MIRIAM VALE SHIRE COUNCIL

AGNES WATER SEWERAGE SCHEME

Agnes Water is a coastal town of about 1000 EP (equivalent persons) growing at around 30% per annum.
Agnes Water Sewage Treatment Plant is located 7km south of Agnes Water on 3607ha of land purchased for water supply & sewerage purposes.
The site was considered the only environmentally acceptable site after extensive investigations of all land within 10km of Agnes Water & an ocean outfall option.
The site allows a buffer zone of 1.6km to the nearest residence & 3.5km to Deepwater Creek & Deepwater National Park downstream of the treatment plant.
When the water supply & sewerage requirements have been finalised the remaining land will be available for other community uses.

The scheme was made possible by an interest free loan from the Department of Local Government & Planning, Queensland.

The Stage 1 plant (1500EP) includes 3 treatment lagoons & a stormwater lagoon with a total capacity of 35Ml. Planning for stage 2 is nearing completion.
This will allowing for increased population & sewage from Seventeen Seventy to be treated & reused replacing a package treatment plant in a heritage area.
All effluent is reused for irrigation - trial crops include melaleuca, hardwoods, bamboo, palms & turf. Stage 1 irrigation area is 35ha.
It is anticipated that the reuse facility will become a commercial venture as the scheme grows reducing costs to the community.
No power is required for treatment & normal effluent reuse. A small diesel powered pump is used when water from the stormwater lagoon is used.

The large majority of scheme including sewers & pumping stations for 7500EP was constructed by Council staff; local contractors completed the other works.

AGNES WATER SEWERAGE SCHEME - EFFLUENT REUSE - QUALITY MONITORING

Some of the monitoring, as required by EPA Queensland, is included in the following sheets.
These sheets are the first to be published on Council's website. Additional information will be included later as the information is assembled in suitable format.

NOTES:

1	H1	EPA licence requirements - section H Table 1	Deepwater Creek	3 sites
2	H2	EPA licence requirements - section H Table 2	Treated effluent reused for irrigation	
3	H3	EPA licence requirements - section H Table 3	Soils	*refer temp. DPI H&FS sheets*
4	H4	EPA licence requirements - section H Table 4	Stormwater	8 sites
5	H5	EPA licence requirements - section H Table 5	Groundwater	8 sites

6 Location of monitoring points - EPA Schedule J, Figure 1, July 2000 - refer following plan from documents nos. 10.03 & 10.04

7 Frequency of monitoring is given on each sheet in months, highlighted in yellow.

8 Licence water quality requirements included in H2 are highlighted in orange; from EPA licence Schedule E Table 1 page 12.

9 Date spreadsheet updated - 17 July 2008

ABBREVIATIONS:

ND	not detected
NR	analysis not required
dry	dry or insufficient water to test

MIRIAM VALE SHIRE COUNCIL Spreedsheet last updated 17/07/2008 *1/August/2005*

AGNES WATER SEWERAGE SCHEME **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** *D401MONK.xls*

H1 DEEPWATER CREEK

		pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform	Depth
SAMPLE		pH	EC	SS	Turb.	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4			Chl.'a'	SAR		FC	
Date	By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml	TOC - m
Frequency - months		1/2 *	NR #	1/2 *	1/2 *	NR	NR	NR	NR	NR	NR	NR	NR	NR	3	1/2 *	3	NR	NR	NR	NR	NR	NR	3	NR	NR	3	NR
DEEPWATER CR.		SITES - M1, M2 & M3; DEEPWATER CREEK; SURFACE WATER																* frequency - 1 month during wet season, 2 months in wet season										
SITE - M1		**DEEPWATER - UPSTREAM**				Co-ordinates				560,389,414		E						7311699		N				Elevation	*2.00*			m AHD
Surface Water										151° 54' 38"		E						24° 18' 15"		S								
26-Oct-00	EMS	5.8	247	7.0	11										<1	7.5	0.60							0.4			5	
18-Dec-00	EMS	6.3	160	7.0	18		16.0	0.01							0.80	5.4	0.40				2.0			0.5			-	
18-Jan-01	EMS	5.8	201	15.0	28		8.0	0.15							0.45	6.0	<0.1				2.0			1.7			4	
20-Feb-01	EMS	5.2	417	10.0	30		3.0	0.10							0.15	4.8	0.28				15.0			0.8			-	
22-Mar-01	EMS	5.8	128	2.0	10										<0.1	7.4	0.40							1.2			-	
22-May-01	EMS	4.6	126	2.0	25		1.0	0.10							<0.1	4.6	0.50				2.0			0.4			ND	
1-Jun-01	EMS	6.5	170	2.0	4		12.0	0.04							0.50	7.0	0.70				7.0			0.4			-	
18-Sep-01	EMS	5.8	81	2.0	4		9.0	0.02							0.40	5.9	0.30				1.0			0.5			12	

Note - H1 water monitoring - part of a one year macroinvertibrate study within Deepwater National Park; two macroinvertibrate runs are planned in 2004-05 (October - dry season & one in the wet season) as part of the stage 2 study

16-Mar-04	MVSC	5.0	NR	6.0	2										2.50	5.7	11.60							0.6			NR	
16-Apr-04	MVSC	8.7	NR	58.0	18										NR	7.1	NR							0.3			200	
16-Jun-04	MVSC	5.2	NR	3.0	13										1.10	5.2	0.90							1.2			ND	
21-Jul-04	MVSC	5.7	NR	4.0	30										NR	6.4	NR							<0.1			30	
24-Aug-04	MVSC	5.5	NR	1.0	8										NR	6.2	NR							1.6			-	
21-Sep-04	MVSC	6.3	NR	6.0	12										<0.1	6.1	<0.1							0.2			ND	
10/Oct/04	EMS	5.4	123	12.0	3		7.0	0.06							0.70	5.9	0.50				10.0			0.7			20	
21/Sep/04	MVSC	6.3	NR	6.0	12		NR	NR							<0.1	6.1	<0.1				NR			0.2			ND	
24/Nov/04	MVSC																										100	
14/Dec/04	MVSC	7.0	NR	1.0	5		NR	NR							1.00	6.3	0.80				NR			0.6			300	
11/Jan/05	MVSC	5.3	NR	1.0	2		NR	NR							NR	4.8	NR				NR			<0.1			470	
1-Feb-05	MVSC	NO REPORT RECEIVED samples				sent																					100	
1-Mar-05	MVSC	5.1	168	9.0	2		8.0	0.08							0.20	3.7	0.60				8.0			0.2			3	
27-Apr-05	MVSC	5.7		1.0	10										-	8.5	-				-			3.0			300	
23-May-05	MVSC	5.6	-	5.0	10		-	-							-	2.2	-				-			2.4			5	
27-Jun-05	MVSC	6.7		15.0	8										1.90	5.8	0.40							1.0			170	
30-Aug-05	MVSC	5.2		18.0	4										0.10	5.7	<0.1							2.3			20	
27-Sep-05	MVSC	6.7		15.0	4										0.10	5.3	<0.1							1.3			ND	
27-Oct-05	MVSC	5.6		5.0	18										2.20	5.3	1.40							<0.1			100	
31-Jan-06	MVSC	5.1		2.0	23										0.50	5.6	0.50							3.3			120	
6-Mar-06	MVSC	7.1		4.0	30										10.00	7.9	0.40							1.1				
30-Mar-06	MVSC																										ND	

MIRIAM VALE SHIRE COUNCIL Spreedsheet last updated 17/07/2008 *1/August/2005*

AGNES WATER SEWERAGE SCHEME **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** *D401MONK.xls*

