11	
25-Sep-05	CHK02	3							401	12		5586	16					192	1
11-Oct-05	CHK02			8					658	1	24	1872	81					24	808
25-Oct-05	CHK02			16					1057			4852	1097			1	223	2112	132
31-Aug-05	CHK01A							6	124	15		1060	4						
13-Sep-05	CHK01A							1	161	10		2622							
25-Sep-05	CHK01A								22	2		259							
11-Oct-05	CHK01A				64				1666			2769	96	18					
25-Oct-05	CHK01A	1	48					1	1901			1451	3074				195		7
30-Aug-05	CHK03							5	1	125	79	428	7						
14-Sep-05	CHK03			11			11		341	82		3690	11						
26-Sep-05	CHK03			32	192				896	60	32	5283							
11-Oct-05	CHK03			80	128				1687	3		2324	160	128					240
26-Oct-05	CHK03	2	192						4541			8491	2532					842	
30-Aug-05	CHK04			16				4	56	65		199	12						
14-Sep-05	CHK04	1		16				4	1	60	66	905	24			17		12	1
26-Sep-05	CHK04			64					40	37		1347	17		10			24	1
12-Oct-05	CHK04			8					448	8		1124	184				17	24	
25-Oct-05	CHK04								82			799	46	8				12	3
31-Aug-05	CHK05			4				1	52	47		10	2						
14-Sep-05	CHK05								40	16		35	2						2
26-Sep-05	CHK05			2	12				106	2		75	10	4				32	
12-Oct-05	CHK05			24	4				1068		8	73	100	24				89	
26-Oct-05	CHK05								136			475	36				12	28	1
26-Aug-05	CHK06	4			4				9	25		170							3
14-Sep-05	CHK06								4	2		184					1		10
26-Sep-05	CHK06			1					8	1		78	2					6	5
12-Oct-05	CHK06			4	3				70			263	34				2	70	6
26-Oct-05	CHK06			22	6				160			311	27				22	83	22

kingdom	phylum	class	subclass	infraclass	superorder	order	suborder	Infraorder	superfamily	family	subfamily	tribe	genus	species	Stage	spnum
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera									EM	s001
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera									AD	s002
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Lanceolata		Leptophlebiidae			Paraleptophlebia		L	s003
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Pannota	Ephemerelloidea	Ephemerellidae					young instars	s004
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Pannota	Ephemerelloidea	Ephemerellidae			Caudatella		L	s005
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Pannota	Ephemerelloidea	Ephemerellidae			Drunella	doddsii	L	s006
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Pannota	Ephemerelloidea	Ephemerellidae			Drunella	coloradensis/flavilinea	L	s007
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Pannota	Ephemerelloidea	Ephemerellidae			Drunella	spinifera/grandis	L	s008
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Pannota	Ephemerelloidea	Ephemerellidae			Ephemerella		L	s009
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Pannota	Ephemerelloidea	Ephemerellidae			Serratella		L	s010
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Pisciforma			Ameletidae			Ameletus		L	s011
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Pisciforma			Baetidae			Baetis		L	s012
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Setisura			Heptageniidae			Cinygmula		L	s013
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Setisura			Heptageniidae			Epeorus		young instars	s014
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Setisura			Heptageniidae			Epeorus	deceptivus/hesperus	L	s015
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Setisura			Heptageniidae			Epeorus	longimanus	L	s016
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Setisura			Heptageniidae			Heptagenia		young instars	s017
Animalia	Arthropoda	Insecta	Pterygota	palaeoptera		Ephemeroptera	Setisura			Heptageniidae			Rhithrogena		L	s018

**Table 3-2. Number and species of benthic invertebrates in kick net samples, Order Plecoptera**

Date	Location	s019	s020	s021	s022	s023	s024	s025	s026	s027	s028	s029	s030	s031	s032	s033	s034	s035
26-Aug-05	CHK01									7	76		8					2
13-Sep-05	CHK01	8								1	151				1	1	16	
25-Sep-05	CHK01							1			222						31	
12-Oct-05	CHK01	16							16		195						20	
26-Oct-05	CHK01							4	41		116					1	83	
30-Aug-05	CHK02	8							8		15	34						
13-Sep-05	CHK02										5						22	
25-Sep-05	CHK02												16				116	
11-Oct-05	CHK02											60					52	
25-Oct-05	CHK02							1	104		79						117	
31-Aug-05	CHK01A			4					32		13							
13-Sep-05	CHK01A										1						116	
25-Sep-05	CHK01A									7							8	
11-Oct-05	CHK01A							16									183	
25-Oct-05	CHK01A							3			6						100	
30-Aug-05	CHK03										1	5						
14-Sep-05	CHK03										13						65	
26-Sep-05	CHK03							32									128	
11-Oct-05	CHK03							1			2				1	214		
26-Oct-05	CHK03							5			11						46	
30-Aug-05	CHK04	4	4					20			15							
14-Sep-05	CHK04										6	4					35	
26-Sep-05	CHK04							25	18	16							120	
12-Oct-05	CHK04							35	106			1					253	
25-Oct-05	CHK04							1	20	4							24	
31-Aug-05	CHK05	1	2		1	31					13	14				1	1	
14-Sep-05	CHK05					4				2	6						17	
26-Sep-05	CHK05	8		4		6				4	2	5					51	
12-Oct-05	CHK05	28	8		4	39					29						38	
26-Oct-05	CHK05	6				13	24	16			5			1			41	
26-Aug-05	CHK06							1			13	1						
14-Sep-05	CHK06					1	2				2						1	
26-Sep-05	CHK06		1					5			5						3	
12-Oct-05	CHK06	4				27	49				12	1					10	
26-Oct-05	CHK06		19	5		2	27	3			4						15	

kingdom	phylum	class	subclass	infraclass	superorder	order	suborder	Infraorder	superfamily	family	subfamily	tribe	genus	species	Stage	spnum
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Capniidae					L	s019
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Capniidae					young instars	s020
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Capniidae	Capniinae		Capnia		L	s021
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Nemouridae					L	s022
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Nemouridae					young instars	s023
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Nemouridae	Amphinურიinae		Malenka		L	s024
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Nemouridae	Nemourinae		Zapada		L	s025
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Taeniopterygidae	Brachypteryginae		Taenionema		L	s026
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Chloroperlidae					young instars	s027
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Chloroperlidae	Chloroperlinae		Suwallia		L	s028
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Chloroperlidae	Chloroperlinae		Sweltsa		L	s029
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlodidae					young instars	s030
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlodidae	Acroneuriinae	Acroneuriini	Hesperoperla	pacifica	L	s031
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlodidae	Isoperlinae		Isoperla		L	s032
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlodidae	Perlodinae	Arcynopterygini	Megarcys		L	s033
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlodidae	Perlodinae	Diploperlini	Cultus		L	s034
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlodidae	Perlodinae	Diploperlini	Kogotus		L	s035

