

## Physical and Chemical Analysis Data Form

Waterwatch Melbourne Physical and Chemical Analysis

### Monitoring site details

Site code: **006**

Site description: **Robblebank Point**

### Name of monitoring group

Persons monitoring: **Elaine, Stephanie Lucy Burr John B, John S. Su, Anne**

Date and time of monitoring: **5.2.17**

\* Andrew S & Hilary & Andy & Visit.

Please record your data below:

Parameter	Reading	Comments
Air Temperature	25.7 °C	
Water Temperature	22.5 °C	
Turbidity	92 RTU / Unit	
pH	6.5	
Conductivity	240 µS / cm	
Dissolved Oxygen	0.7 mg/L	5% % Saturation
Phosphate <small>(If using Lamotte Smart2 Colorimeter multiply by 0.326 to calculate mg/L)</small>	0.02 x 0.326 = 0.007	
Ammonium	0 mg / L	
Nitrate	mg / L	

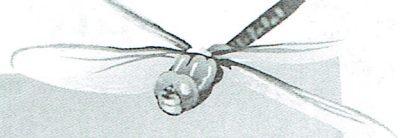
### Observations and Notes:

What has changed since last time you monitored? **Level seems a little higher. Clay colored**

What stands out about the site today? **New grass on Cumbungi**

Other observations: **Possible traps attached to fallen log? over entrance to main body of Lake.**

**Horde of Ravens disturbed & flying around.**



## Physical and Chemical Analysis Data Form

### Waterway Information

#### Rate of flow:

- Very fast
- None

- Fast
- Permanent

- Normal base flow
- Temporary

- Slow
- Other

- Trickle

If 'Other', please specify:

#### Type of flow:

- Rising

- Steady

- Falling

- Peak

- Dry

- Pools / Puddles

- Other

If 'Other', please specify:

#### Waterway Appearance:

- Clear
- Oily

- Muddy

- Discoloured

- Smelly

- Milky

- Frothy

- Stained brown

- Scummy

- Other

If 'Other', please specify: *Road / rail separation work, clay coloured. / milky? edges.*

Waterway depth: 1.1 cm (0 to 3000cm)

Waterway width: \_\_\_\_\_ m (0 to 100m)

#### Weather:

- Sunny
- Hail

- Cloudy

- Windy

- Overcast

- Foggy

- Showers

- Other

- Rain

If 'Other', please specify:

*occasional gusts of wind.*

#### Last rainfall:

- Raining now

- Last 24hrs

- Last 3 days

- Last 7 days

- More than a week ago

#### Litter / Pollutants (record no.):

\_\_\_ Cans

\_\_\_ Food Packets

\_\_\_ Waxed Cardboard

\_\_\_ Paper

\_\_\_ Plastic

\_\_\_ Bottles

\_\_\_ Clothing

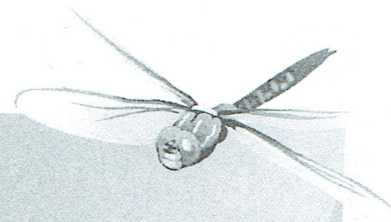
Polystyrene

\_\_\_ Petrol/Diesel (m<sup>2</sup>)

\_\_\_ Oil (m<sup>2</sup>)

\_\_\_ Car bodies

\_\_\_ Other (specify)



## Physical and Chemical Analysis Data Form

Waterwatch Melbourne Physical and Chemical Analysis

### Monitoring site details

Site code: **YGR 020**

Site description: **The Landing**

### Name of monitoring group

Persons monitoring:

Date and time of monitoring: **5-2-2017 10.30.**

Please record your data below:

Parameter	Reading	Comments
Air Temperature	25 °C	
Water Temperature	24.2 °C	
Turbidity	35 FTU	
pH	7.1 Unit	
Conductivity	160 µS / cm	
Dissolved Oxygen	La Motte 5.4 / 6 mg / L	69% Saturation
Phosphate <small>(If using Lamotte Smart2 Colorimeter multiply by 0.326 to calculate mg/L)</small>	La Motte 0 mg / L	
Ammonium	Visocol. 0 mg / L	
Nitrate	mg / L	

### Observations and Notes:

What has changed since last time you monitored?

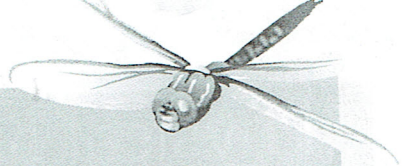
More debris from rain storms

What stands out about the site today?

