



ABP $\phi\phi 1$

Water Chemistry

Site Code R307R Site name Bodallin Evap Basin Date 18/9/06

Personnel BOS + MDS

Max depth of wetland 0.87m

Max depth measured at depth gauge

pH		<u>3.57</u> [H ⁺]	
Temperature		<u>18.8</u> (°C)	
Conductivity		<u>76.2</u> mS(m ⁻¹) (ppm) ^{MDS}	<u>59.7</u> ppm ^{ppm}
DO	(TOP)	<u>104</u> (%)	<u>—</u> ppm
	(BOTTOM)	<u>102</u> (%)	<u>—</u> ppm

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

125 mL water sample, filtered and frozen
 Nutrients

Check (✓)



250 mL water sample, acid-wash bottles, filtered
 Chem centre metals analysis



100 mL water sample, acid-wash bottles, filtered
 DoW trace metals analysis



500 mL water sample, unfiltered
 Ionic composition



CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

Water column sample

Check (✓)



Volume filtered 550 mL
 Default = 500 mL

Benthic sample

Place 2 drops of MgCO₃ with sample



Benthic sample - replicate

No MgCO₃



No benthic mats present

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ABP 001

Habitat

Site Code R30YR Site name Boddallin Evap Basin Date 18/9/06

Personnel BDS MDS

Site details Evaporation pond very atypical site, not a natural wetland, surrounded by pasture

Photo 1 bearing (facing wetland) roughly west Fence dropper placed? YES/NO
 Location _____

Photo 2 bearing (facing away from wetland) roughly east
 Include fence dropper in foreground of each photo

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1	<u>-</u>	Water level 1	<u>-</u>
May need up to 10 quadrats in	<u>2</u>	Water level 2	<u>-</u>
Sparse macrophyte	<u>3</u>	Water level 3	<u>-</u>
	<u>4</u>	Water level 4	<u>-</u>
	<u>5</u>	Water level 5	<u>-</u>

Macrophyte sheet numbers - No macrophyte present

Check (✓)

Macrophyte biomass collected
 5 x 25 cm square quadrats, store in calico bags

Macrophyte species collected and photographed
 Press each specimen
 Preserve sample in 100% ethanol, store in large zip-lock bags

} No macrophyte present

Invertebrate 250 µm sample
 50 m over 200 m, sweep sediments, all habitats
 Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
 50 m over 200 m, DO NOT sweep sediments, all habitats
 Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
 10 m tow, all habitats
 Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
 Scrape spoon across any obvious benthic mats, sticks, rocks,
 substrate and macrophytes
 Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
<u>NONE</u>					
			Total species	<u>0</u>	



Water Chemistry

ABP002

Site Code R25YR Site name Koorda-Bullfinch Rd Date 19-09-06

Personnel BOS & MDS

Max depth of wetland 25 cm

Max depth measured at ~ 30m off shore, uniform depth across entire wetland

pH	<u>3.60</u>	[H ⁺]	
Temperature	<u>13.3</u>	(°C)	
Conductivity	<u>17.99 mScm⁻¹</u> (µS/cm)		<u>11.7</u> ppm ppt
DO (TOP)	<u>81.5</u>	(%)	<u>—</u> ppm
DO (BOTTOM)	<u>74.5</u>	(%)	<u>—</u> ppm

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

Check (✓)

- 5 mL water sample, filtered and frozen
Nutrients
- 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
- 50 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
- 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

Check (✓)

- Water column sample
- Benthic sample
Place 2 drops of MgCO₃ with sample
- Benthic sample - replicate
No MgCO₃

Volume filtered 550 mL
 Default = 500 mL

} No benthic mats present

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ABP #2

Habitat

Site Code R25YR Site name Koorda - Bullfinch Rd Date 19-09-06

Personnel BDS + MOS

Site details Large, flat wetland, substrate uniform sand over clay throughout, no habitat other than bare substrate

Photo 1 bearing (facing wetland) -

Fence dropper placed? YES/NO
 Location @ GPS reading, next to shrub

Photo 2 bearing (facing away from wetland) -
 Include fence dropper in foreground of each photo

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1 -
 May need up to 10 quadrats in 2 -
 Sparse macrophyte 3 -
 4 -
 5 -

Water level 1 -
 Water level 2 -
 Water level 3 -
 Water level 4 -
 Water level 5 -

Macrophyte sheet numbers NO MACROPHYTE

Check (✓)

Macrophyte biomass collected
 5 x 25 cm square quadrats, store in calico bags

Macrophyte species collected and photographed
 Press each specimen
 Preserve sample in 100% ethanol, store in large zip-lock bags

} NO MACROPHYTE

Invertebrate 250 µm sample
 50 m over 200 m, sweep sediments, all habitats
 Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
 50 m over 200 m, DO NOT sweep sediments, all habitats
 Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
 10 m tow, all habitats
 Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
 Scrape spoon across any obvious benthic mats, sticks, rocks, substrate and macrophytes
 Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
NONE					
			Total species		



ABP 003

Water Chemistry

Site Code R22YR Site name Cundain Rd d/s Elmhurst Dam Date 19-09-06

Personnel BDS + MOS

Max depth of wetland 30cm

Max depth measured at ~50m from water's edge (~100m from fence/dropper)
towards centre of wetland; depth uniform throughout

pH	<u>3.11</u> [H ⁺]	
Temperature	<u>20.9</u> (°C)	
Conductivity	<u>9.61 mS/cm</u> (ppm)	<u>6.1</u> ppm
DO (TOP)	<u>97.6</u> (%)	<u>-</u> ppm
DO (BOTTOM)	<u>95.2</u> (%)	<u>-</u> ppm

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- 125 mL water sample, filtered and frozen
Nutrients Check (✓)
- 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
- 10 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
- 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Water column sample Check (✓) Volume filtered 600 mL
Default = 500 mL
- Benthic sample } No benthic mats
Place 2 drops of MgCO₃ with sample
- Benthic sample - replicate }
No MgCO₃



Habitat

Site Code R22YR Site name ABP003 Cudem Rd d/s Elmhilling Drain Date 19-09-06

Personnel BOS + MOS

Site details Shallow, flat lake, numerous dead trees in wetland, steep artificial bank and deep drain surrounding wetland

Photo 1 bearing (facing wetland) - Fence dropper placed? YES/NO
Location 44m from road, next to tree stump

Photo 2 bearing (facing away from wetland) -
(include fence dropper in foreground of each photo)

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1	<u>-</u>	Water level 1	<u>-</u>
May need up to 10 quadrats in	2 <u>-</u>	Water level 2	<u>-</u>
Sparse macrophyte	3 <u>-</u>	Water level 3	<u>-</u>
	4 <u>-</u>	Water level 4	<u>-</u>
	5 <u>-</u>	Water level 5	<u>-</u>

Macrophyte sheet numbers NO MACROPHYTES

- Check (✓)
- } NO MACROPHYTE
 - } NO MACROPHYTE
 -
 -
 -
 -
- Macrophyte biomass collected**
5 x 25 cm square quadrats, store in calico bags
- Macrophyte species collected and photographed**
Press each specimen
Preserve sample in 100% ethanol, store in large zip-lock bags
- Invertebrate 250 μm sample**
50 m over 200 m, sweep sediments, all habitats
Preserve in 100% ethanol, store in 2 L pot
- Zooplankton 50 μm sample**
50 m over 200 m, DO NOT sweep sediments, all habitats
Preserve in 4% formalin, store in 120 mL polycarb vials
- Phytoplankton 35 μm sample**
10 m tow, all habitats
Preserve in 1.5 mL Lugols (weak tea), store in square vials
- Diatoms collected**
Scrape spoon across any obvious benthic mats, sticks, rocks, substrate and macrophytes
Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
<u>NONE</u>					
			Total species		

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Water Chemistry

ABP004

Site Code R19YR Site name CORNISH ROAD Date 19-09-06

Personnel BDS & MDS

Max depth of wetland 30 cm

Max depth measured at ~ 100m TOWARDS CENTRE OF LAKE FROM 'DROPPER'.

pH	<u>3.78</u>	[H ⁺]	
Temperature	<u>23.9</u>	(°C)	
Conductivity	<u>5410</u>	(µS cm ⁻¹)	<u>3.3</u> ppM ^T
DO	(TOP) <u>105</u>	(%)	ppM
	(BOTTOM) <u>103.8</u>	(%)	ppM

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 5 mL water sample, filtered and frozen
Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 10 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample
 - Benthic sample
Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate
No MgCO₃
- Volume filtered 550 mL
 Default = 500 mL
- NO BENTHIC MAT.