**Table 3-3. Number and species of benthic invertebrates in kick net samples, Order Trichoptera**

Date	Location	s036	s037	s038	s039	s040	s041	s042	s043	s044	s045	s046	s047	s048	s049
26-Aug-05	CHK01				1									18	3
13-Sep-05	CHK01				13									19	4
25-Sep-05	CHK01			8	21	6								33	
12-Oct-05	CHK01				16	1	2			1				63	
26-Oct-05	CHK01				31		36							72	
30-Aug-05	CHK02	8	8		16		58							17	13
13-Sep-05	CHK02				17		59							5	
25-Sep-05	CHK02				27		165							56	2
11-Oct-05	CHK02				8		25		8					2	2
25-Oct-05	CHK02				34	3	160		16					44	
31-Aug-05	CHK01A				20		44			4				31	1
13-Sep-05	CHK01A				26	1	130							66	7
25-Sep-05	CHK01A				5	1	31							81	3
11-Oct-05	CHK01A				49	1	129							101	
25-Oct-05	CHK01A					2	96							61	
30-Aug-05	CHK03				7	1	53							7	12
14-Sep-05	CHK03				7	1			11					141	12
26-Sep-05	CHK03				14	2	67							68	4
11-Oct-05	CHK03				10		35							49	
26-Oct-05	CHK03				13		160							157	
30-Aug-05	CHK04				4		24						4	3	8
14-Sep-05	CHK04		12		3	4	24				1		8	37	13
26-Sep-05	CHK04				5		36			1			8	54	6
12-Oct-05	CHK04				8		46			3			8	15	
25-Oct-05	CHK04					14							6	5	
31-Aug-05	CHK05		2				6	1			1	2		7	4
14-Sep-05	CHK05						4						2	6	1
26-Sep-05	CHK05				1									2	
12-Oct-05	CHK05	4	1							7				1	
26-Oct-05	CHK05						6		2	1				6	
26-Aug-05	CHK06													5	
14-Sep-05	CHK06													3	2
26-Sep-05	CHK06				1		1							8	
12-Oct-05	CHK06				2									9	
26-Oct-05	CHK06				3	2	16						3	21	1

kingdom	phylum	class	subclass	infraclass	superorder	order	suborder	Infraorder	superfamily	family	subfamily	tribe	genus	species	Stage	spnum
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera									juvenile larvae	s036
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera			Glossosomatoidea	Glossosomatidae	Glossosomat	Glossosomatini	Glossosoma		L	s037
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera			Hydropsychoidea	Hydropsychidae					young instars	s038
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera			Hydropsychoidea	Hydropsychidae	Arctopsychinae		Arctopsyche		L	s039
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera			Hydropsychoidea	Hydropsychidae	Arctopsychinae		Parapsyche		L	s040
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera			Hydropsychoidea	Hydropsychidae	Hydropsychinae		Hydropsyche		L	s041
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera			Hydropsychoidea	Hydroptilidae	Hydroptilinae	Stactobiini	Stactobiella		L	s042
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Lepidostomatidae	Lepidostomatinae		Lepidostoma		L	s043
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Limnephilidae	Limnephilinae	Chilostigmini	Psychoglypha		L	s044
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Limnephilidae	Limnephilinae	Limnephilini	Limnephilus		L	s045
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Limnephilidae	Limnephilinae	Limnephilini	Limnephilus		L	s046
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Uenoidae		Thremmatinae	Oligophlebodes		L	s047
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera			Rhyacophiloidea	Rhyacophilidae			Rhyacophila		L	s048
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Trichoptera			Rhyacophiloidea	Rhyacophilidae			Rhyacophila		PU	s049

**Table 3-4. Number and species of benthic invertebrates in kick net samples, Order Diptera**

Date	Location	s050	s051	s052	s053	s054	s055	s056	s057	s058	s059	s060	s061	s062	s063	s064	s065	s066	s067	s068	s069	s070	s071
26-Aug-05	CHK01			56	10							299	64		25	16							
13-Sep-05	CHK01			17	16	16						115			347	16							10
25-Sep-05	CHK01		1	3		20						55	17		698	89							17
12-Oct-05	CHK01			2		50						144	16								1		7
26-Oct-05	CHK01			1		22						80			4	4							4
30-Aug-05	CHK02			2	25							349	194		213				8		6		14
13-Sep-05	CHK02											16	5		518				5		8		19
25-Sep-05	CHK02			16								32			905						4		3
11-Oct-05	CHK02														17	9			8		4		14
25-Oct-05	CHK02			8								8			520	25					1		2
31-Aug-05	CHK01A			8	12	4						289	73	4	45							4	12
13-Sep-05	CHK01A		1	16	48	16						257	48		1210								1
25-Sep-05	CHK01A		10	7		6						22	14		235	8			2		2		2
11-Oct-05	CHK01A					17				1		82	48		83	32	16						1
25-Oct-05	CHK01A					16						33	1		128	7							
30-Aug-05	CHK03			6	11				5	5		382	154		211	14					1		6
14-Sep-05	CHK03			34	11							86	21		734						1		12
26-Sep-05	CHK03											65	32		1602						5		1
11-Oct-05	CHK03			16								52	16		185	16							
26-Oct-05	CHK03							2				3			473	1							69
30-Aug-05	CHK04			36	4					32		512	345			8			4	1	3		33
14-Sep-05	CHK04		4	16								101	176	12	144	1					1		15
26-Sep-05	CHK04		8	18								74	64		173	9					1	8	12
12-Oct-05	CHK04		8	9								9	8	8	26	24			24		3		10
25-Oct-05	CHK04			1		2						4		2	7	4			2				11
31-Aug-05	CHK05			40	17							249	189	2	2				6		1		13
14-Sep-05	CHK05			30								315	114	2	8				1				2
26-Sep-05	CHK05		2	28		2						385	153		4	2							4
12-Oct-05	CHK05		2	22	4							186	80	8	13	4			8		3	4	13
26-Oct-05	CHK05											30	2		11			26		8	6		9
26-Aug-05	CHK06		1	15	7							43	15	3	9				3			3	1
14-Sep-05	CHK06			9					1			66	17	1	24	1							2
26-Sep-05	CHK06		1	1		1						47	15	4	10		1					1	
12-Oct-05	CHK06		2	4		2						27	8	8	2				6			2	3
26-Oct-05	CHK06			13							3	19	3		5				3			8	1

kingdom	phylum	class	subclass	infraclass	superorder	order	suborder	Infraorder	superfamily	family	subfamily	tribe	genus	species	Stage	spnum
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera									PU	s050
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Empididae					PU	s051
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Empididae	Hemerodrom	Hemerodromiini	Chelifera		L	s052
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Empididae	Clinocerinae		Clinocera/Trichoclinocera		L	s053
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Empididae	Clinocerinae		Wiedemannia		L	s054
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Empididae	Hemerodrom	Hemerodromiini	Hemerodromia		PU	s055
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Empididae		Oreogetoninae	Oreogeton		L	s056
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Ephydriidae					L	s057
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Ceratopogonidae		Palpomyiini	Bezzia/Probezzia		L	s058
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Ceratopogonidae		Forcipomyiinae	Forcipomyia		PU	s059
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae					L	s060
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae					PU	s061
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae					AD/EM	s062
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Simuliidae					L	s063
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Simuliidae					PU	s064
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Simuliidae					AD	s065
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Simuliidae	Simuliinae	Prosimuliini	Prosimulium		L	s066
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Limoniinae	Eriopterini	Hesperoconopa		L	s067
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Limoniinae	Eriopterini	Rhabdomastix		L	s068
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Limoniinae	Hexatomiini	Hexatoma		L	s069
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Limoniinae	Limoniini	Antocha		L	s070
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Limoniinae	Pediciini	Dicranota		L	s071