H1 DEEPWATER CREEK

Date	By	pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform	Depth
SAMPLE		pH	EC	SS	Turb.	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4			Chl.'a'	SAR		FC	
			µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml	TOC - m
Frequency - months		1/2 *	NR #	1/2 *	1/2 *	NR	NR	NR	NR	NR	NR	NR	NR	NR	3	1/2 *	3	NR	NR	NR	NR	NR	NR	3	NR	NR	3	NR
DEEPWATER CR.		SITES - M1, M2 & M3; DEEPWATER CREEK; SURFACE WATER																* frequency - 1 month during wet season, 2 months in wet season										
26-Apr-06	MVSC	9.3		13.0	23										ND	6.6	ND							1.1			70	
30-May-06	MVSC	7.4		5.0	25										ND	4.3	ND							2.8			56	
21-Jun-06	MVSC	5.4		1.0	23										1.00	7.1	0.10							2.3			100	
23-Aug-06	MVSC																										4	
13-Dec-06	MVSC	5.7		12.0	22										0.60	5.9	0.40							0.1			ND	
31-Jan-07	MVSC	5.6		5.0	12										ND	7.2	ND							2.1			ND	
15-Mar-07	MVSC	5.8		15	58										<0.1	3.6	0.5							6.1			34	
25-Jun-07	MVSC	7.2		0.1	28										2.8	6.2	0.40							0.2				
31-Jul-07	MVSC	6.6		1.0	1										NR	8.3	NR							6.0			NR	
31-Jul-07	MVSC	6.6		1.0	1										NR	8.3	NR							pending			NR	
22-Aug-07	MVSC	6.4			1										NR	8.1	NR							9.5			NR	
11-Sep-07	MVSC	5.8		9.0	18.94										<0.1	6.1	0.39							<5			610	
22-Oct-07	MVSC	6.8		2.0	2.78										NR	7.4	NR							5.0			NR	
28-Nov-07	MVSC	5.0		7.0	15.44										NR	7.0	NR							22.0			NR	
10-Dec-07	MVSC	4.5		3.0	12.34										34.00	6.6	0.15							32.0			100	
20-Feb-08	MVSC	5.0		10.0	16.44										NR	6.8	NR							Pending			NR	

		pH	EC	SS	Turb.	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4	0.0	0.0	Chl.'a'	SAR	0.0	FC	

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AGNES WATER SEWERAGE SCHEME — **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** — *D401MONK.xls*

H1 DEEPWATER CREEK

	pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform	Depth
SAMPLE	pH	EC	SS	Turb.	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4			Chl.'a'	SAR		FC	
Date By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml	TOC - m
Frequency - months	1/2 *	NR #	1/2 *	1/2 *	NR	NR	NR	NR	NR	NR	NR	NR	NR	3	1/2 *	3	NR	NR	NR	NR	NR	NR	3	NR	NR	3	NR
DEEPWATER CR.	SITES - M1, M2 & M3; DEEPWATER CREEK; SURFACE WATER																										

* frequency - 1 month during wet season, 2 months in wet season

SITE - M2 — **DEEPWATER - BRANCH** — Coordinates 560390050 E 7311632 N — Elevation *2.00* m AHD

Surface Water — EPA - H1 (Deepwater) & H4 (Stormwater) — 151° 54' 59" 39545.0 24° 18' 16" S

		pH	EC	SS	Turb.	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4			Chl.'a'	SAR		FC	
26-Oct-00	EMS	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry			dry	dry	dry	dry	dry		dry	dry			dry	dry		dry	
18-Dec-00	EMS	6.2	215	11.0	25		19.0	0.03							0.10	6.2	0.70				8.0			0.1			-	
18-Jan-01	EMS	5.9	323	19.0	25		7.0	0.10							0.45	7.5	<0.1				8.0			0.7			59	
20-Feb-01	EMS	5.2	174	10.0	60		2.0	0.05							0.32	5.5	0.31				40.0			0.6			-	
22-Mar-01	EMS	5.6	128	12.0	35										2.30	8.2	0.40							3.5			-	
22-May-01	EMS	4.5	232	2.0	15		0.0	0.10							<0.1	7.1	0.60				1.0			2.7			ND	
1-Jun-01	EMS	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry			dry	dry	dry	dry		dry	dry				dry			dry	
18-Sep-01	EMS	5.5	214	4.0	10		9.0	0.01							0.40	4.6	0.20				30.0			1.2			70	

Note - H1 water monitoring - part of a one year macroinvertibrate study within Deepwater National Park; two macroinvertibrate runs are planned in 2004-05 (October - dry season & one in the wet season) as part of the stage 2 study

		pH	EC	SS	Turb.	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4			Chl.'a'	SAR		FC	
6-Jun-02	CMTS	5.5	139	25.0	-	83.4	?	1.80	<0.01	9.1	32.0			4.8	<10	<0.1	6.1	<0.1		0.90	25.8			?	1.70		300	
16-Mar-04	MVSC	5.2	NR	5.0	1											0.50	5.0	<0.1						0.8			NR	
16-Apr-04	MVSC	8.2	NR	6.0	5											NR	4.9	NR						0.1			ND	
17-May-04	MVSC	5.2	NR	3.0	6											NR	5.9	NR						1.4			NR	
16-Jun-04	MVSC	5.0	NR	30.0	21											1.70	5.4	0.60						0.4			ND	
21-Jul-04	MVSC	5.1	NR	28.0	8											NR	6.8	NR						1.9			80	
24-Aug-04	MVSC	dry	dry	dry	dry		dry	dry								dry	dry	dry			dry			dry			dry	
27-Sep-04	MVSC	dry	dry	dry	dry		dry	dry								dry	dry	dry			dry			dry			dry	
10/Oct/04	EMS	dry	dry	dry	dry		dry	dry								dry	dry	dry			dry			dry			dry	
21/Sep/04	EMS	dry	dry	dry	dry		dry	dry								dry	dry	dry			dry			dry			dry	
24/Nov/04	MVSC																											
14/Dec/04	MVSC	dry	dry	dry	dry		dry	dry								dry	dry	dry			dry			dry			dry	
11/Jan/05	MVSC	5.1	NR	3.0	8		NR	NR								NR	5.7	NR			NR			<0.1			100	
1-Feb-05	MVSC	NO	RE	SULTS	AMPLE	SENT																					400	
27-Apr-05	MVSC	DRY		DRY																								
23-May-05	MVSC	DRY		DRY																								
27-Jun-05	MVSC	Dry	dry	dry	dry		dry	dry								dry	dry	dry			dry			dry			dry	
30-Aug-05	MVSC	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry		Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry ry	Dry
27-Sep-05	MVSC	DRY		DRY																								
27-Oct-05	MVSC	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry		Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry ry	Dry
31-Jan-06	MVSC	5.1		2.0	22											0.80	5.3	0.40						1.4			56	
6-Mar-06	MVSC	6.1		1.0	24											2.30	6.1	0.30						4.4				

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AGNES WATER SEWERAGE SCHEME **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** *D401MONK.xls*

H1 DEEPWATER CREEK

		pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform	Depth
SAMPLE		pH	EC	SS	Turb.	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4			Chl.'a'	SAR		FC	
Date	By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml	TOC - m
Frequency - months		1/2 *	NR #	1/2 *	1/2 *	NR	NR	NR	NR	NR	NR	NR	NR	NR	3	1/2 *	3	NR	NR	NR	NR	NR	NR	3	NR	NR	3	NR
DEEPWATER CR.		SITES - M1, M2 & M3; DEEPWATER CREEK; SURFACE WATER																* frequency - 1 month during wet season, 2 months in wet season										
30-Mar-06	MVSC																										ND	
26-Apr-06	MVSC	6.2		10.0	32										ND	5.9	ND							0.4			100	
30-May-06	MVSC	6.1		2.0	15										ND	8.0	ND							1.9			85	
21-Jun-06	MVSC	5.2		5.0	32										1.00	7.3	<0.1							1.6			200	
23-Aug-06	MVSC																										54	
13-Dec-06	MVSC	DRY		DRY	DRY										DRY	DRY	DRY							DRY			10	
31-Jan-07	MVSC	DRY		DRY	DRY										DRY	DRY	DRY							DRY			DRY	
1-Feb-07	MVSC																										16	
15-Mar-07	MVSC	5.8		13.0	50										0.80	3.2	0.80							5.4			28	
25-Jun-07	MVSC	DRY		DRY	DRY										DRY	DRY	DRY							DRY			DRY	
31-Jul-07	MVSC	NR		NR	NR	NR									NR		NR							NR			NR	
22-Aug-07	MVSC	NR		NR	NR										NR	NR	NR							NR			NR	
11-Sep-07	MVSC	5.2		6.0	34										<0.1	6.2	0.39							<5			920	
22-Oct-07	MVSC	6.0		1.0	1										NR	6.2	NR							<5			NR	
28-Nov-07	MVSC	5.3		11.0	40										NR	6.3	NR							<5			NR	
10-Dec-07	MVSC	4.7		77.0	14										17.00	5.5	0.54							10.0			300	
20-Feb-08	MVSC	4.8		14.0	10										NR	5.0	NR							Pending			NR	

	pH	EC	SS	Turb.	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4	0.0	0.0	Chl.'a'	SAR	0.0	FC