Lots of ducks -> pacific black ducks, dusky moorhen.

Other observations:

lots of gum flowers floating in water



## Physical and Chemical Analysis Data Form

### Waterway Information

#### Rate of flow:

- Very fast
- None
- Fast
- Permanent

If 'Other', please specify:

- Normal base flow
- Temporary

- Slow
- Other
- Trickle

#### Type of flow:

- Rising
- Steady
- Falling

If 'Other', please specify:

*None*

- Peak

- Dry

- Pools / Puddles

- Other

#### Waterway Appearance:

- Clear
- Oily
- Muddy
- Discoloured

If 'Other', please specify:

- Smelly
- Milky

- Frothy
- Stained brown

- Scummy
- Other

Waterway depth: 0.8 m cm (0 to 3000cm)

Waterway width: ~ 14 m (0 to 100m)

*80 cm*

#### Weather:

- Sunny
- Hail
- Cloudy
- Windy

If 'Other', please specify:

- Overcast
- Foggy

- Showers
- Other

- Rain

#### Last rainfall:

- Raining now
- Last 24hrs

- Last 3 days

- Last 7 days

- More than a week ago

#### Litter / Pollutants (record no.):

- Cans
- Food Packets
- Waxed Cardboard

- Paper
- 2 Plastic
- 1 Bottles

- Clothing
- Polystyrene
- Petrol/Diesel (m<sup>2</sup>)

- Oil (m<sup>2</sup>)
- Car bodies
- Other (specify)

*Minimal rubbish.*

## Observation Information

### Monitoring site details

Site code: YGR 020

Site description: The Landing

Name of monitoring group: \_\_\_\_\_

Persons monitoring: \_\_\_\_\_

Date & time of monitoring: 5-2-2017

## Habitat Assessment

Bank vegetation: 6 (0 to 10)

Verge vegetation: 4 (0 to 10)

In-stream cover: 6 (0 to 10)

Bank erosion & stability: 2 (0 to 5)

Riffles, pools and bends: 3 (0 to 5)

Final Habitat Score: 21 (Add your scores)

Score	Definition
<i>Excellent (36 - 40):</i>	Site in natural or virtually natural condition; excellent habitat condition.
<i>Good (29 - 35):</i>	Some alteration from natural state; good habitat conditions.
<i>Fair (20 - 28):</i>	Significant alteration from the natural state but still offering moderate habitat; stable.
<i>Poor (12 - 19):</i>	Significant alterations from the natural state, with reduced habitat value; may have erosion or sedimentation problems.
<i>Degraded (8 - 11):</i>	Very degraded, often with severe erosion or sedimentation problems.

**Bank Vegetation**

<b>(10)</b>	<b>(8)</b>	<b>(6)</b>	<b>(4)</b>	<b>(2)</b>
Mainly undisturbed native vegetation. No signs of site alteration.	Mainly native vegetation. Little disturbance or no signs of recent site disturbance.	Medium cover, mixed native / introduced. Or one side cleared, the other undisturbed. ✓	Introduced ground cover, little native understorey or overstorey, predominantly introduced vegetation.	Introduced ground cover with lots of bare ground, occasional tree. Also includes sites with concrete-lined channels.

**Verge Vegetation**

<b>(10)</b>	<b>(8)</b>	<b>(6)</b>	<b>(4)</b>	<b>(2)</b>
Mainly undisturbed native vegetation on both sides of stream. Verge more than 30 m wide.	Well-vegetated wide verge corridor. Mainly undisturbed native vegetation on both sides of stream; some introduced or reduced cover of native vegetation.	Wide corridor of mixed native and exotics, or one side cleared, and other wide corridor of native vegetation. ✓	Very narrow corridor of native or introduced vegetation.	Bare cover or introduced grass cover such as pasture land.

**In-stream cover**

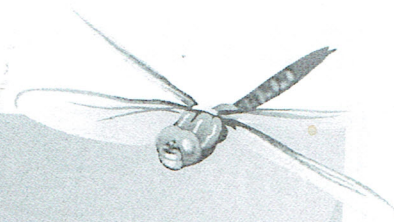
<b>(10)</b>	<b>(8)</b>	<b>(6)</b>	<b>(4)</b>	<b>(2)</b>
Abundant cover. Frequent snags, logs or boulders with extensive areas of in-stream, aquatic vegetation and overhanging bank.	A good cover of snags, logs or boulders, with considerable areas of in-stream and overhanging vegetation.	Some snags or boulders present and / or occasional areas of in-stream or overhanging vegetation. ✓	Only slight cover. The stream is largely cleared, with occasional snags and very little in-stream vegetation. Generally no overhanging vegetation.	No cover. No snags, boulders submerged or overhanging vegetation. No undercut banks. Site may have rock or concrete lining.