**Table 3-5. Number and species of benthic invertebrates in kick net samples, other Orders**

Date	Location	s072	s073	s074	s075	s076	s077	s078	s079	s080	s081	s082	s083	s084	s085	s086	s087	s088	s089	s090	s091	s092	s093	s094
26-Aug-05	CHK01					51	8		2		40				8		16							
13-Sep-05	CHK01					25		8	32	8	96				8		9							9
25-Sep-05	CHK01					10			8		155				16				18					
12-Oct-05	CHK01										32		16	16										16
26-Oct-05	CHK01										89				4				1					
30-Aug-05	CHK02					8					34								18					
13-Sep-05	CHK02										11								5		11			
25-Sep-05	CHK02						16				64				1									
11-Oct-05	CHK02								8															
25-Oct-05	CHK02																							
31-Aug-05	CHK01A					12			4		52							4						
13-Sep-05	CHK01A										32				16			16	1					
25-Sep-05	CHK01A									4	2	12												
11-Oct-05	CHK01A										32													
25-Oct-05	CHK01A										16										1			
30-Aug-05	CHK03										5	11							11					
14-Sep-05	CHK03					12		11	11		96													11
26-Sep-05	CHK03										96													
11-Oct-05	CHK03												16											
26-Oct-05	CHK03										64								64					
30-Aug-05	CHK04	4				4					4							4	4					
14-Sep-05	CHK04		1		4	4					4													
26-Sep-05	CHK04					25					88													
12-Oct-05	CHK04				8						32													
25-Oct-05	CHK04										8													
31-Aug-05	CHK05					10				2	2	38	2	6		2	3	10						
14-Sep-05	CHK05					2	8	4	5		22							2						
26-Sep-05	CHK05					6	2	2	2		28							2		12				
12-Oct-05	CHK05					8	8		16		20						4	8		4	1			
26-Oct-05	CHK05								2		10					3				6				
26-Aug-05	CHK06					7	1		3		11		1						1					
14-Sep-05	CHK06										14											1		1
26-Sep-05	CHK06				1				1	1	7					1	1							
12-Oct-05	CHK06				2				2		30					2	6			8				
26-Oct-05	CHK06										11				3				8		5			

kingdom	phylum	class	subclass	infraclass	superorder	order	suborder	Infraorder	superfamily	family	subfamily	tribe	genus	species	Stage	spnum
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Coleoptera	Adephaga			Dytiscidae					L	s072
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Coleoptera	Polyphaga	Cucujiformia	Curculionoidea	Curculionidae					Acc-AD	s073
Animalia	Arthropoda	Insecta	Pterygota	Neoptera		Hemiptera	Sternorrhyncha		Aphidoidea	Aphididae					Acc-AD	s074
Animalia	Arthropoda	Insecta	Pterygota	Neoptera	Neuropterida	Neuroptera	Hemerobiiiformia			Hemerobiidae					Acc-L	s075
Animalia	Arthropoda	Entognatha				Collembola				Isotomidae						s076
Animalia	Arthropoda	Arachnida	Acarina													s077
Animalia	Arthropoda	Arachnida	Acarina												juvenile	s078
Animalia	Arthropoda	Arachnida	Acarina			Acariformes	Prostigmata			Hygrobatidae			Hygrobates			s079
Animalia	Arthropoda	Arachnida	Acarina			Acariformes	Prostigmata			Lebertiidae			Lebertia			s080
Animalia	Arthropoda	Arachnida	Acarina			Acariformes	Prostigmata			Protziidae			Wandesia			s081
Animalia	Arthropoda	Arachnida	Acarina			Acariformes	Prostigmata			Sperchonidae			Sperchon/Sperchonopsis			s082
Animalia	Arthropoda	Arachnida	Acarina			Acariformes	Prostigmata			Torrenticolidae			Testudacarus			s083
Animalia	Arthropoda	Arachnida	Acarina			Acariformes	Prostigmata			Torrenticolidae			Torrenticola			s084
Animalia	Arthropoda	Ostracoda													f-freshwater	s085
Animalia	Annelida	Citellata	Hirudinae	Euhirudinea		Rhynchobdellida				Piscicolidae	Piscicolinae		Piscicola			s086
Animalia	Annelida	Citellata	Oligochaeta			Haplotaxida	Tubificina			Enchytraeidae						s087
Animalia	Annelida	Citellata	Oligochaeta			Haplotaxida	Tubificina			Naididae			Nais			s088
Animalia	Annelida	Citellata	Oligochaeta			Haplotaxida	Tubificina			Tubificidae					juvenile	s089
Animalia	Annelida	Citellata	Oligochaeta			Lumbriculida				Lumbriculidae					juvenile	s090
Animalia	Annelida	Citellata	Oligochaeta			Lumbriculida				Lumbriculidae						s091
Animalia	Ectoprocta	Gymnolaemata				Ctenostomata	Carnosa		Paludicelloidea	Arachniidae			Eiseniella		Acc	s092
Animalia	Mollusca	Bivalvia	Heterodonta			Veneroidea			Corbiculoidea	Pisidiidae			Sphaerium			s093
Animalia	Platyhelminth	Turbellaria	Archoophora			Tricladida				Planariidae			Polycelis			s094

This page has been intentionally left blank for two sided printing

## **APPENDIX 4**

### **NUMBER AND SPECIES OF BENTHIC INVERTEBRATES IN COLONIZATION BASKETS, 2005**

This page has been intentionally left blank for two sided printing

Table 4-1. Number and species of benthic invertebrates in colonization baskets. Order Ephemeroptera

Date:	Station	Replicate	s001	s002	s003	s004	s005	s006	s007	s008	s009	s010	s011	s012	s013	s014	s015	s016	s017	s018	s019
14-Dec-05	dam	1	0	0	0	0	0	0	0	116	0	0	4	0	55	23	0	0	2	4	0
14-Dec-05	dam	2	0	0	1	0	0	0	0	260	0	0	10	0	52	0	0	0	26	0	0
14-Dec-05	dam	3	0	0	0	0	0	0	0	133	0	0	43	0	102	0	0	0	32	0	0
14-Dec-05	dam	4	0	0	3	0	0	0	0	123	0	0	72	0	99	0	0	0	18	0	0
14-Dec-05	Saltsheds	1	0	0	5	0	0	0	2	82	0	7	26	0	1181	0	0	0	37	0	72
14-Dec-05	Saltsheds	2	0	0	0	0	0	0	0	20	0	0	32	0	504	0	0	0	22	0	67
14-Dec-05	Saltsheds	3	0	0	0	0	0	0	0	22	0	3	16	0	213	0	0	0	9	0	80
14-Dec-05	Saltsheds	4	0	0	0	0	0	0	2	56	0	6	100	0	936	0	0	0	24	0	216
13-Dec-05	u/s Culliton	1	0	0	34	0	0	0	0	758	0	16	202	0	536	0	0	0	182	16	4
13-Dec-05	u/s Culliton	2	0	0	12	0	0	0	0	496	0	10	202	0	542	0	0	0	124	0	4
13-Dec-05	u/s Culliton	3	0	0	4	11	0	0	0	329	0	0	248	0	595	0	0	0	224	0	12
13-Dec-05	u/s Culliton	5	0	0	4	0	0	0	0	174	0	5	51	0	512	0	0	0	80	0	3
13-Dec-05	d/s Cheekye	1	0	0	0	0	0	0	0	186	0	14	180	0	98	0	0	0	8	0	8
13-Dec-05	d/s Cheekye	2	0	0	22	0	0	0	0	104	0	52	1438	0	164	0	0	0	120	0	20
13-Dec-05	d/s Cheekye	4	0	0	32	0	0	0	0	84	0	0	1132	0	88	0	0	0	84	0	16
13-Dec-05	d/s Cheekye	5	0	0	0	0	0	0	0	66	0	18	798	0	182	16	0	0	8	0	36