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ABP 004

Habitat

Site Code RIAYR Site name Cornish Rd d/s playa d/s Lake Bann Date 19/9/06

Personnel BOS + MOS

Site details Shallow flat bottom, no fringing veg + scrub + dead trees surround wetland, uniform sand over clay substrate throughout, occasional dead log in wetland

Photo 1 bearing (facing wetland)

Fence dropper placed? YES/NO
Location 100m @ 25° from car

Photo 2 bearing (facing away from wetland)

Include fence dropper in foreground of each photo

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1
May need up to 10 quadrats in 2
Sparse macrophyte 3
4
5

Water level 1
Water level 2
Water level 3
Water level 4
Water level 5

Macrophyte sheet numbers NO MACROPHYTE

Check (✓)

Macrophyte biomass collected
5 x 25 cm square quadrats, store in calico bags

} NO MACROPHYTE
 }

Macrophyte species collected and photographed
Press each specimen
Preserve sample in 100% ethanol, store in large zip-lock bags

Invertebrate 250 µm sample
50 m over 200 m, sweep sediments, all habitats
Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
50 m over 200 m, DO NOT sweep sediments, all habitats
Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
10 m tow, all habitats
Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
Scrape spoon across any obvious benthic mats, sticks, rocks,
substrate and macrophytes
Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
NONE					
			Total species		



ABP 005

Water Chemistry

Site Code R18YR Site name Purdy Rd Playa Date 19-09-06

Personnel BDS & MOS

Max depth of wetland 12cm

Max depth measured at ~ 100m from fence dropper, towards centre of lake

pH		<u>3.36</u>	[H ⁺]	
Temperature		<u>13.9</u>	(°C)	
Conductivity		<u>209</u>	mScm⁻¹	<u>OUT OF RANGE</u> ppm
DO	(TOP)	<u>23.1</u>	(%)	<u>2.1</u> mgL⁻¹ ppm
	(BOTTOM)	<u>23.1</u>	(%)	<u>2.1</u> mgL⁻¹ ppm

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
Nutrients
 - 100 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 100 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample Volume filtered 550 mL
Default = 500 mL
 - Benthic sample } NO BENTHIC MATS
Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate }
No MgCO₃

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Habitat

ABPOOS

Site Code R18YR Site name PURDY RD PLAYA Date 20-09-06

Personnel MDS & BDS

Site details SMALL SALINE WETLAND c NARROW RIPARIAN VEG SURROUNDED BY CROP ON 80% OF SIDES, REMNANT VEG OTHER 20%. SHALLOW; NO HABITAT DIVERSITY; SAND OVER ORGANICS AND CLAY.

Photo 1 bearing (facing wetland) -

Fence dropper placed? YES
Location ADJ TO FENCE LINE IN RIPARIAN VEG (ODEN) ~ 15 FROM TRACK.

Photo 2 bearing (facing away from wetland) -

Include fence dropper in foreground of each photo

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1 -
May need up to 10 quadrats in 2
Sparse macrophyte 3
4
5

Water level 1 _____
Water level 2 _____
Water level 3 _____
Water level 4 _____
Water level 5 _____

12m @ 10° from dr to dropper.

Macrophyte sheet numbers NO MACROPHYTE

Check (✓)

Macrophyte biomass collected
5 x 25 cm square quadrats, store in calico bags

} NO MACROPHYTE

Macrophyte species collected and photographed
Press each specimen
Preserve sample in 100% ethanol, store in large zip-lock bags

Invertebrate 250 µm sample
() m over 200 m, sweep sediments, all habitats
Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
50 m over 200 m, DO NOT sweep sediments, all habitats
Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
10 m tow, all habitats
Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
Scrape spoon across any obvious benthic mats, sticks, rocks, substrate and macrophytes
Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
NONE					
			Total species		

ABP006

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
ND001: Baseline Wetland Diversity in the Avon



Water Chemistry

Site Code R17YR Site name Doodlakaine-Kununogup Rd Date 20-9-06
Personnel BDS + MDS
Max depth of wetland 20cm
Max depth measured at 200m from fence dropper towards centre of wetland

pH		<u>3.62</u>	[H ⁺]	
Temperature		<u>15.8</u>	(°C)	
Conductivity		<u>66.7 mScm⁻¹</u>	(µS cm⁻¹)	<u>50.9 µS⁺</u> ppm
DO	(TOP)	<u>59.0</u>	(%)	<u>-</u> ppm
	(BOTTOM)	<u>54.8</u>	(%)	<u>-</u> ppm

*TOP measurements 15 cm below water surface
*BOTTOM measurements ~ 8 cm above sediment

- 125 mL water sample, filtered and frozen
Nutrients
- 100 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
- 250 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
- 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Water column sample Volume filtered 600 mL
Default = 500 mL
 - Benthic sample Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate No MgCO₃
- } NO BENTHIC MATS



ABP007

Water Chemistry

Site Code R31YR Site name Bondee Ski Lake Date 20-09-06

Personnel MDS + BDS

Max depth of wetland 18cm

Max depth measured at ~100m water's edge, towards lake centre (~200m from public toilet)

pH	<u>3.15</u>	[H ⁺]	
Temperature	<u>23.6</u>	(°C)	
Conductivity	<u>198,000</u>	(µS cm ⁻¹)	<u>ABOVE UPPER LIMIT</u> ppM
DO	(TOP) <u>17.4</u>	(%)	<u>1.28</u> (mgL ⁻¹) ppM
	(BOTTOM) <u>17.4</u>	(%)	<u>1.28</u> " ppM

*TOP measurements 15 cm below water surface

*BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 250 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample Volume filtered 800 mL
Default = 500 mL
 - Benthic sample } NO BENTHIC MATS
Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate }
No MgCO₃



ABP 008

Water Chemistry

Site Code 2201 Site name Lockhart River Kwolyn Hill Date 20-9-06

Personnel BDS + MDS

Max depth of wetland 0.7m

Max depth measured at upstream of bridge ; depth @ gauge
0.04m

pH	<u>5.64</u>	[H ⁺]	
Temperature	<u>20.2</u>	(°C)	
Conductivity	<u>6.95 mScm⁻¹</u>	(µS cm⁻¹)	<u>4.3</u> ppm
DO (TOP)	<u>E3 error</u>	(%)	<u>—</u> ppm
DO (BOTTOM)	<u>11</u>	(%)	<u>—</u> ppm

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
 Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
 Chem centre metals analysis
 - 10 mL water sample, acid-wash bottles, filtered
 DoW trace metals analysis
 - 500 mL water sample, unfiltered
 Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample Volume filtered 575 mL
 Default = 500 mL
 - Benthic sample } NO BENTHIC MATS
 - Benthic sample - replicate }
 No MgCO₃

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Habitat ABPO08

Site Code LLØ1 Site name KWOLYIN HILL (LOCKHART R) Date 20-09-06

Personnel MDS + BDS . NOT A WETLAND BUT RIVERINE ADJ TO A BRIDGE, NEAR

Site details AND GAUGING STATION SAMPLED UPSTREAM. CONSTRUCTION RUBBLE (BOULDER) DUMPED
UPSTREAM. SAND SILT OVER CLAY & BLACK ORGANICS OCCASIONAL DEAD ARKIA STUMP; MINIM

Photo 1 bearing (facing wetland) 23 # HABITAT Fence dropper placed? YES (NO)
Location FROM BRIDGE

Photo 2 bearing (facing away from wetland) 24 & 25 MARKER 4060

Macrophyte cover across wetland _____ %

- Macrophyte height at quadrat 1 _____
- May need up to 10 quadrats in _____
- Sparse macrophyte _____
- _____
- _____
- _____
- _____
- Water level 1 _____
- Water level 2 _____
- Water level 3 _____
- Water level 4 _____
- Water level 5 _____