**Bank erosion and stability**

<b>(5)</b>	<b>(4)</b>	<b>(3)</b>	<b>(2)</b>	<b>(1)</b>
Stable; no erosion / sedimentation evident. No undercutting of banks, usually gentle bank slopes, lower banks covered with root mat grasses, reeds or shrubs.	Only spot erosion occurring. Little undercutting of bank, good vegetation cover, usually gentle bank slopes, no significant damage to bank structure.	Localised erosion evident. A relatively good vegetation cover. No continuous damage to bank structure or vegetation.	Significant active erosion evident especially during high flows. Unstable, extensive areas of bare banks, little vegetation cover. ✓	Extensive or almost continuous erosion. Over 50% of banks have some form of erosion; very unstable with little vegetation cover.

**Riffles, Pools and Bends (flowing water only)**

<b>(5)</b>	<b>(4)</b>	<b>(3)</b>	<b>(2)</b>	<b>(1)</b>
Wide variety of habitats. Riffles and pools present of varying depths. Bends present. Good	Good variety of habitats - e.g., riffles and pools or bends and pools. Variation in depth of riffle and pool.	Some variety of habitat - e.g., occasional riffle or bend. Some variation in depth. ✓	Only slight variety of habitat. All riffle or pool with only slight variation in depth. Very poor	Uniform habitat. Straight stream, all shallow riffle or pool of uniform depth - e.g.; channelled stream or irrigation channel.



## Physical and Chemical Analysis Data Form

Waterwatch Melbourne Physical and Chemical Analysis

### Monitoring site details

Site code: YGR 023  
 Site description: Heron Pt.

Name of monitoring group

Persons monitoring:

Date and time of monitoring: 5-2-2017 11 AM

NB Changed over P. chems for next month

Please record your data below:

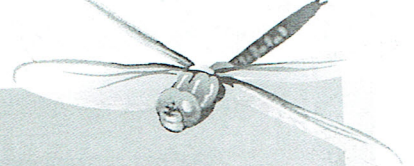
Parameter	Reading	Comments
Air Temperature	27°C °C	
Water Temperature	24.7 °C	
Turbidity	27 FTU FTU	
pH	7.8 Unit	
Conductivity	160 µS/cm	
Dissolved Oxygen	La Motte ✓ 6.9 / 7 mg/L	85% % Saturation
Phosphate (If using Lamotte Smart2 Colorimeter multiply by 0.326 to calculate mg/L)	0.01 x 0.326 = 0.003 mg/L	Visocolour.
Ammonium	0 mg/L	Visocol.
Nitrate	mg/L	

### Observations and Notes:

What has changed since last time you monitored?

What stands out about the site today?

Other observations:



## Physical and Chemical Analysis Data Form

### Waterway Information

#### Rate of flow:

- Very fast
- None
- Fast
- Permanent

If 'Other', please specify:

- Normal base flow
- Temporary
- Slow
- Other
- Trickle

#### Type of flow:

- Rising
- Steady
- Falling
- Peak
- Dry
- Pools / Puddles
- Other

If 'Other', please specify:

#### Waterway Appearance:

- Clear
- Oily
- Muddy
- Discoloured
- Smelly
- Milky
- Frothy
- Stained brown
- Scummy
- Other

If 'Other', please specify:

Waterway depth: 1300 mm (0 to 3000cm)  
 Waterway width: \_\_\_\_\_ m (0 to 100m)

130 cm

#### Weather:

- Sunny
- Hail
- Cloudy
- Windy
- Overcast
- Foggy
- Showers
- Other
- Rain

If 'Other', please specify:

Breezy. Wind rising. Change coming.