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AGNES WATER SEWERAGE SCHEME — **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** — *D401MONK.xls*

H1 DEEPWATER CREEK

	pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform	Depth
SAMPLE	pH	EC	SS	Turb.	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4			Chl.'a'	SAR		FC	
Date By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml	TOC - m
Frequency - months	1/2 *	NR #	1/2 *	1/2 *	NR	NR	NR	NR	NR	NR	NR	NR	NR	3	1/2 *	3	NR	NR	NR	NR	NR	NR	3	NR	NR	3	NR
DEEPWATER CR.	**SITES - M1, M2 & M3; DEEPWATER CREEK; SURFACE WATER**																										* frequency - 1 month during wet season, 2 months in wet season
SITE - M3	**DEEPWATER - DOWNSTREAM**				Coordinates				56390031		E						7310824		N				Elevation	*2.00*			m AHD
Surface Water									151° 54' 59"		E						24° 18' 41"		S								
26-Oct-00 EMS	5.7	230	6.0	11										<1	7.1	0.10							0.1			4	
18-Dec-00 EMS	6.2	140	6.0	18		15.0	0.04							1.30	6.2	0.40				14.0			0.1			-	
18-Jan-01 EMS	5.8	183	10.0	40		8.0	0.10							0.45	5.1	0.10				6.0			0.4			11	
20-Feb-01 EMS	5.3	193	1.0	35		3.0	0.05							0.06	5.9	0.28				30.0			0.1			-	
22-Mar-01 EMS	5.8	138	5.0	15										1.30	8.2	0.30							0.6			-	
1-Jun-01 EMS	6.2	146	1.0	4		8.0	0.03							0.90	6.9	0.40				7.0			0.6			-	
18-Sep-01 EMS	5.8	103	5.0	6		7.0	0.02							0.40	4.9	0.20				1.0			1.1			4	

Note - H1 water monitoring - part of a one year macroinvertibrate study within Deepwater National Park; two macroinvertibrate runs are planned in 2004-05 (October - dry season & one in the wet season) as part of the stage 2 study

10/Oct/04 EMS	5.7	113	8.0	5		6.0	0.06							<0.1	6.3	0.20				10.0			1.5			10	
21/Sep/04 MVSC	NR	NR	NR	NR		NR	NR							NR	NR	NR				NR			NR			NR	
Oct-04 MVSC	5.7	113	8.0	5		6.0	0.06							0.10	6.3	0.20				10.0			1.5			10	
M3 now NR by EPA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
30-Jan-06 MVSC	5.2	291	5.0		175.0	10.0	0.0	<0.1	34.6	69.0		4.1	<0.01	1.30	7.7	0.40		1.1	41.3					1.8		500	
	pH	EC	SS	Turb.	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4	0.0	0.0	Chl.'a'	SAR	0.0	FC	

NOTES:

- record EC for MVSC records

* - frequency - 1 month during wet season, 2 months in wet season

MIRIAM VALE SHIRE COUNCIL — Spreedsheet last updated 17/07/2008 — *1/August/2005*

AGNES WATER SEWERAGE SCHEME — **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** — *D401MONK.xls*

H2 WATER TO LAND

Date	By	pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as PO4)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform	Depth
SAMPLE		pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	PO4	K	Na	SO4	N-IS	IS	Chl.'a'	SAR	BOD5	FC	
			µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml	TOC -m
Frequency - months		1	1	1	NR	1	NR	NR	NR	6	NR	24	6	NR	3	1	3	NR	3	6	6	NR	1	1	1	6	1	1	
LICENCE LIMITS		6.5-8.5		30		SITES - IRRIGATION AREA or L3 or L4 OUTLETS																					20	1000	
SITE - MP02/1		**Lot 21 - Effluent Reuse Area**				Coordinates								N								E							Elevation
		EPA Table H2 - MONTHLY SAMPLES REQUIRED																											
10-Dec-01	MVSC	Sample taken at outlet from Lagoon 3 - see below																											
30-Apr-02	MVSC	Sample taken at outlet from Lagoon 3 - see below																											
6-Jun-02	CMTS	Sample taken at outlet from Lagoon 3 - see below																											
6-Jun-02	CMTS	5.7	198	586.0		119.0				11.7		<0.1	2.1		<0.1	7.0	0.10		0.30	0.80	17.9		<0.1	<0.1	<1	1.30	2.00	-	
14-Oct-02	MVSC	7.9	521	60.0		312.0				20.6		<0.1	7.7		8.30	4.5	11.10		0.30	5.20	97.7		<0.1	<0.1	15.3	4.70	6.00	-	
16-Jul-03	MVSC	6.9	853	97.0		511.8				15.0		<0.1	6.9		8.30	5.1	3.50	7.90	2.58	4.00	98.7		<1.0	<1.0	8.0	5.30	8.00	-	
6-Aug-03	MVSC }			58.0		before acetone treatment to remove algae																							
6-Aug-03	MVSC }			35.0		after acetone treatment to remove algae																							
10-Sep-03	MVSC	7.4	931	19.0		558.0				27.5		<0.1	6.8		7.20	2.3	8.80	2.90	0.95	10.60	148.9		<1.0	<1.0	2.8	6.60	138.00	>1000	
10-Sep-03	MVSC	Sample taken at outlet from Lagoon 3 - see below																											
4-Dec-03	MVSC	Sample taken at outlet from Lagoon 3 - see below																										8800	
1-Mar-04	MVSC	9.5	663	61.0		397.8				32.5		<0.1	14.3		0.10	6.3	2.90	7.50	2.45	7.10	55.4		<1.0	<1.0	10.2	2.00	24.00	200	
15-Apr-04	MVSC	8.7	672	42.0		403.0				NR		NR	NR		NR	6.0	NR	NR	NR	NR	NR		<1.0	<1.0	4.5	NR	18.00	1500	
17-May-04	MVSC	7.3	693	18.0		415.0				NR		NR	NR		NR	3.0	NR	NR	NR	NR	NR		<1.0	<1.0	5.1	NR	27.00	-	
15-Jun-04	MVSC	Samples taken at outlets from Lagoon 3 & Lagoon 4 - see below																											
21-Jul-04	MVSC	Samples taken at outlets from Lagoon 3 & Lagoon 4 - see below																											
24-Aug-04	MVSC	Samples taken at outlets from Lagoon 3 & Lagoon 4 - see below																											
21-Sep-04	MVSC	Samples taken at outlets from Lagoon 3 & Lagoon 4 - see below																											
24-Nov-04	MVSC																											1000	
28-Jan-05	MVSC	7.0	952	70.0		571.0				27.8		<0.1	5.5		13.90	6.3	1.90	NR	1.10	6.60	105.9		0.4	0.03	0.1	4.8	39.00	16000	
27-Apr-05	MVSC	7.3	590	12.0		354.0										5.6							0.2	0.90	5.1			1000	
23-May-05	MVSC	7.2	934	50.0		560.0										2.4							0.3	1.10	4.8			1600	
28-Jun-05	MVSC	7.2	956	53.0	10 NTU	573.0				29.1		<0.1	6.0		15.00	1.3	21.70		9.60	9.20	99.9		0.3	0.90	0.1	4.4	36.00	4800	
30-Jan-06	MVSC	5.2	209	70.0		125.0	14	0.0	<0.1	31.4	45	<0.1	3.7	<0.01	1.50	7.40	0.50		1.30	36.90			0.3	0.9	1.7	4.4	800.00	4800	38747
30-Jan-06	MVSC	5.2	147	73.0		88.0	8.0	0.08	<0.1	31.4	29.0		5.7	<0.01	3.70	6.9	0.80		1.60	21.30					0.9		>1000	dry	38747
Jan-06	MVSC		5.5	240		144	5			28.7	55		3.4		3		0.1		1.1	36.9	4				1.7				38747
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	PO4	K	Na	SO4	N-IS	IS	Chl.'a'	SAR	BOD5	FC	