phylum	subphylum	Superclass	class	subclass	infraclass	superorder	order	suborder	Infraorder	superfamily	family	subfamily	tribe	genus	species	comment	Stage	spNum
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera									mayflies	EM	s001
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera										A	s002
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Lanceolata		Leptophlebiidae			Paraleptophlebia			L	s003
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Pannota	Ephemerelloidea	Ephemerellidae					young instar	L	s004
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Pannota	Ephemerelloidea	Ephemerellidae			Caudatella			L	s005
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Pannota	Ephemerelloidea	Ephemerellidae			Drunella	Drunella coloradensis/flaviinea		L	s006
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Pannota	Ephemerelloidea	Ephemerellidae			Drunella	Drunella doddsii/grandis/spinifera		L	s007
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Pannota	Ephemerelloidea	Ephemerellidae			Ephemerella			L	s008
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Furcatergalia	Pannota	Ephemerelloidea	Ephemerellidae			Serratella			L	s009
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Pisciforma			Ameletidae			Ameletus			L	s010
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Pisciforma			Baetidae			Baetis			L	s011
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Pisciforma			Baetidae			Baetis			A	s012
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Setisura			Heptageniidae			Cinygmula			L	s013
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Setisura			Heptageniidae			Epeorus	Epeorus sp1		L	s014
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Setisura			Heptageniidae			Epeorus	Epeorus deceptivus/hesperus		L	s015
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Setisura			Heptageniidae			Ironodes			L	s016
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Setisura			Heptageniidae			Epeorus	Epeorus longimanus		L	s017
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Setisura			Heptageniidae			Heptagenia		first instar	L	s018
Arthropoda	Hexapoda		Insecta	Pterygota	palaeoptera		Ephemeroptera	Setisura			Heptageniidae			Rhithrogena			L	s019

Table 4-2. Number and species of benthic invertebrates in colonization baskets. Order Plecoptera

Date:	Station	Replicate	s020	s021	s022	s023	s024	s025	s026	s027	s028	s029	s030	s031	s032	s033	s034	s035	s036	s037	s038	s039	s040	s041	s042	s043
14-Dec-05	dam	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	1	0	4	0
14-Dec-05	dam	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	3	0
14-Dec-05	dam	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	7	0
14-Dec-05	dam	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	4	0
14-Dec-05	Saltsheds	1	0	0	0	32	0	0	0	0	0	2	0	0	0	0	123	0	0	0	0	0	0	1	22	0
14-Dec-05	Saltsheds	2	0	0	0	10	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0	0	0	0	5	0
14-Dec-05	Saltsheds	3	0	0	0	4	0	0	1	0	0	0	3	0	0	0	61	0	0	0	0	0	0	0	5	0
14-Dec-05	Saltsheds	4	0	0	0	32	0	0	0	0	0	0	0	0	16	0	38	0	0	0	0	0	0	0	6	0
13-Dec-05	u/s Culliton	1	0	0	0	530	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4	0
13-Dec-05	u/s Culliton	2	0	0	0	252	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
13-Dec-05	u/s Culliton	3	0	0	0	259	0	0	4	0	0	0	0	0	0	8	4	0	0	0	0	0	0	0	8	0
13-Dec-05	u/s Culliton	5	0	0	0	202	0	0	0	0	0	1	0	1	4	2	0	0	0	0	0	0	0	0	3	0
13-Dec-05	d/s Cheekye	1	0	0	0	136	0	0	20	0	0	0	0	0	0	8	24	0	0	0	0	0	0	0	22	0
13-Dec-05	d/s Cheekye	2	0	0	0	258	0	0	32	0	0	0	6	0	4	2	8	0	0	0	0	0	0	0	14	0
13-Dec-05	d/s Cheekye	4	0	0	32	168	0	0	64	0	0	0	16	0	4	0	12	0	0	0	0	0	0	4	32	0
13-Dec-05	d/s Cheekye	5	0	0	0	184	0	0	0	0	0	0	10	0	0	0	14	0	0	0	0	0	0	0	18	0

phylum	subphylum	Superclass	class	subclass	infraclass	superorder	order	suborder	Infraorder	superfamily	family	subfamily	tribe	genus	species	comment	Stage	spNum
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera									stoneflies	A	s020
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Capniidae					young instar	L	s021
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Capniidae					younger instar than s	L	s022
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Capniidae	Capniinae		Capnia/mesocapnia/paracapnia			L	s023
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Leuctridae	Leuctrinae		Despaxia/perlomyia			L	s024
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Nemouridae			unidentified genus		spring stoneflies	L	s025
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Nemouridae					young instar	L	s026
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Nemouridae	Amphinenuirinae		Malenka			L	s027
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Nemouridae	Nemourinae		Podmosta			L	s028
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Nemouridae	Nemourinae		Visoka			L	s029
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Nemouridae	Nemourinae		Zapada			L	s030
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Taeniopterygi	Brachypteryginae		Doddsia			L	s031
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Euholognatha			Taeniopterygi	Brachypteryginae		Taenionema			L	s032
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Chloroperlidae					young instar	L	s033
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Chloroperlidae	Chloroperlinae		Suwallia/Sweltsa			L	s034
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlidae			genus unknown			L	s035
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlidae	Acroneuriinae	Acrone	Hesperoperla	Hesperoperla sp1		L	s036
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlidae	Acroneuriinae	Acrone	Hesperoperla	Hesperoperla pacifica		L	s037
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlidae	Acroneuriinae	Acrone	Doroneuria			L	s038
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlodidae					young instar	L	s039
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlodidae	Isoperlinae		Isoperla			L	s040
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlodidae	Perlodinae		Arcync	Megarcys		L	s041
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlodidae	Perlodinae		Diplopi	Cultus		L	s042
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Plecoptera	Systellognatha			Perlodidae	Perlodinae		Diplopi	Kogotus		L	s043

Table 4-3. Number and species of benthic invertebrates in colonization baskets. Order Trichoptera