#### Last rainfall:

- Raining now
- Last 24hrs
- Last 3 days
- Last 7 days
- More than a week ago

very light

#### Litter / Pollutants (record no.):

- \_\_\_ Cans
- \_\_\_ Food Packets
- \_\_\_ Waxed Cardboard
- \_\_\_ Paper
- \_\_\_ Plastic
- \_\_\_ Bottles
- \_\_\_ Clothing
- \_\_\_ Polystyrene
- \_\_\_ Petrol/Diesel (m<sup>2</sup>)
- \_\_\_ Oil (m<sup>2</sup>)
- \_\_\_ Car bodies
- \_\_\_ Other (specify)





## Habitat Data Form

### Observation Information

#### Monitoring site details

Site code: 006 Pebblebank

Site description:

#### Name of monitoring group

Persons monitoring: JB, JS, EB, SD, SE, LB, AP

Date and time of monitoring: 5.2.17

### Habitat Assessment

Bank vegetation:	<u>6</u>	(0-10)
Verge vegetation:	<u>8</u>	(0-10)
In-stream cover:	<u>6</u>	(0-10)
Bank erosion and stability:	<u>6</u>	(0-5)
Riffles, pools and bends:	<u>6</u>	(0-5)
<b>Final Habitat Score:</b>	<u>32</u>	(Add your scores)

Score	Definition
Excellent (36-40)	Site in natural or virtually natural condition; excellent habitat condition.
Good (29-35)	Some alteration from natural state; good habitat conditions.
Fair (20-28)	Significant alteration from the natural state but still offering moderate habitat; stable.
Poor (12-19)	Significant alterations from the natural state, with reduced habitat value; may have erosion or sedimentation problems.
Degraded (8-11)	Very degraded, often with severe erosion or sedimentation problems.



## Habitat Data Form

06, Rottlebank 5.2.17

### Bank vegetation

(10) Mainly undisturbed native vegetation. No signs of site alteration.	(8) Mainly native vegetation. Little disturbance or no signs of recent site disturbance. ✓	(6) Medium cover, mixed native / introduced. Or one side cleared, the other undisturbed.	(4) Introduced ground cover, little native under storey or over storey, predominantly introduced vegetation.	(2) Introduced ground cover with lots of bare ground, occasional tree. Also includes sites with concrete lined channels.
--	---	---	---	---

### Verge vegetation

(10) Mainly undisturbed native vegetation on both sides of stream. Verge more than 30m wide.	(8) Well-vegetated wide verge corridor. Mainly undisturbed native vegetation on both sides of stream; some introduced or reduced cover of native vegetation. ✓	(6) Wide corridor of mixed native and exotics, or one side cleared, and other wide corridor of native vegetation.	(4) Very narrow corridor of native or introduced vegetation.	(2) Bare cover or introduced grass cover such as pastureland.
---	---	--	---	--

### In-stream cover

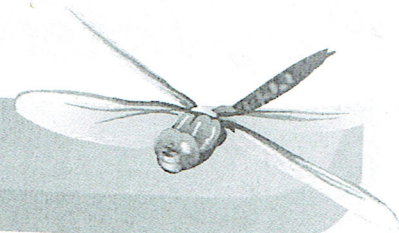
(10) Abundant cover. Frequent snags, logs or boulders with extensive areas of in-stream, aquatic vegetation and overhanging bank.	(8) A good cover of snags, logs or boulders, with considerable areas of in-stream and overhanging vegetation.	(6) Some snags or boulders present and / or occasional areas of in-stream or overhanging vegetation. ✓	(4) Only slight cover. The stream is largely cleared, with occasional snags and very little in-stream vegetation. Generally no overhanging vegetation.	(2) No cover. No snags, boulders submerged or overhanging vegetation. No undercut banks. Site may have rock or concrete lining.
--	--	---	---	--

### Bank erosion and stability

(5) Stable; no erosion / Sedimentation evident. No undercutting of banks, usually gentle bank slopes, lower banks covered with root mat grasses, reeds or shrubs.	(4) Only spot erosion occurring. Little undercutting of bank, good vegetation cover, usually gentle bank slopes, no significant damage to bank structure.	(3) Localised erosion evident. A relatively good vegetation cover. No continuous damage to bank structure or vegetation. ✓	(2) Significant active erosion evident especially during high flows. Unstable, extensive areas of bare banks, little vegetation cover.	(1) Extensive or almost continuous erosion. Over 50% of banks have some form of erosion; very unstable with little vegetation cover.
--	--	---	---	---

### Riffles, pools and bends (flowing water only)

(5) Wide variety of habitats. Riffles and pools present of varying depths. Bends present. Good	(4) Good variety of habitats - e.g., riffles and pools or bends and pools. Variation in depth of riffle and pool.	(3) Some variety of habitats - e.g., occasional riffle or bend. Some variation in depth. ✓	(2) Only slight variety of habitat. All riffle or pool with only slight variation in depth. Very poor	(1) Uniform habitat. Straight stream, all shallow riffle or pool of uniform depth - e.g.; channeled stream or irrigation channel.
---	--	---	--	--