Macrophyte sheet numbers _____

- Macrophyte biomass collected**
5 x 25 cm square quadrats, store in calico bags

} NO MACROPHYTE
- Macrophyte species collected and photographed**
Press each specimen
Preserve sample in 100% ethanol, store in large zip-lock bags
- Invertebrate 250 µm sample**
50 m over 200 m, sweep sediments, all habitats
Preserve in 100% ethanol, store in 2 L pot
- Zooplankton 50 µm sample**
50 m over 200 m, DO NOT sweep sediments, all habitats
Preserve in 4% formalin, store in 120 mL polycarb vials
- Phytoplankton 35 µm sample**
10 m tow, all habitats
Preserve in 1.5 mL Lugols (weak tea), store in square vials
- Diatoms collected**
Scrape spoon across any obvious benthic mats, sticks, rocks,
substrate and macrophytes
Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
<u>NONE</u>					
			Total species		



ABP 009

Water Chemistry

Site Code R12EM Site name TRAYNING RD Date 21-09-06

Personnel MDS & BDS (ACTUALLY FLEMING RD)

Max depth of wetland 9cm

Max depth measured at CENTRE OF WETLAND

NOTE: WETLAND ONLY 100m X 130m MAX

pH	<u>3.47</u> [H ⁺]	
Temperature	<u>17.7</u> (°C)	
Conductivity	<u>117800</u> (µS cm ⁻¹)	<u>ABOVE UPPER LIMITS</u> ppm
DO (TOP)	<u>102.5</u> (%)	<u>ppm</u>
DO (BOTTOM)	<u>102.5</u> (%)	<u>ppm</u> <u>Mg/l</u>

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 100 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample Volume filtered 800 mL
Default = 500 mL
 - Benthic sample] NO BENTHIC MAT
 - Benthic sample - replicate No MgCO₃

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ABP009

Habitat

Site Code R12EM Site name Trayning Rd Date 21-09-06

Personnel BPS + MDS

Site details Very shallow ~ 10cm & ~ 100m x 130m wide. - 5m wide buffer meclekers

& Salmon gum(?) & few dead trees. Minimal habitat diversity Sand/silt over clay. Yellow biofilm on margin

Photo 1 bearing (facing wetland) 26 Fence dropper placed? YES/NO
Location 7m @ 270° from car

Photo 2 bearing (facing away from wetland) 27
(include fence dropper in foreground of each photo)

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1	<u>-</u>	Water level 1	<u>-</u>
May need up to 10 quadrats in	<u>2</u>	Water level 2	<u>-</u>
Sparse macrophyte	<u>3</u>	Water level 3	<u>-</u>
	<u>4</u>	Water level 4	<u>-</u>
	<u>5</u>	Water level 5	<u>-</u>

Macrophyte sheet numbers NO MACROPHYTE

Check (✓)

Macrophyte biomass collected

5 x 25 cm square quadrats, store in calico bags



Macrophyte species collected and photographed

Press each specimen
Preserve sample in 100% ethanol, store in large zip-lock bags



NO MACROPHYTE

vertebrate 250 µm sample

50 m over 200 m, sweep sediments, all habitats
Preserve in 100% ethanol, store in 2 L pot



Zooplankton 50 µm sample

50 m over 200 m, DO NOT sweep sediments, all habitats
Preserve in 4% formalin, store in 120 mL polycarb vials



Phytoplankton 35 µm sample

10 m tow, all habitats
Preserve in 1.5 mL Lugols (weak tea), store in square vials



Diatoms collected

Scrape spoon across any obvious benthic mats, sticks, rocks,
substrate and macrophytes
Preserve in 4% formalin, store in McCartney vial



Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
<u>NONE</u>					
			Total species		



ABP 010

Water Chemistry

Site Code R13EM Site name Lackman Rd Date 21-09-06

Personnel BDS + MOS

Max depth of wetland 6cm

Max depth measured at ~50m towards centre of wetland from fence
dropper

pH	<u>3.55</u> [H ⁺]	
Temperature	<u>23.4</u> (°C)	
Conductivity	<u>207µS/cm</u> (µS/cm)	<u>ABOVE LIMIT</u> ppm
DO	(TOP) <u>23.1% (E)</u> (%)	<u>179</u> mgL ⁻¹ (E) ppm
	(BOTTOM) <u>"</u> (%)	<u>"</u> ppm

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 500 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample
 - Benthic sample
Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate
No MgCO₃

Volume filtered 550 mL
 Default = 500 mL

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ABP010

Habitat

Site Code RIBEM Site name LACKMAN RD Date 21-09-06

Personnel MDS & BDS

Site details SHALLOW SALINE WETLAND; SALT CRUST OVER SAND OVER CLAY & BLACK

ORGANICS; WATER RECEDED FROM SHORELINE, MINIMUM RIPARIAN; MINIMUM HABITAT DIVERSITY

Photo 1 bearing (facing wetland) 28 #30,31,32 Fence dropper placed? YES/NO

Photo 2 bearing (facing away from wetland) 29 BENTHIC CHLOROPHYLL SAMPLE Location 65m @ 070° FROM CAR TO STAKE

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1 _____
 May need up to 10 quadrats in 2 _____
 Sparse macrophyte 3 _____
4 _____
5 _____

Water level 1 _____
 Water level 2 _____
 Water level 3 _____
 Water level 4 _____
 Water level 5 _____

Macrophyte sheet numbers _____

Macrophyte biomass collected
 5 x 25 cm square quadrats, store in calico bags

Macrophyte species collected and photographed
 Press each specimen
 Preserve sample in 100% ethanol, store in large zip-lock bags

Check (✓)
 } NO MACROPHYTE

Invertebrate 250 µm sample
 50 m over 200 m, sweep sediments, all habitats
 Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
 50 m over 200 m, DO NOT sweep sediments, all habitats
 Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
 10 m tow, all habitats
 Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
 Scrape spoon across any obvious benthic mats, sticks, rocks,
 substrate and macrophytes
 Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
NONE					
			Total species		

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



Habitat

ABPO20 smj 19/7/07

Site Code R6NM Site name _____ Date 22-6-09

Personnel J. COCKING + H. BARRON

Site details _____

Photo 1 bearing (facing wetland) 14

Fence dropper placed? YES/NO NO

Location used existing post

Photo 2 bearing (facing away from wetland) 15

Include fence dropper in foreground of each photo

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1 _____
 2 _____
 3 _____
 4 _____
 5 _____

Water level 1 _____
 Water level 2 _____
 Water level 3 _____
 Water level 4 _____
 Water level 5 _____

Macrophyte sheet numbers _____

Check (✓)

Macrophyte biomass collected N/A
 5 x 25 cm square quadrats, store in calico bags

Macrophyte species collected and photographed
 Press each specimen
 Preserve sample in 100% ethanol, store in large zip-lock bags

Invertebrate 250 µm sample
 50 m over 200 m, sweep sediments, all habitats
 Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
 50 m over 200 m, DO NOT sweep sediments, all habitats
 Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
 10 m tow, all habitats
 Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
 Scrape spoon across any obvious benthic mats, sticks, rocks,
 substrate and macrophytes
 Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
NONE OBSERVED.					
			Total species		



ABP020 SMT 19/7/07

Water Chemistry

Site Code R6NM Site name _____ Date 22-6-09

Personnel J. COCKING + H. BARRON

Max depth of wetland 40 cm

Max depth measured at MIDDLE (see diagram)

pH	<u>4.28</u>	[H ⁺]	
Temperature	<u>18.4</u>	(°C)	
Conductivity	<u>61.2</u>	(µS cm ⁻¹)	<u>30.7</u> ppM T
DO	<u>93.1</u>	(%)	<u>8.49</u> ppM
	(TOP)		
	(BOTTOM)	(%)	ppM

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 250 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample Volume filtered 500 mL
Default = 500 mL
 - Benthic sample
Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate
No MgCO₃

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



ABP019 SMS 19/7/07

Habitat

Site Code R5NM Site name _____ Date 22-9-06

Personnel HSB JSC

Site details Site is very shallow, no macrophytes. Will be dry in several days.