MIRIAM VALE SHIRE COUNCIL — Spreedsheet last updated 17/07/2008 — *1/August/2005*

AGNES WATER SEWERAGE SCHEME — **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** — *D401MONK.xls*

H2 WATER TO LAND

		pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as PO4)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform	Depth
SAMPLE		pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	PO4	K	Na	SO4	N-IS	IS	Chl.'a'	SAR	BOD5	FC	
Date	By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml	TOC -m
Frequency - months		1	1	1	NR	1	NR	NR	NR	6	NR	24	6	NR	3	1	3	NR	3	6	6	NR	1	1	1	6	1	1	
LICENCE LIMITS		6.5-8.5		30		SITES - IRRIGATION AREA or L3 or L4 OUTLETS																					20	1000	
SITE - LAGOON 3, NEAR OUTLET						Coordinates								N								E							Elevation
Lagoon 3 is the third treatment pond; ALTERNATIVE to MP02/1																													
10-Dec-01	MVSC	9.8	880	71.0		-				NR		NR	NR		1.00	-	0.90		NR	NR	NR		-	-	-	-	6.00	ND	
30-Apr-02	MVSC	7.6	1090	29.0		-				NR		NR	NR		0.70	-	1.20		NR	NR	NR		-	-	-	-	170.00	200	
6-Jun-02	CMTS	8.8	887	40.0		-				NR		NR	NR		1.80	-	5.60		NR	NR	NR		-	-	-	NR	27.00	600	
10-Sep-03	MVSC	7.5	945	26.0		567.0				27.5		<0.1	39545.0		12.50	2.4	12.10	4.00	1.30	10.80	109.4		<1.0	<1.0	2.4	4.90	120.00	>1000	
4-Dec-03	MVSC	8.2	806	12.0		484.0				24.8		<0.1	24.7		2.40	4.7	7.40	2.90	0.95	7.20	124.2		<1.0	<1.0	5.8	4.20	3.00	-	
1-Mar-04	MVSC	9.7	671	69.0		402.6				21.0		<0.1	4.5		0.30	8.3	2.70		6.80	7.10	49.4		<1.0	<1.0	7.4	2.60	15.00	100	
15-Jun-04	MVSC	7.8	442	59.0		265.0				NR		NR	NR		4.80	7.4	4.70	4.00		NR	NR		<1.0	<1.0	2.4	NR	39.00	500	
21-Jul-04	MVSC	6.9	786	25.0		471.0				NR		NR	NR		4.80	4.7	4.70	4.00	1.30	NR	NR		<1.0	<1.0	2.7	NR	9.00	-	
24-Aug-04	MVSC	7.3	841	27.0		504.0				NR		NR	NR		NR	3.2	NR	-	NR	NR	NR		<1.0	<1.0	10.6	NR	27.00	8000	
21-Sep-04	MVSC	6.9	964	48.0		578.0				23.3			4.7			2.5	5.30	16.40		8.7	97.9		0.6	3.4	19.4	4.8	35.00	>10000	
4-Nov-04	MVSC	6.9	839	42.0		503.0				NR		NR	NR		NR	2.1	NR	NR	NR	NR	NR		0.5	2.9	1.2	NR	15.00	2000	
11-Jan-05	MVSC	NR	NR	NR		NR				NR		NR	NR		NR	NR	NR	NR	NR	NR	NR		NR	NR	NR	NR	NR	2400	
12-Jan-05	MVSC	6.4	313	49.0		187.0				NR		NR	NR		NR	7.0	NR	NR	NR	NR	NR		1.6	2.3	25.8	NR	6.00	NR	
28-Jan-05	MVSC	6.6	953	56.0		571.0				30.9		<0.1	8.0		12.30	8.3	5.10	NR	2.1	6.8	91.3		0.5	<0.01	0.1	3.8	33.00	3000	
28-Sep-05	MVSC	6.9	1010	55.0	12	606.0				47.2			8.1		16.60	1.7	11.90		6.4	9.3	84.8		2.5	1.8	20.1	3.0	156.00	5500	
31-Jan-06	MVSC	6.7	529	41.0		317.0				56.8		<0.1	5.4		6.40	5.8	6.30		1.8	7.4	81.3		1.5	0.7	10.0	2.8	15.00	1500	38748
28-Mar-06	MVSC	7.2	698	18.0		418.0									2.40	6.4	10.90		9.8				0.1	0.5	3.9		21.00	20	38782
26-Apr-06	MVSC	7.3	782	23.0		469.0				-		-	-		-	6.2	-		-	-	-		0.2	0.5	4.0	-	9.00	400	38833
30-May-06	MVSC	7.1	929	52.0	15	557.0				NR			NR		ND	4.3	ND	NR	NR	NR	NR		0.4	0.6	13.4	NR	27.00	1200	38867
21-Jun-06	MVSC	7.1	905	45.0		543.0				3.7		-	1.9		21.30	4.1	8.40		0.2	8.1	75.9		1.0	0.8	4.7	8.0	25.00	12000	38889
13-Dec-06	MVSC	7.1	1086	38.0		651.0				38.4		-	7.2		2.90	1.4	11.60		1.8	9.0	74.2		3.3	2.8	19.3	2.9	48.00	1400	39064
31-Jan-07	MVSC	7.1	1254	47.0		752.0				-		-	-		-	1.4	-		-	-	-		3.2	2.9	20.5	-	69.00		39113
25-Jun-07	MVSC	7.4	1006	57.0		603.0				30.9		-	4.0		29.10	3.6	9.30		5.5	7.0	63.4		2.3	2.2	10.5	2.9	9.00	1700	
31-Jul-07	MVSC	7.5	936	42.0		469.0				NR		NR	NR		NR	4.0	NR	NR			NR		Not Suff	0.5	427.0	NR	89.00	8100	
22-Aug-07	MVSC	7.3	1014	61.0		507.0				NR		NR	NR		NR	2.9	NR	NR		NR	NR		I.S	0.4	96.0	NR	170.00	50000	
24-Sep-07	MVSC	7.2	997	52.0		498.0				NR		NR	NR		56.00	1.5	13.78	29.1		NR	NR	broken in transit		0.5	158.0	NR	120.00	3500	
22-Oct-07	MVSC	7.8	950	48.0		470.0				NR		NR	NR		NR	5.6	NR	NR		NR	NR		0.4	0.5	178.0	NR	160.00	7300	
29-Nov-07	MVSC	7.5	823	50.0		412.0				NR		NR	NR		NR	1.8	NR	NR		NR	NR		<0.1	0.5	190.0	NR	105.00	30000	
10-Dec-07	MVSC	6.6	808	45.0		404.0				23.7		NR	7.4		56.00	3.4	11.60	33.50		23.53	105.4		1.7	0.50	79.0	4.86	93.00	600	
9-Jan-08	MVSC	6.7	811	61.0		405.0				NR		NR	NR		NR	1.1	NR	NR		NR	NR		0.2	0.50	127.0	NR	110.00	5300	
8-Feb-08	MVSC	6.9	722	58.0		360.0				20.4		0.0	6.9		30.00	2.2	10.00	24.98		18.48	88.1		<0.1	0.40	114.0	4.32	95.00	2500	
26-Mar-08	MVSC	5.7	154	55.0		77.3				NR		NR	NR		17.60	4.5	8.10	53.90		NR	NR		0.4	0.50	95.0	NR	100.00	1400	
23-Apr-08	MVSC	6.8	796	40.0		400.0				NR		NR	NR		NR	8.3	NR	NR		NR	NR		<0.1	0.75	234.0		90.00	6000	
29-May-08	MVSC	7.3	942	42.0		486.0				NR		NR	NR		NR	2.2	NR	NR		NR	NR		0.2	0.50	38.7	NR	164.00	5200	
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	PO4	K	Na	SO4	N-IS	IS	Chl.'a'	SAR	BOD5	FC	

MIRIAM VALE SHIRE COUNCIL — Spreedsheet last updated 17/07/2008 — *1/August/2005*

AGNES WATER SEWERAGE SCHEME — **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** — *D401MONK.xls*