## Macro-invertebrates Data Form

### Monitoring Group Information

#### Monitoring site details

Site code: 006

Site description: Pobblebank

#### Name of monitoring group

Persons monitoring:

Date and time of monitoring: 5.2.17

### Macro-invertebrates

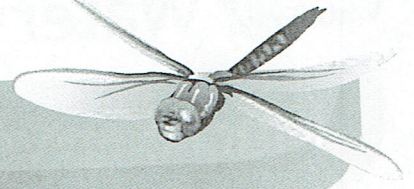
#### Sample Type

Edge  Riffle

Please record your data below:

Common Name	Order	Bug Score	Abundance
<b>Very Sensitive Macro-invertebrates</b>			
Stonefly Nymph	Plecoptera	8	
Mayfly Nymph	Ephemeroptera	7	
Caddisfly Nymph	Trichoptera	7	
<b>Sensitive Macro-invertebrates</b>			
Toebiters/Dobsonflies	Megaloptera	6	
Damselfly Nymph	Odonata	6	
Dragonfly Nymph	Odonata	6	
Freshwater Mussel	Class: Bivalvia	5	
Aquatic Caterpillars	Lepidoptera	5	
Freshwater Shrimp/Prawn	Decapoda	5	
Freshwater Yabby/Crayfish	Decapoda	5	
Water Mite	Acarina	5	
Freshwater Slater	Isopoda	5	

Mosquito fish only



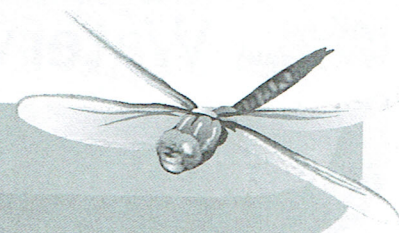
## Macro-invertebrates Data Form

Common Name	Order	Bug Score	Abundance
<b>Tolerant Macro-invertebrates</b>			
Hydra	Hydrozoa	4	
Beetle Larvae	Coleoptera	4	
True Bugs (Backswimmers, Water Boatman, Water Strider)	Hemiptera	4	2
Side Swimmer/Scud	Amphipoda	4	
Aquatic Beetles (Diving Beetles, Whirligig Beetles)	Coleoptera	3	
Round Worms	Nematoda	3	
Leech	Hirudinea	3	
Freshwater Snails	Gastropoda	3	
Flatworm	Turbellaria	3	
<b>Very Tolerant Macro-invertebrates</b>			
Mosquito Larvae	Diptera	2	
Biting Midge Larvae	Diptera	2	
Fly Larvae	Diptera	2	
Segmented Worm	Oligochaeta	1	
Non Biting Midge (Bloodworms)	Diptera	1	
	<b>TOTALS</b>	<b>4</b>	<b>2</b>

### Overall Bug Rating

Total abundance	Total bug score	
	0-35	35+
0-200	2	Good
200+	4	Very good

*Very Poor*

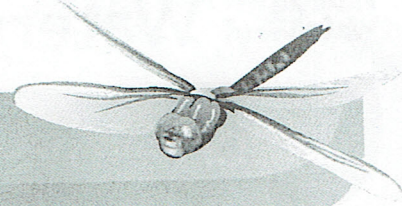


## Macro-invertebrates Data Form

Common Name	Order	Bug Score	Abundance
<b>Tolerant Macro-invertebrates</b>			
Hydra	Hydrozoa	4	
Beetle Larvae	Coleoptera	4	
True Bugs (Backswimmers*, Water Boatman, Water Strider)	Hemiptera	4	100+ boatman microinvertebrates
Side Swimmer/Scud	Amphipoda	4	
Aquatic Beetles (Diving Beetles, Whirligig Beetles)	Coleoptera	3	
Round Worms	Nematoda	3	
Leech	Hirudinea	3	
Freshwater Snails	Gastropoda	3	
Flatworm	Turbellaria	3	
<b>Very Tolerant Macro-invertebrates</b>			
Mosquito Larvae	Diptera	2	
Biting Midge Larvae	Diptera	2	
Fly Larvae	Diptera	2	
Segmented Worm	Oligochaeta	1	
Non Biting Midge (Bloodworms)	Diptera	1	
	<b>TOTALS</b>	<b>21</b>	<b>113+</b>