Photo 1 bearing (facing wetland) 7 NIKON

Fence dropper placed? YES NO
 Location South of lat-long by 20m. (lat long taken on road, dropper close to trees).

Photo 2 bearing (facing away from wetland) 8 NIKON
 Include fence dropper in foreground of each photo

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1	_____
May need up to 10 quadrats in	2 _____
Parse macrophyte	3 _____
	4 _____
	5 _____

Water level 1	_____
Water level 2	_____
Water level 3	_____
Water level 4	_____
Water level 5	_____

Macrophyte sheet numbers _____

Check (✓)

Macrophyte biomass collected
 5 x 25 cm square quadrats, store in calico bags

Macrophyte species collected and photographed
 Press each specimen
 Preserve sample in 100% ethanol, store in large zip-lock bags

Invertebrate 250 µm sample
 50 m over 200 m, sweep sediments, all habitats
 Preserve in 100% ethanol, store in 2 L pot

Plankton 50 µm sample
 50 m over 200 m, DO NOT sweep sediments, all habitats
 Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
 10 m tow, all habitats
 Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
 Scrape spoon across any obvious benthic mats, sticks, rocks, substrate and macrophytes
 Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
<u>NONE</u>					
			Total species		

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



ABP019 smj 19/7/07

Water Chemistry

Site Code RSNM Site name _____ Date 22-9-06

Personnel HJB JSC

Max depth of wetland 10cm

Max depth measured at NE of middle see map.

pH	<u>7.28</u>	[H ⁺]	
Temperature	<u>19.1</u>	(°C)	
Conductivity	<u>156.9</u>	^{mS} (µS cm ⁻¹)	<u>74.4</u> ppM
DO	(TOP) <u>81.9</u>	(%)	<u>7.40</u> ppM
	(BOTTOM) _____	(%)	_____ ppM

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
 Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
 Chem centre metals analysis
 - 250 mL water sample, acid-wash bottles, filtered
 DoW trace metals analysis
 - 250 mL water sample, unfiltered
 Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample
 - Benthic sample
 Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate
 No MgCO₃

Volume filtered 500 mL
 Default = 500 mL

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



Habitat

ABP018 SMS 19/7/07

Site Code R4NM Site name _____ Date 21-9-06

Personnel HSB, JSC + GGD

Site details _____

Photo 1 bearing (facing wetland) NIKON 001

Fence dropper placed? YES/NO
 Location _____

Photo 2 bearing (facing away from wetland) NIKON 002

Include fence dropper in foreground of each photo

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1 0
 Lay need up to 10 quadrats in _____
 Sparse macrophyte _____

Water level 1 0
 Water level 2 _____
 Water level 3 _____
 Water level 4 _____
 Water level 5 _____

Macrophyte sheet numbers _____

Check (✓)

Macrophyte biomass collected

5 x 25 cm square quadrats, store in calico bags



Macrophyte species collected and photographed

Press each specimen
 Preserve sample in 100% ethanol, store in large zip-lock bags



Invertebrate 250 µm sample

50 m over 200 m, sweep sediments, all habitats
 Preserve in 100% ethanol, store in 2 L pot



Plankton 50 µm sample

50 m over 200 m, DO NOT sweep sediments, all habitats
 Preserve in 4% formalin, store in 120 mL polycarb vials



Phytoplankton 35 µm sample

10 m tow, all habitats
 Preserve in 1.5 mL Lugols (weak tea), store in square vials



Diatoms collected

Scrape spoon across any obvious benthic mats, sticks, rocks,
 substrate and macrophytes
 Preserve in 4% formalin, store in McCartney vial



Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
NONE					
			Total species		

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



ABP 018 SMS 19/7/07

Water Chemistry

Site Code R4NM Site name _____ Date 21-9-06

Personnel HSB JSL

Max depth of wetland 20cm

Max depth measured at Middle

pH	<u>7.53</u>	[H ⁺]	
Temperature	<u>23.1</u>	(°C)	
Conductivity	<u>103.4 µS</u>	(µS cm ⁻¹)	<u>51.9 ppt</u> ppm
DO (TOP)	7.5 <u>94.0</u>	(%)	<u>7.75</u> ppm
DO (BOTTOM)	_____	(%)	_____ ppm

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

Check (✓)

- 125 mL water sample, filtered and frozen
Nutrients
- 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
- 250 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
- 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

Check (✓)

- Water column sample Volume filtered 625 mL
Default = 500 mL
- Benthic sample
Place 2 drops of MgCO₃ with sample
- Benthic sample - replicate Unable to do due to filter paper.
No MgCO₃

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
ND001: Baseline Wetland Diversity in the Avon



Habitat

Site Code YY6 Site name ABPOTT Beverly Ski Lake Date 26-09-06

Personnel BDS + MDS

Site details Active ski lake, super-abundance of ostracoda washed up on shore, few dead trees on margin

Photo 1 ~~bearing~~ (facing wetland) 50 Fence dropper placed? YES/NO

Photo 2 ~~bearing~~ (facing away from wetland) 51 Location Photo taken @ sign

Macrophyte cover across wetland 90 %

Macrophyte height at quadrat 1	<u>25cm</u>	Water level 1	<u>30cm</u>
lay need up to 10 quadrats in	2 <u>15cm</u>	Water level 2	<u>20cm</u>
Sparse macrophyte	3 <u>7cm</u>	Water level 3	<u>50cm</u>
	4 <u>8cm</u>	Water level 4	<u>50cm</u>
	5 <u>7cm</u>	Water level 5	<u>50cm</u>

Macrophyte sheet numbers YY6 (2 sheets)

Check (✓)

Macrophyte biomass collected
 5 x 25 cm square quadrats, store in calico bags

Macrophyte species collected and photographed
 Press each specimen
 Preserve sample in 100% ethanol, store in large zip-lock bags

Invertebrate 250 µm sample
 50 m over 200 m, sweep sediments, all habitats
 Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
 10 m over 200 m, DO NOT sweep sediments, all habitats
 Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
 10 m tow, all habitats
 Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
 Scrape spoon across any obvious benthic mats, sticks, rocks,
 substrate and macrophytes
 Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
Grey Teal	50				
Silver Gull	5				
Shelduck	12				
Wood duck	1				
Black-Pond natterel	1				
			Total species	<u>5</u>	

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
ND001: Baseline Wetland Diversity in the Avon



Water Chemistry

ABPRO17

Site Code YY6 Site name SKI LAKE Date 26.09.06

Personnel MDS BDS

Max depth of wetland 1.35

Max depth measured at DEPTH GAUGE

pH	<u>9.32</u>	[H ⁺]	
Temperature	<u>19.5</u>	(°C)	
Conductivity	<u>46400</u>	(µS cm ⁻¹)	<u>33.7</u> ppmT
DO (TOP)	<u>137.6</u>	(%)	<u> </u> ppm
DO (BOTTOM)	<u>166.3</u>	(%)	<u>14.71</u> ppm mg/l et

*TOP measurements 15 cm below water surface
*BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 250 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample
 - Benthic sample
Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate
No MgCO₃

Volume filtered 300 mL
Default = 500 mL

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



Habitat

ABP016

Site Code YY1 Site name Western Shore Channel Lakes Date 26/09/06

Personnel BDS + MOS

Site details Large, "deep" lake; sandbar breaking off a couple of smaller lakes; very low-lying scrub fringing lake; ~50m wide riparian strip on western border of lake

Photo 1 ~~bearing~~ (facing wetland) 47

Fence dropper placed? YES
 Location 120m @ bearing 120° from car

Photo 2 ~~bearing~~ (facing away from wetland) 48

Include fence dropper in foreground of each photo

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1 -

Water level 1 -

May need up to 10 quadrats in 2

Water level 2 -

Sparse macrophyte 3

Water level 3 -

4

Water level 4 -

5

Water level 5 -

Macrophyte sheet numbers NO MACROPHYTE

Check (✓)

Macrophyte biomass collected

5 x 25 cm square quadrats, store in calico bags

} NO MACROPHYTE

Macrophyte species collected and photographed

Press each specimen
 Preserve sample in 100% ethanol, store in large zip-lock bags

}

Invertebrate 250 µm sample

10 m over 200 m, sweep sediments, all habitats
 Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample

10 m over 200 m, DO NOT sweep sediments, all habitats
 Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample

10 m tow, all habitats
 Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected

Scrape spoon across any obvious benthic mats, sticks, rocks, substrate and macrophytes
 Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
PBD	1	0			
			Total species		



ABP016

Water Chemistry

Site Code YY1 Site name Western Shore Channel Lakes Date 26/09/06

Personnel BDS + MDS

Max depth of wetland 80 cm

Max depth measured at ~50-100m off "shore" of large lake

pH	<u>7.75</u> [H ⁺]	
Temperature	<u>20.2</u> (°C)	
Conductivity	<u>160,400</u> (µS cm ⁻¹)	<u>7.76 ppt</u> ppm
DO (TOP)	<u>300 (E7 error)</u> (%)	<u>28.1 mgL⁻¹ (E7 error)</u> ppm
DO (BOTTOM)	<u>258 (")</u> (%)	<u>23.3 mgL⁻¹ (")</u> ppm

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

Check (✓)

- 125 mL water sample, filtered and frozen
Nutrients
- 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
- 250 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
- 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

Check (✓)

- Water column sample
- Benthic sample
Place 2 drops of MgCO₃ with sample
- Benthic sample - replicate
No MgCO₃

Volume filtered 675 mL
 Default = 500 mL

} NO BENTHIC MATS

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
ND001: Baseline Wetland Diversity in the Avon



Habitat

ABROIS

Site Code YY8 Site name _____ Date 26-09-06

Personnel MDS BDS

Site details SMALL WETLAND IN SYSTEM ; PASTURE ON ONE SIDE ; OTHER WETLANDS ON OTHER ; EVIDENCE OF ALGAL BLOOM ON MARGIN ; EXTENSIVE BED OF SUBMERGED MACROPHYTE . SILT, SOIL OVER ORGANICS

Photo 1 ~~bearing~~ (facing wetland) 44

Fence dropper placed? YES NO
Location EXISTING FENCE POST

Photo 2 ~~bearing~~ (facing away from wetland) 45

46 QUADRAT & MACROPHYTE

Macrophyte cover across wetland _____ %

Macrophyte height at quadrat 1 4 CM
2 4 CM
3 4 CM
4 4 CM
5 4 CM

Water level 1 9 CM
Water level 2 9 9cm
Water level 3 9 CM
Water level 4 9 CM
Water level 5 9 CM

Macrophyte sheet numbers YY8

- Macrophyte biomass collected**
5 x 25 cm square quadrats, store in calico bags
- Macrophyte species collected and photographed**
Press each specimen
Preserve sample in 100% ethanol, store in large zip-lock bags
- Invertebrate 250 µm sample**
50 m over 200 m, sweep sediments, all habitats
Preserve in 100% ethanol, store in 2 L pot
- Zooplankton 50 µm sample**
50 m over 200 m, DO NOT sweep sediments, all habitats
Preserve in 4% formalin, store in 120 mL polycarb vials
- Phytoplankton 35 µm sample**
10 m tow, all habitats
Preserve in 1.5 mL Lugols (weak tea), store in square vials
- Diatoms collected**
Scrape spoon across any obvious benthic mats, sticks, rocks, substrate and macrophytes
Preserve in 4% formalin, store in McCartney vial

BUT LAKE BED MUCH FIRMER THAN OTHER ORGANIC LAKES SAMPLED PREVIOUS. 5-10m BUFFER OF RIPARIAN ON PASTURE EDGE

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
GREY TEAL	13				
SHELL DUCK	1				
SILVER GULL	1				
			Total species		

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



Water Chemistry ABPOIS

Site Code Y48 Site name _____ Date 26-09-06

Personnel BOS & MDS

Max depth of wetland 14cm

Max depth measured at in centre of lake

pH	<u>7.92</u> [H ⁺]	
Temperature	<u>13.1</u> (°C)	
Conductivity	<u>26,900</u> (µS cm ⁻¹)	<u>18.2 ppT</u> ppm
DO (TOP)	<u>67.5</u> (%)	<u>6.7 mgL⁻¹</u> ppm
DO (BOTTOM)	<u>''</u> (%)	<u>''</u> ppm

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 250 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

Water column sample Volume filtered 800 mL
 Default = 500 mL

Benthic sample
 Place 2 drops of MgCO₃ with sample

Benthic sample - replicate
 No MgCO₃

} NO BENTHIC MATS

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
ND001: Baseline Wetland Diversity in the Avon



Habitat

ARPA4

Site Code YY10 Site name _____ Date 25-09-06

Personnel BOS - MOS

Site details Surrounded by clear paddocks, small amount of riparian veg fringing, numerous dead trees in water

Photo 1 ~~bearing~~ # 42 (facing wetland)

Fence dropper placed? YES/NO
Location aps & photos taken from small "stepping-stone" jetty

Photo 2 ~~bearing~~ # 43 (facing away from wetland)

Include fence dropper in foreground of each photo

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1	<u>—</u>	Water level 1	<u>—</u>
Macrophyte height at quadrat 2	<u>—</u>	Water level 2	<u>—</u>
Macrophyte height at quadrat 3	<u>—</u>	Water level 3	<u>—</u>
Macrophyte height at quadrat 4	<u>—</u>	Water level 4	<u>—</u>
Macrophyte height at quadrat 5	<u>—</u>	Water level 5	<u>—</u>

Macrophyte sheet numbers NO MACROPHYTE

Check (✓)

Macrophyte biomass collected
5 x 25 cm square quadrats, store in calico bags

Macrophyte species collected and photographed
Press each specimen
Preserve sample in 100% ethanol, store in large zip-lock bags

} NO MACROPHYTE
 }

Invertebrate 250 µm sample
50 m over 200 m, sweep sediments, all habitats
Preserve in 100% ethanol, store in 2 L pot

Plankton 50 µm sample
50 m over 200 m, DO NOT sweep sediments, all habitats
Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
10 m tow, all habitats
Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
Scrape spoon across any obvious benthic mats, sticks, rocks, substrate and macrophytes
Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
<u>GREY TEAL</u>	<u>90</u>	<u>0</u>			
<u>Shelduck</u>	<u>4</u>	<u>0</u>			
			Total species		



Water Chemistry

ABD014

Site Code YY10 Site name _____ Date 25-09-06

Personnel MDS & BDS

Max depth of wetland 70

Max depth measured at ~ 50 FROM BEACH

pH	<u>8.75</u>	[H ⁺]	
Temperature	<u>20.5</u>	(°C)	
Conductivity	<u>28500</u>	(µS cm ⁻¹)	<u>Sal 19.7</u> ppm ^t
DO (TOP)	<u>116.8</u>	(%)	_____ ppm
DO (BOTTOM)	<u>120.5</u>	(%)	_____ ppm

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 250 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample Volume filtered 600 mL
Default = 500 mL
 - Benthic sample Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate No MgCO₃] NO MATS

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
ND001: Baseline Wetland Diversity in the Avon



Habitat

ABP013

Site Code YL1 Site name Lake Yemyenny Date 25/9/06

Personnel BDS + MOS

Site details Surrounded by pasture. Rimmed by vegetated sand dune & within defined basin. Few dead trees in water. Riparian in good condition

Photo 1 ~~location~~ (facing wetland) 40

Fence dropper placed? YES NO
Location 180m @ 0°N to dropper from car

Photo 2 ~~location~~ (facing away from wetland) 41

Include fence dropper in foreground of each photo

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1	<u>-</u>	Water level 1	<u>-</u>
May need up to 10 quadrats in	<u>2</u>	Water level 2	<u>-</u>
Sparse macrophyte	<u>3</u>	Water level 3	<u>-</u>
	<u>4</u>	Water level 4	<u>-</u>
	<u>5</u>	Water level 5	<u>-</u>

Macrophyte sheet numbers NO MACROPHYTE

Macrophyte biomass collected
5 x 25 cm square quadrats, store in calico bags

Check (✓)
 } NO MACROPHYTE
 }

Macrophyte species collected and photographed
Press each specimen
Preserve sample in 100% ethanol, store in large zip-lock bags

Invertebrate 250 µm sample
50 m over 200 m, sweep sediments, all habitats
Preserve in 100% ethanol, store in 2 L pot