H2 WATER TO LAND

SAMPLE		pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	PO4	K	Na	SO4	N-IS	IS	Chl.'a'	SAR	BOD5	FC	
Date	By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml	TOC -m
Frequency - months		1	1	1	NR	1	NR	NR	NR	6	NR	24	6	NR	3	1	3	NR	3	6	6	NR	1	1	1	6	1	1	
LICENCE LIMITS		6.5-8.5		30		SITES - IRRIGATION AREA or L3 or L4 OUTLETS																					20	1000	
SITE - LAGOON 4, NEAR OUTLET						Coordinates								N								E							Elevation
Lagoon 4 is the main stormwater pond; ALTERNATIVE to MP02/1 if Lagoon 4 used for irrigation																													
1-May-02	MVSC	7.6	1090	29.0											0.70		1.20										170.00	200	
6-Jun-02	CMTS	8.8	887	40.0											1.80		5.60										27.00	600	
First discharge of treated effluent into Lagoon 4 from Lagoon 3 - January 2004																													
1-Mar-04	MVSC	8.8	473	50.0		283.8				19.1		<0.1	3.5		0.10	7.2	2.90		6.70	4.70	35.3		<1.0	<1.0	11.3	1.90	15.00	600	
15-Jun-04	MVSC	7.6	406	43.0		244.0				NR		NR	NR		1.40	5.4	4.50	4.60	1.50	NR	NR		<0.1	<0.1	6.2	NR	33.00	1400	
21-Jul-04	MVSC	7.3	457	44.0		274.0				NR		NR	NR		1.40	6.9	4.70	4.00	1.30	NR	NR		<1.0	<1.0	9.1	NR	13.00	-	
21-Sep-04	MVSC	8.2	494	44.0		296.0				13.7		NR	2.8		0.30	6.3	5.00	15.20	4.96	4.80	78.9		0.2	2.3	7.0	5.10	14.00	300	
11-Jan-05	MVSC	NR	NR	NR		NR				NR		NR	NR		NR	NR	NR	NR	NR	NR	NR		NR	NR	NR	NR	NR	ND	
12-Jan-05	MVSC	6.6	929	17.5		557.0				NR		NR	NR		NR	4.1	NR	NR	NR	NR	NR		2.4	0.7	3.3	NR	3.00	2400	
28-Jan-05	MVSC	5.8	432	126.0		259.0				18.2		<0.1	3.9		1.30	7.2	2.40	NR	1.80	3.50	60.6		2.0	1.1	8.1	3.40	27.00	1600	
29-Sep-05	MVSC	8.3	740	25.0	5	444.0				34.7			6.5		3.60	6.9	53.50		1.50	7.80	77.9		2.0	0.5	1.5	3.00	21.00	500	
31-Jan-06	MVSC	9.8	508	52.0		304.0				40.9		<0.1	4.1		1.60	7.7	4.30		0.80	5.00	90.2		1.0	0.5	13.5	3.60	9.00	ND	
28-Mar-06	MVSC	8.2	613	27.0		368.0				-		-	-		7.80	8.7	12.30		8.90	-	-		0.4	0.4	4.4	-	20.00	100	
26-Apr-06	MVSC	9.4	604	44.0		362.0				-		-	-		-	7.4	-		-	-	-		0.5	0.4	10.0	-	12.00	ND	
30-May-06	MVSC	8.0	609	22.0		362.0										7.6							0.5	0.4	5.4		18.00	135	
21-Jun-06	MVSC	7.4	620	20.0		372.0				2.5		-	1.4		6.60	6.8	5.60		0.05	6.10	75.9		0.6	0.5	1.1	9.50	16.00	200	
13-Dec-06	MVSC	10.3	701	91.0		420.0				24.7		-	9.4		1.10	6.3	3.90		1.50	5.70	62.8		0.9	0.8	12.4	2.70	21.00	ND	
31-Jan-07	MVSC	9.6	847	148.0		508.0				-		-	-		-	6.3	-		-	-	-		1.9	1.0	11.9	-	30.00		
25-Jun-07	MVSC	8.8	359	53.0		215.0				29.1		-	6.2		3.10	5.4	4.60		4.00	7.00	79.5		1.0	1.0	1.4	3.50	6.00	200	
31-Jul-07	MVSC	8.1	614	23.0		308.0				NR		NR	NR		NR	8.4	NR	NR		NR	NR		Insuff	0.25	136.0	NR	21.00	100	
22-Aug-07	MVSC	8.1	767	45.0		382.0				NR		NR	NR		NR	7.8		NR		NR	NR		I.S	0.25	190.0	NR	119.00	100	
24-Sep-07	MVSC	9.0	634	62.0		318.0				NR		NR	NR		15.00	8.0	10.96	16.16		NR	NR		<0.1	0.50	172.0	NR	86.00	200	
22-Oc-07	MVSC	9.3	590	18.0		290.0				NR		NR	NR		NR	8.2	NR		NR	NR	NR		1.5	0.25	258.0	NR	60.00	87	
29-Nov-07	MVSC	9.1	612	100.0		305.0				NR		NR	NR		NR	8.2	NR	NR		NR	NR		<0.1	0.40	126.0	NR	96.00	300	
10-Dec-07	MVSC	9.3	507	70.0		255.0				9.39		NR	4.34		15	6.0	4.92	14.2		20.23	93.26		1.8	0.25	603.0	6.35	81.00	100	
9-Jan-07	MVSC	8.2	578	21.0		280.0				NR		NR	NR		NR	7.9	NR	NR		NR	NR		0.2	0.50	106.0	NR	60.00	1500	
8-Feb-08	MVSC	9.1	401	70.0		202.0				12.9		0.0	6.0		4	9.4	6.84	13.62		13.86	66.8		<0.2	0.25	40.3	3.88	47.00	900	
26-Mar-08	MVSC	6.9	676	62.0		336.0				NR		NR	NR		4.5	7.7	5.6	28.91		NR	NR		0.5	0.25	34.0	NR	60.00	200	
23-Apr-08	MVSC	6.9	405	50.0		203.0				NR		NR	NR		NR	0.9	NR	NR		NR	NR		<.1	0.50	100.0	NR	56.00	40000	
29-May-08	MVSC	7.1	433	19.0		217.0				NR		NR	NR		NR	3.1	NR	NR		NR	NR		0.3	NR	137.5	NR	63.00	360	
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	PO4	K	Na	SO4	N-IS	IS	Chl.'a'	SAR	BOD5	FC	

NOTES:

Some data still to add & check

High suspended solids readings are due to algal growth in the lagoons.

MIRIAM VALE SHIRE COUNCIL | * SOIL - USE DPI H&FS RECORDS ON NEX Spreeds 7/04/2008 | 1/August/2005

AGNES WATER SEWERAGE SCHEME | WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK | D401MONK.xls

H3 SOIL *

	pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium (exchangeable)	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Phosphorous (extractable)	Phosphate (as P)	Potassium (available)	Total Sodium	Sulphate	Non-ionic Surfactants	Potassium (extractable)	Total Cations	Sodium Absorption Ratio	Calcium/Magnesium Ratio	Exchangeable Cations
SAMPLE	pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na					SAR		
Date By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l			mg/l
Frequency - months	24	24	NR	NR	NR	NR	NR	NR	24	24	NR	24	NR	24	NR	24	NR	24	24	NR	NR	24	24	24	24	24
SOIL					SITES -																					
SITE -					Coordinates						N							E				Elevation		xx		m AHD
Year 2000																										
Year 2002		* SOIL - USE DPI H&FS RECORDS ON NEXT SHEET																COMPLETE & ADD THIS SHEET LATER								
Year 2004																										
	pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	0.0
SITE -					Coordinates						N							E				Elevation		xx		m AHD
Year 2000																										
Year 2002																										
Year 2004																										
	pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	0.0
31-Jan-06 MVSC	5.5	240			144	5			28.7	55		3.4		3		0.1		1.1	36.9	4				1.7		
Year 2000																										
Year 2002																										
Year 2004																										
	pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	0.0
SITE -					Coordinates						N							E				Elevation		xx		m AHD
Year 2000																										
Year 2002																										
Year 2004																										
	pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	0.0
30-Jan-06 MVSC	5.2	147	73.0		88.0	8.0	0.08	<0.1	31.4	29.0		5.7	<0.01	3.70	6.9	0.80		1.60	21.3					0.90		>1000
	5.1		2.0	23										0.50	5.6		0000001						3		120
	7.1		4.0	30										1.00	7.9		0000000						1		ND
	9.3		13.0	23										ND	6.6		ND						1		400
	7.4		5.0	25										ND	4.3		ND						3		56
	5.4		1.0	23										1.00	7.1		0000000						2		100
	5.7		12.0	22										0.60	5.9		0000000						0		ND