Date:	Station	Replicate	s044	s045	s046	s047	s048	s049	s050	s051	s052	s053	s054	s055	s056	s057	s058	s059	s060	s061	s062	s063	s064	s065	s066	s067	s068
14-Dec-05	dam	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec-05	dam	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
14-Dec-05	dam	3	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
14-Dec-05	dam	4	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
14-Dec-05	Saltsheds	1	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
14-Dec-05	Saltsheds	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec-05	Saltsheds	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
14-Dec-05	Saltsheds	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
13-Dec-05	u/s Culliton	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec-05	u/s Culliton	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
13-Dec-05	u/s Culliton	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec-05	u/s Culliton	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec-05	d/s Cheekye	1	0	0	0	0	0	4	0	0	0	0	0	0	2	0	0	6	0	0	0	0	0	0	0	6	0
13-Dec-05	d/s Cheekye	2	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	4	0
13-Dec-05	d/s Cheekye	4	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
13-Dec-05	d/s Cheekye	5	0	0	0	0	0	4	2	0	0	0	0	0	16	0	0	2	0	0	0	0	0	0	0	8	0

phylum	subphylum	Superclass	class	subclass	infraclass	superorder	order	suborder	Infraorder	superfamily	family	subfamily	tribe	genus	species	comment	Stage	spNum
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera									very young instar	L	s044
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera									caddisflies	PU	s045
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera										A	s046
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Glossosomatoidea	Glossosomatii	Glossosomatii	Glossoc	Glossosoma			L	s047
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Hydropsychoidea	Hydropsychidae					young instar	L	s048
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Hydropsychoidea	Hydropsychid	Arctopsychinae	Arctopsyche/Parapsyche				L	s049
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Hydropsychoidea	Hydropsychid	Hydropsychinae	Hydropsyche				L	s050
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Hydroptiloidea	Hydroptilidae	Hydroptilinae	Stactol	Stactobiella			L	s051
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Hydropsychoidea	Polycentropodidae					young instar	L	s052
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Hydropsychoidea	Polycentropox	Polycentropodinae	Polycentropus				L	s053
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Apataniidae		Pedomoecus				L	s054
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Brachycentridae		Micrasema				L	s055
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Lepidostomati	Lepidostomatinae	Lepidostoma				L	s056
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Limnephilidae	Dicosmoecinae	Dicosmoecus				L	s057
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Limnephilidae	Dicosmoecinae	Ecclisocosmoecus				L	s058
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Limnephilidae	Dicosmoecinae	Ecclisomyia				L	s059
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Limnephilidae	Dicosmoecinae	Ironoquia				L	s060
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Limnephilidae	Dicosmoecinae	Onocosmoecus				L	s061
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Limnephilidae	Limnephilinae	Chilost	Homophylax			L	s062
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Limnephilidae	Limnephilinae	Chilost	Psychoglypha			L	s063
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Limnephilidae	Limnephilinae	Limnej	Limnephilus			L	s064
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Limnephilidae	Limnephilinae	Stenoj	Chyrandra			L	s065
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Limnephiloidea	Uenoidea	Thremmatinae	Oligophlebodes				L	s066
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Rhyacophiloidea	Rhyacophilidae		Rhyacophila				L	s067
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Trichoptera			Rhyacophiloidea	Rhyacophilidae		Rhyacophila				PU	s068

Table 4-4. Number and species of benthic invertebrates in colonization baskets, Order Diptera

Date:	Station	Replicate	s069	s070	s071	s072	s073	s074	s075	s076	s077	s078	s079	s080	s081	s082	s083	s084	s085	s086	s087	s088	s089	s090	s091	s092	s093	s094	s095	s096	s097	s098	s099	
14-Dec-05	dam	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec-05	dam	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec-05	dam	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec-05	dam	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec-05	Saltsheds	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec-05	Saltsheds	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec-05	Saltsheds	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec-05	Saltsheds	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	138	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec-05	u/s Culliton	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	410	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec-05	u/s Culliton	2	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	244	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec-05	u/s Culliton	3	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	312	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec-05	u/s Culliton	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	1	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec-05	d/s Cheekye	1	0	0	0	0	0	4	8	0	0	0	0	0	0	0	0	0	0	1326	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec-05	d/s Cheekye	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3170	2	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec-05	d/s Cheekye	4	0	0	0	0	0	36	0	0	0	0	0	0	0	0	0	0	0	2708	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec-05	d/s Cheekye	5	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1804	18	0	0	0	0	0	0	0	0	0	0	0	0	0

phylum	subphylum	Superclass	class	subclass	infraclass	superorder	order	suborder	Infraorder	superfamily	family	subfamily	tribe	genus	species	comment	Stage	spNum
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera									gnats, mosquitoes	L	s069
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera										PU	s070
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera										A	s071
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Empididae					balloon flies, dance fl	L	s072
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Empididae					balloon flies, dance fl	PU	s073
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Empididae	Hemerodromi	Hemer era				L	s074
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Empididae	Clinocerinae	Clinocera/Trichoclinocera				L/PU	s075
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Empididae	Clinocerinae	Wiedemannia/Oreogeton				L	s076
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Empididae	Empidinae	Rhaphomyia				L	s077
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Empididae	Hemerodromi	Hemer Hemerodromia				PU	s078
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Brachycera	Muscomorpha		Ephydriidae					brine flies, shore flies	L	s79
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Blephariceromorpha		Blephariceridae					net-winged midges	L	s80
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Blephariceromorpha		Blepharicerid:	Blepharicerin:	Blepha us				L	s81
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Ceratopogonidae						L	s82
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Ceratopogonii	Ceratopogonii	Palpon	Bezzia/Probezzia			L	s83
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Ceratopogonii	Forcipomyiinae	Atrichopogon				L	s84
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Ceratopogonii	Forcipomyiinae	Forcipomyia				PU	s85
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae					midges	L	s86
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae					midges	PU	s87
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae					midges	EM	s88
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Chironominae	Chiron	genus unknown			L	s89
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Chironominae	Chironomini			young instar	L	s90
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Chironominae	Chiron	Stictochironomus/Phaenopsectra			L	s91
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Chironominae	Chiron	edilu			L	s92
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Chironominae	Tanyta	arsus			L	s93
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Diamesinae	Diame	Diamesa			L	s94
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Diamesinae	Diame	Diamesa			L	s95
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Diamesinae	Diame	tia			L	s96
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Diamesinae	Diame	Pseudodiamesa			L	s97
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Diamesinae	Diame	Pseudokiefferiella			L	s98
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Diamesinae	Diame	Sympothastia			L	s99

Table 4-4. Number and species of benthic invertebrates in colonization baskets, Order Diptera

Date:	Station	Replicate	s100	s101	s102	s103	s104	s105	s106	s107	s108	s109	s110	s111	s112	s113	s114	s115	s116	s117	s118	s119	s120	s121	s122	s123	s124	s125	s126	s127	s128	s129	s130	s131	s132	s133			
14-Dec-05	dam	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14-Dec-05	dam	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14-Dec-05	dam	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec-05	dam	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
14-Dec-05	Saltsheds	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
14-Dec-05	Saltsheds	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14-Dec-05	Saltsheds	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec-05	Saltsheds	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec-05	u/s Culliton	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	26	0	0	4	0	0	4	0	0	0	0	
13-Dec-05	u/s Culliton	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0	2	0	0	0	0	0	0	0	
13-Dec-05	u/s Culliton	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13-Dec-05	u/s Culliton	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec-05	d/s Cheekye	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	26	0	0	0	0	2	6	0	0	0	0	
13-Dec-05	d/s Cheekye	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	0	4	0	0	0	0	0	4	0	0	0	0	
13-Dec-05	d/s Cheekye	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	16	0	0	0	0	0	8	0	0	0	0	
13-Dec-05	d/s Cheekye	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	4	0	0	0	0	2	6	0	0	0	0	