Plankton 50 µm sample
50 m over 200 m, DO NOT sweep sediments, all habitats
Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
10 m tow, all habitats
Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
Scrape spoon across any obvious benthic mats, sticks, rocks, substrate and macrophytes
Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
<u>GREY TERN</u>	<u>207</u>	<u>0</u>			
<u>Shorebird</u>	<u>25</u>	<u>0</u>			
<u>Red-necked Avocet</u>	<u>80</u>	<u>0</u>			
<u>Black-winged Stilt</u>	<u>3</u>	<u>0</u>			
			Total species	<u>4</u>	

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



ABP013

Water Chemistry

Site Code YL 1 Site name LAKE YENYENING Date 25-09-06

Personnel MDS BDS

Max depth of wetland 27cm

Max depth measured at CENTRE WETLAND

pH		<u>8.11</u>	[H ⁺]		
Temperature		<u>22.4</u>	(°C)		
Conductivity		<u>84400</u>	(µS cm ⁻¹)		ppM
DO	(TOP)	<u>124</u>	(%)	<u>10.26</u>	ppM mg/l
	(BOTTOM)	<u>122</u>	(%)	<u>10.10</u>	ppM mg/l

*TOP measurements 15 cm below water surface

*BOTTOM measurements ~ 8 cm above sediment

Check (✓)

- 125 mL water sample, filtered and frozen
Nutrients
- 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
- 250 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
- 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

Check (✓)

- Water column sample Volume filtered 750 mL
Default = 500 mL
- Benthic sample Place 2 drops of MgCO₃ with sample
- Benthic sample - replicate No MgCO₃

} NO BENTHIC MAT.

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



Habitat

ABP012

Site Code R2NM Site name Dowerin-Kalannie Rd Date 22-09-06

Personnel BDS + MDS

Site details 80-100m diameter circular lake. Homogeneous sand over clay substrate

No habitat diversity. No overhanging veg. Small shrubs & a few trees surrounding wetland. Large beds of detritus. Rock-hard salt layer in centre of lake

Photo 1-bearing (facing wetland) # 38

Fence dropper placed? YES (NO)

Location Photos & GPS taken from reflective marker on road

Photo 2-bearing (facing away from wetland) 39

Include fence dropper in foreground of each photo

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1 -
 May need up to 10 quadrats in 2
 Sparse macrophyte 3
4
5

Water level 1 -
 Water level 2 -
 Water level 3 -
 Water level 4 -
 Water level 5 -

Macrophyte sheet numbers NO MACROPHYTE

Check (✓)

Macrophyte biomass collected
 5 x 25 cm square quadrats, store in calico bags

} NO MACROPHYTE

Macrophyte species collected and photographed
 Press each specimen
 Preserve sample in 100% ethanol, store in large zip-lock bags

Invertebrate 250 µm sample
 50 m over 200 m, sweep sediments, all habitats
 Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
 50 m over 200 m, DO NOT sweep sediments, all habitats
 Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
 10 m tow, all habitats
 Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
 Scrape spoon across any obvious benthic mats, sticks, rocks, substrate and macrophytes
 Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
<u>NONE</u>					
			Total species		

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



Water Chemistry ABPO12

Site Code R2NM Site name Dowerin-Kalannie Rd Date 22-09-06

Personnel BOS + MDS

Max depth of wetland 50cm

Max depth measured at centre of wetland (~40m west of road)

pH	<u>2.69</u> [H ⁺]	
Temperature	<u>15.1</u> (°C)	
Conductivity	<u>205 mS cm⁻¹</u> (µS cm⁻¹)	<u>ABOVE LIMIT</u> ppm
DO (TOP)	<u>102.5 (E7 error)</u> (%)	<u>11.67 mg L⁻¹ (E7 error)</u> ppm
DO (BOTTOM)	<u>117.3 (")</u> (%)	<u>10.66 mg L⁻¹ (")</u> ppm

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 250 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample Volume filtered 600 mL
Default = 500 mL
 - Benthic sample } NO BENTHIC MAT
 - Benthic sample - replicate }
Place 2 drops of MgCO₃ with sample
No MgCO₃

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



Habitat

ABP011

Site Code RK4EM Site name Camble Rd Date 21-09-06

Personnel BOS + MOS

Site details Evidence of recent algal bloom: dried-out algae in sheets in
falling riparian bushes. Very deep (~75cm); extremely windy & turbid

Photo 1 bearing (facing wetland) 33

Fence dropper placed? YES (NO)
 Location Pink tape tied to existing fence post

Photo 2 bearing (facing away from wetland) 34

Include fence dropper in foreground of each photo

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1	<u>-</u>	Water level 1	<u>-</u>
May need up to 10 quadrats in	<u>2</u>	Water level 2	<u>-</u>
Sparse macrophyte	<u>3</u>	Water level 3	<u>-</u>
	<u>4</u>	Water level 4	<u>-</u>
	<u>5</u>	Water level 5	<u>-</u>

Macrophyte sheet numbers NO MACROPHYTE

Check (✓)

Macrophyte biomass collected
 5 x 25 cm square quadrats, store in calico bags

} NO MACROPHYTE
 }

Macrophyte species collected and photographed
 Press each specimen
 Preserve sample in 100% ethanol, store in large zip-lock bags

Invertebrate 250 µm sample
 50 m over 200 m, sweep sediments, all habitats
 Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
 50 m over 200 m, DO NOT sweep sediments, all habitats
 Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
 10 m tow, all habitats
 Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
 Scrape spoon across any obvious benthic mats, sticks, rocks,
 substrate and macrophytes
 Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
<u>NONE</u>					
			Total species		

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



ABP011

Water Chemistry

Site Code R14EM Site name GAMBLE RD Date 21-09-06

Personnel MDS & BDS

Max depth of wetland 75cm

Max depth measured at 30m OUT TO CENTRE OF WETLAND FROM WATER LINE

pH	<u>3.16</u>	[H ⁺]	
Temperature	<u>19.5</u>	(°C)	
Conductivity	<u>121900</u>	(µS cm ⁻¹)	<u>UPPER LIMITS</u> ppm
DO (TOP)	<u>68.5</u>	(%)	<u>5.89</u> ppm mg/l
DO (BOTTOM)	<u>66.3</u>	(%)	<u>5.67</u> ppm mg/l

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 50 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample
Volume filtered 500 mL
Default = 500 mL
 - Benthic sample
Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate
No MgCO₃

DEPARTMENT OF ENVIRONMENTAL AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



Habitat ABPOW

Site Code R348 Site name _____ Date 25-9-06

Personnel M. Barton and J. Cuckling

Site details _____

Photo 1 bearing (facing wetland) 145

Fence dropper placed? YES (NO)
 Location Use solar pump.

Photo 2 bearing (facing away from wetland) 152

Include fence dropper in foreground of each photo.

Macrophyte cover across wetland 70 %

Macrophyte height at quadrat 1	<u>35</u>
May need up to 10 quadrats in	<u>2 35</u>
Sparse macrophyte	<u>3 5</u>
	<u>4 15</u>
	<u>5 35</u>

Water level 1	<u>30</u>
Water level 2	<u>30</u>
Water level 3	<u>30</u>
Water level 4	<u>30</u>
Water level 5	<u>30</u>

Macrophyte sheet numbers _____

Check (✓)

Macrophyte biomass collected
 5 x 25 cm square quadrats, store in calico bags.

Macrophyte species collected and photographed
 Press each specimen
 Preserve sample in 100% ethanol, store in large ziplock bags

photo 149-151

Invertebrate 250 µm sample
 50 m over 200 m, sweep sediments, all habitats
 Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
 50 m over 200 m, DO NOT sweep sediments, all habitats
 Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
 10 m tow, all habitats
 Preserve in 1.5 mL Lugols (weak tea), store in square vials.