MIRIAM VALE SHIRE COUNCIL | * SOIL - USE DPI H&FS RECORDS ON NEX Spreeds 7/04/2008 | 1/August/2005

AGNES WATER SEWERAGE SCHEME | WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK | D401MONK.xls

H3 SOIL *

	pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium (exchangeable)	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Phosphorous (extractable)	Phosphate (as P)	Potassium (available)	Total Sodium	Sulphate	Non-ionic Surfactants	Potassium (extractable)	Total Cations	Sodium Absorption Ratio	Calcium/Magnesium Ratio	Exchangeable Cations
SAMPLE	pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na					SAR		
Date By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l			mg/l
Frequency - months	24	24	NR	NR	NR	NR	NR	NR	24	24	NR	24	NR	24	NR	24	NR	24	24	NR	NR	24	24	24	24	24
SOIL					**SITES -**																					
	5.6		5.0	12										ND	7.2		ND						2			ND
	5.8		15	58										<0.1	3.6	0.5							6.1			34

Year 2000
Year 2002
Year 2004

	pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	0.0
SITE -					Coordinates						N							E					Elevation	xx		m AHD

Year 2000
Year 2002
Year 2004

	pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	39545.0	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	0.0
30-Jan-06 MVSC	5.2	209	70.0		125	14	0.0	<0.1	31.4	45		3.7	<0.01	1.5	7.4	0.5		1.3	36.9					1.7		800

MVSC **AGNES WATER SEWAGE EFFLUENT REUSE PROJECT - Lot 21 Parish of Uxbridge** **DPI H&FS**

19/Oct/2001

Initial soil sample before sewage effluent irrigation *D401MONK.xls*
Collected 19th Oct 2001 sampled plots 1,7& 9. *Soil samples collected from soil test pits *1/August/2005*
Laboratory soil analysis for Experiment 417 Hardwoods

Sample*	pH	Conductivity		Organic	Exchangeable Cations (cmol/kg)					ESP
Depth (cm)	units	dS/m	µS/cm	Carbon %	Ca	Mg	K	Na	CEC	%
0-10	5.2	0.035	35	1.38	0.036	0.202	0.055	0.118	5.088	2.33
10-20	5.34	0.031	31	0.93	0.015	0.194	0.037	0.178	3.424	5.20
20-40	5.65	0.044	44	0.57	0.013	0.352	0.041	0.344	3.452	9.96
40-60	5.76	0.134	134	0.50	0.012	1.432	0.070	0.635	7.589	8.37
60-80	5.25	0.217	217	0.16	0.013	3.099	0.101	1.300	13.491	9.64

Sample*	Al	B	Mn	K tot	Pav	Ntot	Particle size analysis			
Depth (cm)	cmol/kg			mg/kg		%	Clay %	Csand %	Fsand %	Silt %
0-10	0.240	0.310	0.0006	265.18	1.669	0.051	3	11.76	51.24	34
10-20	0.173	0.178	<0.0005	284.39	1.169	0.035	5	18.12	46.88	30
20-40	0.107	0.155	<0.0005	380.78	0.911	0.023	7	25.68	40.32	27
40-60	0.027	0.292	<0.0005	723.06	0.608	0.024	23	15.92	34.08	27
60-80	0.022	0.521	<0.0005	1420.92	1.063	0.015	43	10.20	25.80	21

31/01/2006	MVSC	5.5	240			144	5			28.7 #

Soil samples collected 4th April 2003 **Soils collected using hand auger

Sample**	pH	Conductivity		Organic	Exchangeable Cations (cmol/kg)					ESP
Depth (cm)	units	dS/m	µS/cm	Carbon %	Ca	Mg	K	Na	CEC	%
Irrigated										
0-10	6.12	0.067	67	1.120	0.074	0.161	0.073	0.573	4.262	13.44
10-20	5.84	0.039	39	0.547	0.026	0.134	0.033	0.278	2.590	10.7
20-40	6.25	0.060	60	0.246	0.014	0.287	0.024	0.379	1.795	37.9
40-60	7.25	0.163	163	0.205	<0.012	2.652	0.098	2.001	9.329	21.4
Control, non-irrigated										
0-10	5.28	0.051	51	1.824	0.196	0.364	0.079	0.250	5.939	4.2
10-20	5.57	0.049	49	1.084	0.034	0.401	0.039	0.307	4.017	7.6
20-40	5.29	0.073	73	0.596	0.015	0.919	0.043	0.610	4.316	14.1
40-60	6.24	0.152	152	0.324	0.018	1.440	0.042	1.304	4.735	27.5
30/01/2006	MVSC	5.2	147	73		88	8	0.08	<0.1	31.4 #

Sample**	Al	B	Mn	K tot	Ptot	Ntot	Cu	Zn		
		5.1		2	23					
		7.1		4	30					
		5.3		13	23					
		5.4		12	23					
		5.7		12	22					
		5.8		15	58					

Depth (cm)	cmol/kg			mg/kg		%	mg/kg	mg/kg		
Irrigated										
0-10	0.082	0.30	0.001	320	21.69	0.041	<0.4	<0.4		**H3**
10-20	0.092	0.22	<0.001	301	13.65	0.024	<0.4	<0.4		
20-40	0.022	0.23	<0.001	291	10.60	0.017	<0.4	<0.4		**SOIL**

40-60	<0.004	0.28	<0.001	1124	24.13	0.018	0.4	<0.4
Control, non-irrigated								
0-10	0.136	1.00	0.01	468	40.51	0.072	0.55	<0.4
10-20	0.141	0.34	0.003	432	24.98	0.044	0.49	<0.4
20-40	0.048	0.26	0.003	594	22.34	0.035	0.51	<0.4
40-60	0.013	0.15	0.005	674	17.32	0.018	0.43	<0.4

2/Mar/2004 Agnes Water sewage effluent reuse project. Lot 21 Parish of Uxbridge

30/01/2006 MVSC 5.2 209 70 125 14 0.04 <0.1 31.4 #

Sample**	pH	Conductivity		Organic	Exchangeable Cations (cmol/kg)					ESP
Depth (cm)	units	dS/m	µS/cm	Carbon %	Ca	Mg	K	Na	CEC	%
Irrigated										
0-10	6.48	0.087	87	1.153	0.181	0.278	0.105	0.807	4.273	18.8
10-20	6.13	0.065	65	0.530	0.035	0.117	0.049	0.491	2.463	19.9
20-40	6.22	0.060	60	0.332	0.023	0.201	0.034	0.455	1.987	22.9
40-60	7.01	0.127	127	0.179	0.013	1.966	0.071	1.604	6.241	25.7
Control, non-irrigated										
0-10	5.50	0.070	70	1.469	0.222	0.385	0.075	0.393	5.572	7.0
10-20	5.83	0.076	76	0.717	0.032	0.524	0.030	0.538	3.876	13.9
20-40	6.32	0.109	109	0.544	0.033	1.228	0.041	1.065	5.122	20.8
40-60	7.24	0.200	200	0.187	0.018	1.633	0.044	1.919	5.144	37.3

Sample**	Al	B	Mn	K tot	Ptot	Ntot	Cu	Zn
30/01/2006 MVSC		5.2	209	2		125	11	0.01 <0.1 34.0
Irrigated								
0-10	0.015	0.80	0.002	326	35.99	0.046	<0.4	0.98
10-20	0.064	0.71	<0.001	271	16.94	0.024	<0.4	0.89
20-40	0.043	0.58	<0.001	239	13.26	0.018	<0.4	1.01
40-60	<0.004	0.62	<0.001	899	18.69	0.018	<0.4	2.38
31/01/2006	MVSC	5.1		2	22			
28/03/2006	MVSC	6.1		1	24			
26/04/2006	MVSC	6.2		10	32			
30/05/2006	MVSC	6.1		2	15			
21/06/2006	MVSC	5.2		5	32			
13/12/2006	MVSC	DRY		DRY	DRY			
31/01/2007	MVSC	DRY		DRY	DRY			
13/03/2007	MVSC	5.8		13	50			