phylum	subphylum	Superclass	class	subclass	infraclass	superorder	order	suborder	Infraorder	superfamily	family	subfamily	tribe	genus	species	comment	Stage	spNum
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae				young instar	L	s100
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		Brillia			L	s101
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		genus unknown			L	s102
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		Corynoneura			L	s103
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		Cricotopus/Orthocladius			L	s104
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		Doncricotopus			L	s105
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		feriell			L	s106
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		1			L	s107
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		2			L	s108
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		ottriss			L	s109
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		1			L	s110
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		2			L	s111
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		3			L	s112
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		smiti			L	s113
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		cnem			L	s114
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		Orthocladius	Orthocladius oliveri		L	s115
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		eman			L	s116
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Orthocladiinae		Tvetenia			L	s117
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Prodiamesinae		Monodiamesa			L	s118
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Chironomidae	Tanypodinae		Pentar	Conchapelopia		L	s119
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Simuliidae						PU	s120
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Simuliidae						A	s121
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Simuliidae	Simuliinae	Prosimr	Prosimulium			L	s122
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Culicomorpha		Simuliidae	Simuliinae	Simulii	Simulium			L	s123
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Psychodomorpha		Psychodidae	Psychodinae		ma			L	s124
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Limoniinae	Eriopte	Hesperoconop			L	s125
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Limoniinae	Eriopte	Ormosia			L	s126
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Limoniinae	Eriopte	Rhabdomastix			L	s127
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Limoniinae	Hexatc	oma			L	s128
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Limoniinae	Hexatc	phila			L	s129
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Limoniinae	Limoni	Antocha			L	s130
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Limoniinae	Pedicii	nota			L	s131
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Limoniinae	Pedicii	a			L	s132
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Diptera	Nematocera	Tipulomorpha		Tipulidae	Tipulinae		Tipula			L	s133

Table 4-5. Number and species of benthic invertebrates in colonization baskets, other Orders

Date:	Station	Replicate	s134	s135	s136	s137	s138	s139	s140	s141	s142	s143	s144	s145	s146	s147	s148	s149	s150	s151	s152	s153	s154	s155	s156	s157	s158	s159	s160	s161	s162	s163	s164	s165	s166	s167	s168	s169	s170	s171	s172			
14-Dec-05	dam	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14-Dec-05	dam	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec-05	dam	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec-05	dam	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14-Dec-05	Saltsheds	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
14-Dec-05	Saltsheds	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14-Dec-05	Saltsheds	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14-Dec-05	Saltsheds	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
13-Dec-05	u/s Culliton	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13-Dec-05	u/s Culliton	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13-Dec-05	u/s Culliton	3	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13-Dec-05	u/s Culliton	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13-Dec-05	d/s Cheekye	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13-Dec-05	d/s Cheekye	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	
13-Dec-05	d/s Cheekye	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13-Dec-05	d/s Cheekye	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

phylum	subphylum	Superclass	class	subclass	infraclass	superorder	order	suborder	Infraorder	superfamily	family	subfamily	tribe	genus	species	comment	Stage	spNum
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Coleoptera	Adephaga			Dytiscidae					predaceous diving beetles		s134
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Coleoptera	Polyphaga	Cucujiformia	Curculionoidea	Curculionidae					snout beetles, weevil	ACC	s135
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Coleoptera	Polyphaga	Elateriformia	Byrrhoidea	Elmidae					ants, bees	A	s136
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Hemiptera	Sternorrhyncha		Aphidoidea	Aphididae					aphids, plantlice	ACC	s137
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Hymenoptera									ants, bees	A	s138
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera		Lepidoptera									butterflies moths		s139
Arthropoda	Hexapoda		Insecta	Pterygota	Neoptera	Neuropterida	Neuroptera		Hemerobiiformia		Hemerobiidae					brown lacewings	ACC	s140
Arthropoda	Hexapoda		Entognatha				Collembola				Isotomidae					snow flies, springtails		s141
Arthropoda	Hexapoda		Entognatha				Collembola				Sminthuridae							s142
Arthropoda	Hexapoda		Entognatha				Collembola											s143
Arthropoda	Chelicerata		Arachnida	Acarina												chiggers, mites		s144
Arthropoda	Chelicerata		Arachnida	Acarina											"HYDRACARINA"-juvenile		J	s145
Arthropoda	Chelicerata		Arachnida	Acarina			Acariformes	Prostigmata			Arrenuridae			Arrenurus/Neumania				s146
Arthropoda	Chelicerata		Arachnida	Acarina			Acariformes	Prostigmata			Hygrobatidae			Hygrobates				s147
Arthropoda	Chelicerata		Arachnida	Acarina			Acariformes	Prostigmata			Lebertiidae			Lebertia				s148
Arthropoda	Chelicerata		Arachnida	Acarina			Acariformes	Prostigmata			Protziidae			Wandesia				s149
Arthropoda	Chelicerata		Arachnida	Acarina			Acariformes	Prostigmata			Sperchonidae			Sperchon/Sperchonopsis				s150
Arthropoda	Chelicerata		Arachnida	Acarina			Acariformes	Prostigmata			Thysidae			Paniscus				s151
Arthropoda	Chelicerata		Arachnida	Acarina			Acariformes	Prostigmata			Torrenicolidae			genus 1				s152
Arthropoda	Chelicerata		Arachnida	Acarina			Acariformes	Prostigmata			Torrenicolidae			Testudacarus				s153
Arthropoda	Chelicerata		Arachnida	Acarina			Acariformes	Prostigmata			Torrenicolidae			Torrenicola				s154
Arthropoda	Crustacea		Malacostraca	Eumalacostraca	Peracarida		Amphipoda	Gammaridea			Crangonyctidae			Crangonyx				s155
Arthropoda	Crustacea		Ostracoda													ostracods		s156
Annelida			Citellata	Hirudinae	Euhirudinea		Rhynchobdellida				Piscicolidae	Piscicolinae		Piscicola				s157
Annelida			Citellata	Oligochaeta			Haplotaxida	Lumbricina			Lumbricidae							s158
Annelida			Citellata	Oligochaeta			Haplotaxida	Tubificina			Enchytraeidae							s159
Annelida			Citellata	Oligochaeta			Haplotaxida	Tubificina			Naididae			genus 1				s160
Annelida			Citellata	Oligochaeta			Haplotaxida	Tubificina			Naididae			Chaetogaster				s161
Annelida			Citellata	Oligochaeta			Haplotaxida	Tubificina			Naididae			Nais				s162
Annelida			Citellata	Oligochaeta			Haplotaxida	Tubificina			Tubificidae						J	s163
Annelida			Citellata	Oligochaeta			Lumbriculida				Lumbriculidae			genus 1			J	s164
Annelida			Citellata	Oligochaeta			Lumbriculida				Lumbriculidae			Eiseniella				s165
Cnidaria			Hydrozoa				Hydrida	Hydrida			Hydridae			Hydra				s166
Ectoprocta			Gymnolaemata				Ctenostomata	Carnosa		Paludicelloidea	Arachnididae					spiders		s167
Mollusca			Bivalvia	Heterodonta			Veneroida			Corbiculoidea	Pisidiidae			Pisidium				s168
Mollusca			Bivalvia	Heterodonta			Veneroida			Corbiculoidea	Pisidiidae			Sphaerium				s169
Nemata															unidentified NEMATODES	nematode		s170
Platyhelminthes			Turbellaria	Archoophora			Tricladida				Planariidae			elis	sp1			s171
Platyhelminthes			Turbellaria	Archoophora			Tricladida				Planariidae			elis	Polycelis coronata			s172