Diatoms collected
 Scrape spoon across any obvious benthic mats, slicks, rocks,
 substrate and macrophytes
 Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
<u>Black Swan</u>	<u>4</u>				
<u>White Face Heron</u>	<u>3</u>				

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



Water Chemistry

ABP027

Site Code B34LR Site name _____ Date 25-9-06

Personnel HSB JSC

Max depth of wetland 30m

Max depth measured at anywhere

pH		<u>9.99</u> [H ⁺]	
Temperature		<u>25.1</u> (°C)	
Conductivity		<u>31.3</u> (µS cm ⁻¹)	<u>15.6</u> ppM
DO	(TOP)	<u>177.1</u> (%)	<u>14.0</u> ppM
	(BOTTOM)	_____ (%)	_____ ppM

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

125 mL water sample, filtered and frozen

Nutrients

Check (✓)



250 mL water sample, acid-wash bottles, filtered

Chem centre metals analysis



250 mL water sample, acid-wash bottles, filtered

DoW trace metals analysis



500 mL water sample, unfiltered

Ionic composition



CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

Check (✓)

Water column sample



Volume filtered 500 mL

Default = 500 mL

Benthic sample

Place 2 drops of MgCO₃ with sample



Benthic sample - replicate

No MgCO₃



DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



ABP026

Water Chemistry

Site Code R35LR Site name KURRENKUTTEN Date 25-9-06

Personnel HSB SSC

Max depth of wetland 1.10

Max depth measured at _____

pH	<u>10.15</u>	[H ⁺]	
Temperature	<u>19.3</u>	(°C)	
Conductivity	<u>27.9</u>	(µS ^{mS} cm ⁻¹)	<u>14.0</u> ppM ⁺
DO (TOP)	<u>125.9</u>	(%)	<u>11.29</u> ppM
DO (BOTTOM)	<u>152.6</u>	(%)	<u>13.92</u> ppM

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

Check (✓)

- 125 mL water sample, filtered and frozen
Nutrients
- 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
- 10 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
- 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

Check (✓)

- Water column sample
- Benthic sample
Place 2 drops of MgCO₃ with sample
- Benthic sample - replicate
No MgCO₃

Volume filtered 500 ml mL
 Default = 500 mL

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
ND001: Baseline Wetland Diversity in the Avon



ABP025

Habitat

Site Code R3FLR Site name KONDININ LAKE STH Date 24-9-06

Personnel H. BARRON + J. COCKING

Site details Approx 5 km E of Kondinin Townsite on southern edge of Kondinin Lake.

Photo 1 bearing (facing wetland) 130 Fence dropper placed? YES NO
Location _____

Photo 2 bearing (facing away from wetland) 131

Include fence dropper in foreground of each photo

Macrophyte cover across wetland 80 %

Macrophyte height at quadrat 1 10
May need up to 10 quadrats in 2 20
Sparse macrophyte 3 20
4 10
5 20

Water level 1 25
Water level 2 50
Water level 3 30
Water level 4 50
Water level 5 50

Macrophyte sheet numbers 3a, 3b, 4a, 4b PHOTO 132-134, 140

Check (✓)

Macrophyte biomass collected
5 x 25 cm square quadrats, store in calico bags

Macrophyte species collected and photographed
Press each specimen
Preserve sample in 100% ethanol, store in large zip-lock bags

Invertebrate 250 µm sample
50 m over 200 m, sweep sediments, all habitats
Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
50 m over 200 m, DO NOT sweep sediments, all habitats
Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
10 m tow, all habitats
Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
Scrape spoon across any obvious benthic mats, sticks, rocks, substrate and macrophytes
Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
Black Swan	277		Herd Head Duck	10	
Gray Teal	420		Hoary Headed Grebe	7	
Shall Duck	84		Eurasian Coot	745	
Musk Duck	3		White Face Heron	14	
Black Duck	1		Silver Cull	2	
Shoveller Duck	18		Total species	12	
Whistling Kite	3				

Aist.



ABPOZS

Water Chemistry

Site Code R37LR Site name KONDININ LAKE STA Date 24-9-06

Personnel J. COCKING + H. BARRON

Max depth of wetland 80 cm (in sample zone)

Max depth measured at 60 m N of Peg

pH		<u>8.93</u>	[H ⁺]	
Temperature		<u>16.2</u>	(°C)	
Conductivity		<u>36.9</u>	(μ S cm ⁻¹)	<u>18.2</u> ppM
DO	(TOP)	<u>92.1</u>	(%)	<u>8.72</u> ppM
	(BOTTOM)	<u>89.3</u>	(%)	<u>8.43</u> ppM

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

Check (✓)

- 125 mL water sample, filtered and frozen
Nutrients
- 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
- 10 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
- 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

Check (✓)

- Water column sample
- Benthic sample
Place 2 drops of MgCO₃ with sample
- Benthic sample - replicate
No MgCO₃

Volume filtered 500 mL
 Default = 500 mL

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
ND001: Baseline Wetland Diversity in the Avon



Habitat ABPO24

Site Code R40cl Site name Lake Counter Date 24-9-06

Personnel H. Bennon + J. Cocking

Site details _____

Photo 1 bearing (facing wetland) # 69

Fence dropper placed? YES/NO
Location 30 m Sth of boat access.

Photo 2 bearing (facing away from wetland) # 70

Include fence dropper in foreground of each photo

Macrophyte cover across wetland _____ %

Macrophyte height at quadrat 1 _____
May need up to 10 quadrats in 2 _____
Sparse macrophyte 3 _____
4 _____
5 _____

Water level 1 _____
Water level 2 _____
Water level 3 _____
Water level 4 _____
Water level 5 _____

Macrophyte sheet numbers _____

Check (✓)

Macrophyte biomass collected
5 x 25 cm square quadrats, store in calico bags

NA

Macrophyte species collected and photographed
Press each specimen
Preserve sample in 100% ethanol, store in large zip-lock bags

NA

Invertebrate 250 µm sample
50 m over 200 m, sweep sediments, all habitats
Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
50 m over 200 m, DO NOT sweep sediments, all habitats
Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
10 m tow, all habitats
Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
Scrape spoon across any obvious benthic mats, sticks, rocks,
substrate and macrophytes
Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
			Total species		



AB0024

Water Chemistry

Site Code R40CR Site name LAKE COUNTER Date 24 9-08

Personnel HSR JSZ

Max depth of wetland 40cm

Max depth measured at Depth gauge.

pH	<u>2.65</u>	[H ⁺]	
Temperature	<u>22.7</u>	(°C)	
Conductivity	<u>191.3</u>	^{mS} (µS cm ⁻¹)	<u>96.1</u> ppm ⁺
DO	(TOP) <u>92.8</u>	(%)	<u>7.8</u> ppm
	(BOTTOM) _____	(%)	_____ ppm

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 250 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated ^{frozen}

- Check (✓)
- Water column sample Volume filtered 500 mL
Default = 500 mL
 - Benthic sample
 - Benthic sample - replicate

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



Habitat

ABP023 smj 19/7/07

Site Code R39CR Site name GRAHAM ROCK LAKE Date 24-9-06

Personnel JSC + HJB

Site details _____

Photo 1 bearing (facing wetland) 54

Fence dropper placed? YES/NO

Location NOT NEEDED
 USE "HUMPY" PICKETS.

Photo 2 bearing (facing away from wetland) 55

Include fence dropper in foreground of each photo

Macrophyte cover across wetland 1 %

Macrophyte height at quadrat 1 20 cm
 May need up to 10 quadrats in 2 30 cm
 Sparse macrophyte 3 20 cm
 4 20 cm
 5 20 cm

Water level 1 25 cm
 Water level 2 25 cm
 Water level 3 25 cm
 Water level 4 25 cm
 Water level 5 25 cm

Macrophyte sheet numbers R39CR 2a + 2b

Check (✓)

Macrophyte biomass collected
 5 x 25 cm square quadrats, store in calico bags

Macrophyte species collected and photographed
 Press each specimen
 Preserve sample in 100% ethanol, store in large zip-lock bags

Invertebrate 250 µm sample
 50 m over 200 m, sweep sediments, all habitats
 Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
 50 m over 200 m, DO NOT sweep sediments, all habitats
 Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
 10 m tow, all habitats
 Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
 Scrape spoon across any obvious benthic mats, sticks, rocks,
 substrate and macrophytes
 Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
HOODED PLOVER	2	PAIR			
BLACK WINGED STILT	1	1MM			
			Total species		