H3

SOIL

Control, non-irrigated								
0-10	0.084	0.62	0.014	412	33.21	0.063	<0.4	0.83
10-20	0.077	0.41	0.002	385	20.21	0.033	<0.4	0.42
20-40	0.012	0.37	0.004	603	21.02	0.034	<0.4	1.21
40-60	<0.004	0.13	0.003	691	16.73	0.015	<0.4	0.43

MIRIAM VALE SHIRE COUNCIL — Spreeds 7/04/2008 — *1/August/2005*

AGNES WATER SEWERAGE SCHEME — **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** — *D401MONK.xls*

H4 STORMWATER

SAMPLE		pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na					SAR		FC	
Date	By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml	TOC - m
Frequency - months		6	6	6	NR	6	6	6	6	6	6	NR	6	6	6	6	6	NR	6	6	NR	NR	NR	NR	6	NR	6	
STORMWATER						**SITES - 97/1, 97/2, 97/3, 97/4, 97/5, M2 (97/6), 97/9, 00/9**																							
SITE - MP97/1		**Lot 21 near DNP(RH)**			Coordinates							0388400						7314998			Elevation			xx m AHD				
23-Oct-00		dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
26-Oct-00	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
29-Nov-00	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
22-Mar-01	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
1-May-02	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
6-Jun-02	CMTS	5.7	187	53		112.2	-	17.20	<0.01	8.6	57.0		4.0	<10	<0.1	7.1	0.20		1.30	19.1					1.30		400	
Feb-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
Jul-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
4-Dec-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
19-Jul-04	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
28-Jan-05	MVSC	5.2	194	1		116.0	4.0	0.05	<0.1	13.4	41.0		2.8	<0.01	1.5	6.9	<0.1		1.2	34.0					2.20		220	
31-Jan-06	MVSC	7.9	258	5		155.0	7.0	0.01	<0.1	31.4	65.0		8.0	<0.01	2.3	6.7	0.5		1.3	59.1					2.40		72	
10-Sep-07	MVSC	5.7	376	5		188.0	6.0	7.55	<0.006	4.6	95.8		9.6	<0.0001	1.4	9.7	1.5		3.1	54.8					3.37		100	
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	FC	
SITE - MP97/2		**Lot 21 D/S Irrigation Area W**										0388715						7313802			Elevation			xx m AHD				
23-Oct-00		dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
29-Nov-00	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
1-May-02	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
6-Jun-02	CMTS	5.4	90	16		54.0	-	2.80	<0.01	7.5	16.0		2.3	<10	<0.1	5.5	0.10		0.30	7.6					0.60		200	
Feb-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
Jul-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
4-Dec-03	MVSC	5.9	59	5		35.0	-	0.04	<0.1	16.5	12.9		4.2	<0.01	<0.1	5.4	5.40		1.20	6.1					0.30		1200	
19-Jul-04	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
28-Jan-05	MVSC	5.2	100	18		60.0	6.0	0.10	<0.1	24.6	24.0		5.4	<0.01	3.4	6.5	<0.1		1.2	22.0					1.00		248.0	
30-Jan-06	MVSC	5.2	147	73		88.0	8.0	0.1	<0.1	31.4	29.0		5.7	<0.01	3.7	6.9	0.8		1.6	21.3					0.90		>1000	dry
10-Sep-07	MVSC	5.5	114	368		57.1	10.0	243.7	<0.006	3.6	30.3		10.3	<0.0001	11.1	9.1	3.0		6.3	28.1					1.72		3600.0	
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	FC	

MIRIAM VALE SHIRE COUNCIL — Spreeds 7/04/2008 — *1/August/2005*

AGNES WATER SEWERAGE SCHEME — **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** — *D401MONK.xls*

H4 STORMWATER

		pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform	Depth
SAMPLE		pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na					SAR		FC	
Date	By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml	TOC - m
Frequency - months		6	6	6	NR	6	6	6	6	6	6	NR	6	6	6	6	6	NR	6	6	NR	NR	NR	NR	6	NR	6	
STORMWATER						**SITES - 97/1, 97/2, 97/3, 97/4, 97/5, M2 (97/6), 97/9, 00/9**																						
SITE - MP97/3		**Lot 21 D/S Irrigation Area W**										0389048						7313746			Elevation			xx m AHD				
23-Oct-00		dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
29-Nov-00	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
22-Mar-01	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
1-May-02	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
6-Jun-02	CMTS	5.6	50	31		30.0	-	1.30	<0.01	7.5	17.0		2.1	<10	<0.1	7.4	0.10		1.40	3.9					0.30		500	
Feb-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
Jul-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
4-Dec-03	MVSC	5.7	91	22		55.0	-	0.06	<0.1	19.2	12.9		1.3	<0.01	0.05	5.5	0.60		1.40	10.2					0.60		120	
19-Jul-04	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
28-Jan-05	MVSC	5.3	169	20		101.0	8.0	0.08	<0.1	16.6	34.0		2.4	<0.01	1.6	6.8	<0.1		1.3	27.4					1.70		300	
30-Jan-06	MVSC	5.2	209	70		125.0	14.0	0	<0.1	31.4	45.0		3.7	<0.01	1.50	7.4	0.50		1.30	36.9					1.70		800	
10-Sep-07	MVSC	6.3	166	142		83.3	30.0	38.91	0.006	4.5	33.9		4.2	<0.0001	3.4	9.7	1.4		4.5	36.3					2.98		3300	
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	FC	
SITE - MP97/4		**Lot 21 on N/S Road**										0389175						7313303			Elevation			xx m AHD				
													39545.0															
23-Oct-00		dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
29-Nov-00	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
22-Mar-01	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
1-May-02	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
6-Jun-02	CMTS	5.3	100	12		60.0	-	1.50	<0.01	11.7	22.0		7.1	<10	<0.1	6.4	<0.1		1.40	5.9					0.30		200	
Feb-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
Jul-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
4-Dec-03	MVSC	5.0	390	16		234.0	-	0.19	<0.1	30.4	88.1		25.3	<0.01	<0.1	4.6	0.60		2.00	76.4					2.50		ND	
19-Jul-04	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
28-Jan-05	MVSC	5.1	156	7		94.0	3.0	0.09	<0.1	18.2	33.0		3.4	<0.01	2.7	6.9	<0.1		1.2	34.0					1.9		180.0	
30-Jan-06	MVSC	5.2	209	2		125.0	11.0	0.0	<0.1	34.6	43.0		3.3	<0.01	1.3	6.0	0.4		1.3	34.7					1.50		300.0	
10-Sep-07	MVSC	5.5	108	11		53.9	13.3	3.5	<0.006	2.9	25.5		1.6	<0.0001	1.4	9.6	0.9		2.0	20.4					2.40		570.0	
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	FC	

MIRIAM VALE SHIRE COUNCIL Spreeds 7/04/2008 *1/August/2005*

AGNES WATER SEWERAGE SCHEME **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** *D401MONK.xls*

H4 STORMWATER

		pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform	Depth
SAMPLE		pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na					SAR		FC	
Date	By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml	TOC - m
Frequency - months		6	6	6	NR	6	6	6	6	6	6	NR	6	6	6	6	6	NR	6	6	NR	NR	NR	NR	6	NR	6	
STORMWATER						**SITES - 97/1, 97/2, 97/3, 97/4, 97/5, M2 (97/6), 97/9, 00/9**																						
SITE - MP97/5		**Lot 21, to Water Reserve**										######						######			Elevation			xx ɴ AHD				
23-Oct-00		dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
29-Nov-00	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
22-Mar-01	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
1-May-02	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
6-Jun-02	CMTS	5.4	124	12		74.4	-	1.40	<0.01	8.6	33.0		2.8	<10	<0.1	7.0	<0.1		1.30	14.9					1.10		800	
Feb-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
Jul-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
4-Dec-03	MVSC	5.5	112	2		67.0	-	0.05	<0.1	27.6	24.8		26.5	<0.01	<0.1	7.5	<0.01		1.40	10.5					0.30		2500	
19-Jul-04	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
28-Jan-05	MVSC	5.3	172	10		103.0	5.0	0.04	<0.1	15.0	35.0		3.3	<0.01	0.08	6.5	<0.1		1.4	32.7					2.00		228.0	
30-Jan-06	MVSC	5.2	291	5		175.0	10.0	0.01	<0.1	34.6	69.0		4.1	<0.01	1.30	7.7	0.40		1.1	41.3					1.80		500.0	
10-Sep-07	MVSC	5.6	95	16		47.2	6.7	3.40	<0.006	2.4	24.2		1.9	<0.0001	0.80	9.9	0.67		1.9	19.4					2.31		430.0	
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	FC	