### Overall Bug Rating

Total abundance	Total bug score	
	0-35	35+
0-200 <b>113</b>	<b>21</b> Poor	<del>35+</del> Good
200+	Fair	Very good



## Macro-invertebrates Data Form

### Monitoring Group Information

#### Monitoring site details

Site code:

Site description: *Heron Point*

#### Name of monitoring group

Persons monitoring:

Date and time of monitoring: *5.2.17*

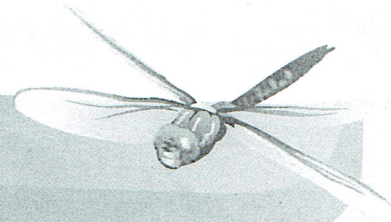
### Macro-invertebrates

#### Sample Type

Edge     Riffle

Please record your data below:

Common Name	Order	Bug Score	Abundance
<b>Very Sensitive Macro-invertebrates</b>			
Stonefly Nymph	Plecoptera	8	
Mayfly Nymph	Ephemeroptera	7	
Caddisfly Nymph	Trichoptera	7	<i>1</i>
<b>Sensitive Macro-invertebrates</b>			
Toebiters/Dobsonflies	Megaloptera	6	
Damselfly Nymph	Odonata	6	
Dragonfly Nymph	Odonata	6	
Freshwater Mussel	Class: Bivalvia	5	
Aquatic Caterpillars	Lepidoptera	5	
Freshwater Shrimp/Prawn	Decapoda	5	<i>//</i>
Freshwater Yabby/Crayfish	Decapoda	5	<i>/</i>
Water Mite	Acarina	5	
Freshwater Slater	Isopoda	5	



# Macro-invertebrates Data Form

## Monitoring Group Information

### Monitoring site details

Site code:

Site description: *Boardwalk - not normally sampled.*

### Name of monitoring group

Persons monitoring:

Date and time of monitoring: *5.2.17*

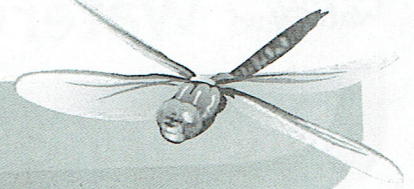
## Macro-invertebrates

### Sample Type

Edge  Riffle

Please record your data below:

Common Name	Order	Bug Score	Abundance
<b>Very Sensitive Macro-invertebrates</b>			
Stonefly Nymph	Plecoptera	8	
Mayfly Nymph	Ephemeroptera	7	
Caddisfly Nymph	Trichoptera	7	<i>1</i>
<b>Sensitive Macro-invertebrates</b>			
Toebiters/Dobsonflies	Megaloptera	6	
Damselfly Nymph	Odonata	6	
Dragonfly Nymph	Odonata	6	
Freshwater Mussel	Class: Bivalvia	5	
Aquatic Caterpillars	Lepidoptera	5	
Freshwater Shrimp/Prawn	Decapoda	5	<i>11</i>
Freshwater Yabby/Crayfish	Decapoda	5	
Water Mite	Acarina	5	
Freshwater Slater	Isopoda	5	



## Macro-invertebrates Data Form

Common Name	Order	Bug Score	Abundance
<b>Tolerant Macro-invertebrates</b>			
Hydra	Hydrozoa	4	
Beetle Larvae	Coleoptera	4	
True Bugs (Backswimmers, Water Boatman, Water Strider)	Hemiptera	4	40+ Backswimmers 1 Water Boatman
Side Swimmer/Scud	Amphipoda	4	
Aquatic Beetles (Diving Beetles, Whirligig Beetles)	Coleoptera	3	
Round Worms	Nematoda	3	
Leech	Hirudinea	3	
Freshwater Snails	Gastropoda	3	
Flatworm	Turbellaria	3	
<b>Very Tolerant Macro-invertebrates</b>			
Mosquito Larvae	Diptera	2	
Biting Midge Larvae	Diptera	2	
Fly Larvae	Diptera	2	
Segmented Worm	Oligochaeta	1	
Non Biting Midge (Bloodworms)	Diptera	1	
	<b>TOTALS</b>	<b>16</b>	<b>52+</b>

Overall Bug Rating *Mosquito fish*

Total abundance	Total bug score	
	0-35	35+
0-200 <b>52</b>	<b>16</b> Poor	<del>52</del> Good
200+	Fair	Very good