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



Water Chemistry ABP023 SMT 19/1/07

Site Code R39CR Site name GRAHAM ROCK LAKE Date 24-9-06

Personnel HSB JSC

Max depth of wetland 1.50

Max depth measured at Middle

pH	<u>7.86</u>	[H ⁺]	
Temperature	<u>17.8</u>	(°C)	
Conductivity	<u>120.4</u>	<u>MS</u> (µS cm ⁻¹)	<u>59.7</u> pp m ⁺
DO	(TOP) <u>102.5</u>	(%)	<u>9.40</u> ppM
	(BOTTOM) <u>103.4</u>	(%)	<u>9.53</u> ppM

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 100 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample
 - Benthic sample X
Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate X
No MgCO₃

Volume filtered 500 ml mL
 Default = 500 mL

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
ND001: Baseline Wetland Diversity in the Avon



ABP022 SMT 19/7/09

Habitat

Site Code LC18 Site name _____ Date 23-9-06

Personnel JSC + HJB

Site details _____

Photo 1 bearing (facing wetland) 36 Fence dropper placed? YES/NO
Location _____

Photo 2 bearing (facing away from wetland) 37
Include fence dropper in foreground of each photo

Macrophyte cover across wetland < 1.0 %

Macrophyte height at quadrat 1	-	6	-	Water level 1	<u>20 cm</u>	6	<u>30 cm</u>
May need up to 10 quadrats in	2	-	7	Water level 2	<u>20 cm</u>	7	<u>30 cm</u>
Sparse macrophyte	3	-	8	Water level 3	<u>30 cm</u>	8	<u>30 cm</u>
	4	<u>30 cm</u>	9	Water level 4	<u>30 cm</u>	9	<u>10 cm</u>
	5	-	10	Water level 5	<u>30 cm</u>	10	<u>10 cm</u>

Macrophyte sheet numbers _____

Check (✓)

Macrophyte biomass collected < 1 % cover 10 throws
5 x 25 cm square quadrats, store in calico bags

Macrophyte species collected and photographed Photos: 38-41
Press each specimen
Preserve sample in 100% ethanol, store in large zip-lock bags

Invertebrate 250 µm sample
50 m over 200 m, sweep sediments, all habitats
Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample
50 m over 200 m, DO NOT sweep sediments, all habitats
Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample
10 m tow, all habitats
Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected
Scrape spoon across any obvious benthic mats, sticks, rocks,
substrate and macrophytes
Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
			Total species		

None observed

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



ABP 022 smj 19/7/07

Water Chemistry

Site Code LC18 Site name _____ Date _____

Personnel JSC + HJB

Max depth of wetland 70 cm

Max depth measured at _____

pH		<u>3.74</u>	[H ⁺]	
Temperature		<u>22.5</u>	(°C)	
Conductivity		<u>68.5</u>	(μ S cm ⁻¹)	<u>34.1</u> ppM T
DO	(TOP)	<u>103.2</u>	(%)	<u>8.98</u> ppM
	(BOTTOM)	<u>84.6</u>	(%)	<u>7.45</u> ppM

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
 Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
 Chem centre metals analysis
 - 250 mL water sample, acid-wash bottles, filtered
 DoW trace metals analysis
 - 500 mL water sample, unfiltered
 Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample Volume filtered 500 mL
 Default = 500 mL
 - Benthic sample N/A
 Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
ND001: Baseline Wetland Diversity in the Avon



Habitat

ABP021 smj 19/7/07

Site Code R7NM Site name _____ Date 22-9-06

Personnel HJB SSC

Site details _____

Photo 1 bearing (facing wetland) Nikon 17

Fence dropper placed? YES/NO
Location 10 m in from road.

Photo 2 bearing (facing away from wetland) Nikon 18

Include fence dropper in foreground of each photo

Macrophyte cover across wetland 0 %

Macrophyte height at quadrat 1 _____
2 _____
3 _____
4 _____
5 _____

Water level 1 _____
Water level 2 _____
Water level 3 _____
Water level 4 _____
Water level 5 _____

Macrophyte sheet numbers _____

Check (✓)

Macrophyte biomass collected

5 x 25 cm square quadrats, store in calico bags

X

Macrophyte species collected and photographed

Press each specimen

Preserve sample in 100% ethanol, store in large zip-lock bags

X

Invertebrate 250 µm sample

50 m over 200 m, sweep sediments, all habitats

Preserve in 100% ethanol, store in 2 L pot

Zooplankton 50 µm sample

50 m over 200 m, DO NOT sweep sediments, all habitats

Preserve in 4% formalin, store in 120 mL polycarb vials

Phytoplankton 35 µm sample

10 m tow, all habitats

Preserve in 1.5 mL Lugols (weak tea), store in square vials

Diatoms collected

Scrape spoon across any obvious benthic mats, sticks, rocks, substrate and macrophytes

Preserve in 4% formalin, store in McCartney vial

Waterbird species	Abund.	Broods	Waterbird species	Abund.	Broods
X					
			Total species-		

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 ND001: Baseline Wetland Diversity in the Avon



ABP0021 SWJ/19/7/07

Water Chemistry

Site Code R7NM Site name _____ Date 22-9-06

Personnel HSB JSL

Max depth of wetland 25cm

Max depth measured at middle

pH	<u>2.56</u>	[H ⁺]	
Temperature	<u>24.5</u>	(°C)	
Conductivity	<u>113.4</u>	(µS cm ⁻¹)	<u>56.5</u> ppM
DO (TOP)	<u>96.1</u>	(%)	<u>7.72</u> ppM
DO (BOTTOM)	_____	(%)	_____ ppM

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

Check (✓)

- 125 mL water sample, filtered and frozen
 - Nutrients
- 250 mL water sample, acid-wash bottles, filtered
 - Chem centre metals analysis
- 250 mL water sample, acid-wash bottles, filtered
 - DoW trace metals analysis
- 500 mL water sample, unfiltered
 - Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

Check (✓)

- Water column sample Volume filtered 500 mL
 Default = 500 mL
 - Benthic sample
 - Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate
 - No MgCO₃
- } No mat present.



ABP028

Water Chemistry

Site Code Y414 Site name _____ Date 26-9-06

Personnel HSB JSC

Max depth of wetland 50cm

Max depth measured at middle

pH		<u>8.08</u>	[H ⁺]	
Temperature		<u>23.4</u>	(°C)	
Conductivity		<u>115.6</u>	(µS cm ⁻¹)	<u>57.9</u> ppm ppt
DO	(TOP)	<u>92.4</u>	(%)	<u>7.81</u> ppm
	(BOTTOM)	_____	(%)	_____ ppm

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

- Check (✓)
- 125 mL water sample, filtered and frozen
Nutrients
 - 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
 - 50 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
 - 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

- Check (✓)
- Water column sample
 - Benthic sample
Place 2 drops of MgCO₃ with sample
 - Benthic sample - replicate
No MgCO₃

Volume filtered 500 mL
 Default = 500 mL





ABP029

Water Chemistry

Site Code YY3 Site name ROCKY LAKE Date 26-9-06

Personnel H. Barron + J. Cockings

Max depth of wetland 1.5 m

Max depth measured at ≈ 150m N of peg.

pH	<u>9.63</u>	[H ⁺]	
Temperature	<u>22.6</u>	(°C)	
Conductivity	<u>61.6</u>	(μS cm ⁻¹)	<u>30.9</u> ^{ppt} ppM
DO (TOP)	<u>12.27</u>	(%)	<u>135.7</u> ppM
DO (BOTTOM)	<u>12.54</u>	(%)	<u>138.0</u> ppM

*TOP measurements 15 cm below water surface
 *BOTTOM measurements ~ 8 cm above sediment

Check (✓)

- 125 mL water sample, filtered and frozen
Nutrients
- 250 mL water sample, acid-wash bottles, filtered
Chem centre metals analysis
- 250 mL water sample, acid-wash bottles, filtered
DoW trace metals analysis
- 500 mL water sample, unfiltered
Ionic composition

CHLOROPHYLL

All samples to be placed in a snap-lock bag and refrigerated

Check (✓)

- Water column sample
- Benthic sample
Place 2 drops of MgCO₃ with sample
- Benthic sample - replicate
No MgCO₃

Volume filtered 500 mL
 Default = 500 mL



10
11