## **APPENDIX 5**

# **WATER QUALITY MEASUREMENTS FROM COLONIZATION BASKET STUDY, 2005**

This page has been intentionally left blank for two sided printing

**Table 5-1. Summary of water chemistry measurements by location during colonization basket sampling, 2005**

Date	Station	Season	InST	Cond	TDS	pH	Turbidity	NH3	NO3	TN	SRP	TP	TDP	PP	DO
02-Nov-05	d/s Daisy lake dam	Fall	7.02	45	29	6.29	2.6	12.5	54.0	140	1.3	6.1	2.9	3.2	12.41
08-Nov-05	d/s Daisy lake dam	Fall	5.86	49	32	6.19	1.4	.	.	.	.	.	.	.	12.06
15-Nov-05	d/s Daisy lake dam	Fall	4.63	49	32	5.90	2.1	.	.	.	.	.	.	.	12.63
22-Nov-05	d/s Daisy lake dam	Fall	4.03	52	34	5.60	1.2	.	.	.	.	.	.	.	12.56
29-Nov-05	d/s Daisy lake dam	Fall	3.33	56	36	6.01	1.2	.	.	.	.	.	.	.	12.80
06-Dec-05	d/s Daisy lake dam	Fall	2.01	59	38	6.04	0.7	.	.	.	.	.	.	.	13.42
14-Dec-05	d/s Daisy lake dam	Fall	2.03	61	40	7.52	0.9	32.7	96.9	210	0.9	6.3	3.6	2.7	14.06
02-Nov-05	saltsheds	Fall	7.12	46	30	6.83	2.0	5.8	44.9	120	1.2	7.0	3.4	3.6	11.98
08-Nov-05	saltsheds	Fall	6.03	49	32	6.85	1.1	.	.	.	.	.	.	.	12.00
15-Nov-05	saltsheds	Fall	5.10	49	32	6.54	1.5	.	.	.	.	.	.	.	12.24
22-Nov-05	saltsheds	Fall	4.45	50	32	6.39	0.9	.	.	.	.	.	.	.	12.41
29-Nov-05	saltsheds	Fall	4.00	54	35	6.73	0.7	.	.	.	.	.	.	.	12.46
06-Dec-05	saltsheds	Fall	3.34	55	36	6.66	0.4	.	.	.	.	.	.	.	12.51
14-Dec-05	saltsheds	Fall	3.24	56	37	7.46	0.6	6.7	56.1	100	2.5	5.6	5.8	-0.2	13.81
03-Nov-05	u/s Culliton	Fall	7.19	46	30	7.50	1.3	5.6	43.7	110	1.6	5.6	3.3	2.2	12.08
08-Nov-05	u/s Culliton	Fall	6.45	50	33	7.01	0.9	.	.	.	.	.	.	.	11.96
15-Nov-05	u/s Culliton	Fall	5.50	50	33	6.90	1.2	.	.	.	.	.	.	.	12.61
22-Nov-05	u/s Culliton	Fall	4.98	50	33	6.84	0.7	.	.	.	.	.	.	.	12.65
29-Nov-05	u/s Culliton	Fall	4.18	55	36	6.95	0.6	.	.	.	.	.	.	.	12.85
06-Dec-05	u/s Culliton	Fall	3.67	58	38	6.87	0.4	.	.	.	.	.	.	.	13.23
13-Dec-05	u/s Culliton	Fall	4.16	58	38	6.92	0.3	4.4	66.0	110	2.4	5.6	5.5	0.1	13.68
03-Nov-05	d/s Cheekye	Fall	7.15	67	44	7.37	2.9	26.3	57.1	170	4.1	18.9	7.0	11.9	12.15
08-Nov-05	d/s Cheekye	Fall	6.43	75	49	7.13	3.6	.	.	.	.	.	.	.	11.85
15-Nov-05	d/s Cheekye	Fall	5.62	76	49	7.00	2.0	.	.	.	.	.	.	.	12.23
22-Nov-05	d/s Cheekye	Fall	5.38	77	50	6.95	1.6	.	.	.	.	.	.	.	12.36
29-Nov-05	d/s Cheekye	Fall	4.20	84	55	6.98	1.5	.	.	.	.	.	.	.	12.55
06-Dec-05	d/s Cheekye	Fall	4.00	91	59	6.98	1.0	.	.	.	.	.	.	.	12.97
13-Dec-05	d/s Cheekye	Fall	3.83	96	62	5.94	2.1	48.3	72.6	190	8.6	17.9	12.0	5.9	13.74

Column heading	Description
InST	instantaneous temperature (C)
Cond	conductivity (uS/cm)
TDS	total dissolved solids (mg/L)
pH	pH
Turbidity	turbidity (NTU)
NH3	NH3-N (ug/L)
NO3	NO3-N (ug/L)
TN	total nitrogen (ug/L)
SRP	soluble reactive N (ug/L)
TP	total phosphorus (ug/L)
TDP	total dissolved phosphorus (ug/L)
PP	particulate phosphorus (ug/L)
DO	dissolved oxygen (mg/L)

**Table 5-2. Mean daily water temperature by site, during colonization basket sampling, 2005**

Date	Mean daily temperature (C)			
	d/s Daisy Lake Dam	Sandsheds	u/s Culliton	d/s Cheekye
02-Nov-05	6.79	6.98		
03-Nov-05	6.56	6.72	7.23	7.35
04-Nov-05	6.24	6.41	6.98	7.12
05-Nov-05	6.21	6.41	6.95	7.08
06-Nov-05	6.06	6.32	6.84	7.03
07-Nov-05	5.87	6.13	6.59	6.74
08-Nov-05	5.77	6.06	6.52	6.65
09-Nov-05	5.69	6.13	6.62	6.89
10-Nov-05	5.63	6.02	6.71	6.94
11-Nov-05	5.39	5.64	6.15	6.35
12-Nov-05	5.14	5.44	6.01	6.21
13-Nov-05	4.82	5.22	5.81	6.12
14-Nov-05	4.63	5.00	5.52	5.76
15-Nov-05	4.58	5.09	5.54	5.75
16-Nov-05	4.55	5.25	5.77	6.16
17-Nov-05	4.39	5.01	5.60	5.89
18-Nov-05	4.41	5.13	5.74	6.14
19-Nov-05	4.33	4.97	5.74	6.11
20-Nov-05	4.25	4.89	5.60	6.01
21-Nov-05	4.14	4.75	5.42	5.86
22-Nov-05	4.06	4.59	5.18	5.62
23-Nov-05	3.97	4.49	4.95	5.32
24-Nov-05	3.89	4.46	4.90	5.32
25-Nov-05	3.93	4.80	5.41	5.97
26-Nov-05	3.85	4.46	5.04	5.38
27-Nov-05	3.72	4.23	4.65	4.77
28-Nov-05	3.54	3.86	4.22	4.19
29-Nov-05	3.29	3.82	4.23	4.30
30-Nov-05	3.10	2.96	4.13	4.25
01-Dec-05	2.58	3.24	3.37	3.31
02-Dec-05	2.39	3.17	3.33	3.30
03-Dec-05	2.12	3.00	3.19	3.13
04-Dec-05	2.00	3.06	3.19	3.13
05-Dec-05	2.13	3.46	3.63	3.73
06-Dec-05	2.04	3.39	3.74	4.07
07-Dec-05	1.99	3.27	3.49	3.78
08-Dec-05	1.92	2.09	3.28	3.55
09-Dec-05	2.08		3.92	4.17
10-Dec-05	2.11		4.04	4.34
11-Dec-05	2.06		3.88	4.04
12-Dec-05	2.20		3.80	3.98
13-Dec-05	2.37		4.11	4.08
14-Dec-05	2.12			
<b>Min</b>	<b>1.92</b>	<b>2.09</b>	<b>3.19</b>	<b>3.13</b>
<b>Max</b>	<b>6.79</b>	<b>6.98</b>	<b>7.23</b>	<b>7.35</b>
<b>Avg</b>	<b>3.93</b>	<b>4.76</b>	<b>5.05</b>	<b>5.26</b>

## **APPENDIX 6**

### **ANALYSIS OF VARIANCE RESULTS FROM COLONIZATION BASKET BIOMASS DATA**

This page has been intentionally left blank for two sided printing

**Two Factor, One Way Analyses of Variance (ANOVA) to compare biomass of benthic invertebrate taxa groups sampled in 2000 and 2005 colonization baskets. Also tested are the microbenthos (<1 mm maximum dimension) pooled across all taxa groups.**

## 1.0 MAYFLIES

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

YEAR (2 levels)

2000, 2005

LOCATION (4 levels)

1, 2, 3, 4

Dep Var: LOGEPH N: 28 Multiple R: 0.843 Squared multiple R: 0.710

Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
YEAR	1.525	1	1.525	16.171	0.001
LOCATION	1.525	3	0.508	5.390	0.007
YEAR*LOCATION	1.183	3	0.394	4.182	0.019
Error	1.886	20	0.094		

## 2.0 DIPTERA

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

YEAR (2 levels)

2000, 2005

LOCATION (4 levels)

1, 2, 3, 4

Dep Var: LOGDIPT N: 28 Multiple R: 0.834 Squared multiple R: 0.695

Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
YEAR	7.052	1	7.052	14.984	0.001
LOCATION	4.997	3	1.666	3.539	0.033
YEAR*LOCATION	8.223	3	2.741	5.824	0.005
Error	9.413	20	0.471		

### 3.0 STONEFLIES

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

YEAR (2 levels)

2000, 2005

LOCATION (4 levels)

1, 2, 3, 4

Dep Var: LOGPLEC N: 28 Multiple R: 0.784 Squared multiple R: 0.615

Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
YEAR	1.909	1	1.909	15.031	0.001
LOCATION	1.879	3	0.626	4.932	0.010
YEAR*LOCATION	0.369	3	0.123	0.968	0.427
Error	2.540	20	0.127		

### 4.0 MICROBENTHOS

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

YEAR (2 levels)

2000, 2005

LOCATION (4 levels)

1, 2, 3, 4

Dep Var: LOGMIC N: 28 Multiple R: 0.844 Squared multiple R: 0.713

Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
YEAR	1.964	1	1.964	21.676	0.000
LOCATION	1.276	3	0.425	4.693	0.012
YEAR*LOCATION	1.132	3	0.377	4.164	0.019
Error	1.813	20	0.091		

## 5.0 ALL TAXA GROUPS

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

YEAR (2 levels)

2000, 2005

LOCATION (4 levels)

1, 2, 3, 4

Dep Var: LOGTOT N: 28 Multiple R: 0.829 Squared multiple R: 0.687

Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
YEAR	0.470	1	0.470	6.767	0.017
LOCATION	1.907	3	0.636	9.151	0.001
YEAR*LOCATION	0.569	3	0.190	2.732	0.071
Error	1.389	20	0.069		

-----

## **APPENDIX 7**

### **OUTPUT FROM ANALYSIS OF SIMILARITIES FOR SITE BLOCKS AND WEEK BLOCKS**

*Examines Site Block groups**(across all Week Block groups)**Group 1 (CHK01)*

Average Bray-Curtis similarity: 69.12

Species abbreviations: Hepta = Heptageniidae, Epheme = Ephemerilidae, Simuli = Simuliidae,

Species	Av.Abund	Av.Sim	Sim/SD	Contrib%	Cum.%
Baetidae	0.40	39.57	3.18	57.25	57.25
Hepta	0.17	15.31	1.62	22.15	79.40
Ephemer	0.14	12.56	1.96	18.17	97.57

*Group 2 (CHK01A, CHK02, CHK03)*

Average Bray-Curtis similarity: 68.16

Species	Av.Abund	Av.Sim	Sim/SD	Contrib%	Cum.%
Baetidae	0.51	45.77	3.37	67.15	67.15
Ephemer	0.15	11.28	1.40	16.55	83.70
Simuli	0.11	5.92	0.98	8.69	92.39

*Group 3 (CHK04, CHK05, CHK06)*

Average Bray-Curtis similarity: 58.46

Species	Av.Abund	Av.Sim	Sim/SD	Contrib%	Cum.%
Baetidae	0.37	32.95	1.38	56.36	56.36
Ephemer	0.14	14.99	1.38	25.64	82.01
Hepta	0.06	6.20	1.40	10.61	92.61

*Groups 1 & 2*

Average dissimilarity = 31.02

	Group 1	Group 2				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Baetidae	0.40	0.51	9.80	1.46	31.59	31.59
Hepta	0.17	0.09	8.39	1.60	27.05	58.63
Simuli	0.08	0.11	6.35	1.11	20.48	79.12
Ephemer	0.14	0.15	5.58	1.45	17.97	97.09

*Groups 1 & 3*

Average dissimilarity = 37.42

	Group 1	Group 3				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Baetidae	0.40	0.37	15.59	1.18	41.66	41.66
Hepta	0.17	0.06	8.52	1.58	22.76	64.42
Ephemer	0.14	0.14	6.22	0.92	16.63	81.04

Simuli	0.08	0.03	5.48	0.95	14.64	95.69
--------	------	------	------	------	-------	-------

*Groups 2 & 3*

Average dissimilarity = 38.96

	Group 2	Group 3				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Baetidae	0.51	0.37	17.76	1.07	45.59	45.59
Ephemer	0.15	0.14	7.42	1.14	19.04	64.63
Simuli	0.11	0.03	6.34	0.92	16.27	80.90
Hepta	0.09	0.06	6.02	0.91	15.46	96.36

*Examines Week Block groups**(across all Site Block groups)**Group 1 (First 2 sampling sessions)*

Average similarity: 63.44

Species	Av.Abund	Av.Sim	Sim/SD	Contrib%	Cum.%
Baetidae	0.42	40.98	1.65	64.59	64.59
Ephemer	0.10	13.96	1.08	22.00	86.60
Simuli	0.08	6.95	1.09	10.96	97.55

*Group 2 (Last 3 sampling sessions)*

Average similarity: 63.56

Species	Av.Abund	Av.Sim	Sim/SD	Contrib%	Cum.%
Baetidae	0.43	38.70	2.15	60.89	60.89
Ephemer	0.18	12.76	1.62	20.08	80.97
Hepta	0.14	7.46	1.00	11.73	92.70

*Groups 1 & 2*

Average dissimilarity = 39.96

	Group 1	Group 2				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Baetidae	0.42	0.43	17.30	1.08	43.30	43.30
Ephemer	0.10	0.18	8.09	0.89	20.25	63.55
Hepta	0.02	0.14	7.97	1.08	19.95	83.50
Simuli	0.08	0.06	4.69	1.11	11.75	95.25