MIRIAM VALE SHIRE COUNCIL — Spreeds 7/04/2008 — *1/August/2005*

AGNES WATER SEWERAGE SCHEME — **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** — *D401MONK.xls*

H4 STORMWATER

		pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform	Depth
SAMPLE		pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na					SAR		FC	
Date	By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml	TOC - m
Frequency - months		6	6	6	NR	6	6	6	6	6	6	NR	6	6	6	6	6	NR	6	6	NR	NR	NR	NR	6	NR	6	
STORMWATER		**SITES - 97/1, 97/2, 97/3, 97/4, 97/5, M2 (97/6), 97/9, 00/9**																										
SITE - M2		**Lot 21 Outlet to DNP nr. 97/6**										0389927						7311632			Elevation		xx m AHD					
		EPA - H1 (Deepwater) & H4 (Stormwater); repeat from H1																24° 18' 16"										
26-Oct-00	EMS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
18-Dec-00	EMS	6.2	215	11	25	-	19.0	0.03	-	-	-	-	-	-	0.10	6.2	0.70		-	-	-	-	-	-	-		-	
18-Jan-01	EMS	5.9	323	19	25	-	7.0	0.10	-	-	-	-	-	-	0.45	7.5	<0.1		-	-	-	-	-	-	-		59	
20-Feb-01	EMS	5.2	174	10	60	-	2.0	0.05	-	-	-	-	-	-	0.32	5.5	0.31		-	-	-	-	-	-	-		-	
22-Mar-01	EMS	5.6	128	12	35	-	-	-	-	-	-	-	-	-	2.30	8.2	0.40		-	-	-	-	-	-	-		-	
22-May-01	EMS	4.5	232	2	15	-	0.0	0.10	-	-	-	-	-	-	<0.1	7.1	0.60		-	-	-	-	-	-	-		ND	
1-Jun-01	EMS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
18-Sep-01	EMS	5.5	214	4	10	-	9.0	0.01	-	-	-	-	-	-	0.40	4.6	0.20		-	-	-	-	-	-	-		70	
1-May-02	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
6-Jun-02	CMTS	5.5	139	25		83.4	-	1.80	<0.01	9.1	32.0		4.8	<10	<0.1	6.1	<0.1		0.90	25.8					1.70		300	
Feb-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
Jul-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
4-Dec-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
16-Mar-04	MVSC	5.2	-	5	1	-	-	-	-	-	-	-	-	-	0.50	5.0	<0.1		-	-	-	-	-	-	-	-	-	
19-Jul-04	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
28-Jan-05	MVSC	5.2	139	12		83.0	3.0	0.07	<0.1	19.8	27.0		5.4	<0.01	4.8	6.3	<0.1		1.0	20.7					1.10		240.0	
30-Jan-06	MVSC	4.9	183	1		110.0	5	0.01	<0.1	31.4	42.0		4.0	<0.01	1.20	7.7	0.40		0.60	30.2					1.30		80	
10-Sep-07	MVSC	5.5	93	7		46.5	8.3	5.20	0.007	2.6	24.2		1.9	<0.0001	6.00	9.9	1.13		2.11	18.4					2.13		550	
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	FC	

MIRIAM VALE SHIRE COUNCIL — Spreeds 7/04/2008 — *1/August/2005*

AGNES WATER SEWERAGE SCHEME — **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** — *D401MONK.xls*

H4 STORMWATER

Date	By	pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform	Depth
SAMPLE		pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na					SAR		FC	
Date	By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml	TOC - m
Frequency - months		6	6	6	NR	6	6	6	6	6	6	NR	6	6	6	6	6	NR	6	6	NR	NR	NR	NR	6	NR	6	
STORMWATER						**SITES - 97/1, 97/2, 97/3, 97/4, 97/5, M2 (97/6), 97/9, 00/9**																						
SITE - MP97/9		**Creek u/s of lagoons**																			Elevation		xx m AHD					
6-Jun-02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Feb-03		dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
Jul-03		dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
Dec-03		dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
19-Jul-04	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
28-Jan-05	MVSC																											
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	FC	
SITE - MP00/9		**D/S of Lagoon 4**										0387819						7314483			Elevation		xx m AHD					
29-Nov-00	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
22-Mar-01	CMTS	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
6-Jun-02	CMTS	5.6	183	18		109.8	-	0.60	<0.01	7.5	61.0		2.7	<10	<0.1	6.2	<0.1		0.90	23.5					1.90		3000	
17-Feb-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
Jul-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
Dec-03	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
19-Jul-04	MVSC	dry	dry	dry		dry	dry	dry	dry	dry	dry		dry	dry	dry	dry	dry		dry	dry					dry		dry	
9-Nov-04		No overflow from Lagoon 4 has occurred to date																										
28-Jan-05	MVSC																											
30-Jan-06	MVSC	5.2	173	39		104.0	9.0	0.01	<0.1	28.7	40.0		3.0	<0.01	2.50	7.7	0.40		1.3	61.3					2.90		360	
10-Sep-07	MVSC	5.7	114	21		57.0	8.3	9.09	0.012	2.1	30.3		2.8	<0.0001	1.80	9.9	1.63		3.37	21.3					2.28		60	
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Hg	N	DO	P	PO4	K	Na	0.0	0.0	0.0	0.0	SAR	0.0	FC	

NOTES: Some data still to add & check

MIRIAM VALE SHIRE COUNCIL — Spreeds 7/04/2008 — *1/August/2005*

AGNES WATER SEWERAGE SCHEME — **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** — *D401MONK.xls*

H5 GROUNDWATER

	pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform
SAMPLE	pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4				SAR		FC *
Date By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml
Frequency - months	6	6	NR	NR	6	6	NR	NR	6	6	NR	6	NR	6	NR	6	NR	6	6	6	NR	NR	NR	6	NR	NR

GROUNDWATER — **SITES - 97/1, 97/2, 97/3, 97/4, 97/5, 97/6(M2), 97/9, 00/9**

SITE - MP97/1 — **Lot 21 near DNP(RH)** — 0388400 — 7314998 — Elevation — m AHD

		pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4				SAR		
23-Oct-00		dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
26-Oct-00	CMTS	5.8	695			417.0	17.0			9.4	204.9		8.7		<1		<1		1.80	57.5	18.0				3.20		
29-Nov-00	CMTS	5.3	417	250		-	4.0			0.6	54.9		3.4		0.40		<0.1		1.25	16.1	11.0				1.80		
22-Mar-01	CMTS	5.2	205	1895		123.0	12.0	61.90	0.011	6.7	58.4		6.4	<1	<0.1		<0.1		1.30	16.5	32.0				1.10		
1-May-02	CMTS	5.2	260			156.0	3.0			6.4	63.0		2.5		0.10		0.30		0.52	-	4.0				1.80		
6-Jun-02	CMTS	5.3	170			102.0	2.0			9.6	45.0		7.3		0.30		0.10		1.50	13.1	45.0				0.80		
17-Feb-03	MVSC	4.8	233			139.8	7.0			8.4	69.9		4.5		0.30		0.70		2.66	58.1	110.0				4.00		70
Jul-03	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
4-Dec-03	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
21-Jul-04	MVSC	5.3	263			157.0	5.0			2.3	79.0		3.0		1.40		<0.1		1.30	42.2	7.0				4.20		10
28-Jan-05	MVSC	5.1	249			149.0	4.0			19.8	54.0		4.7		<0.1		0.20		3.50	38.0	18.0				2.00		
30-Aug-05	MVSC	5.3	334			200.0	7.0			20.1	67.0		5.9		<0.1		0.10		0.40	24.1	7.0				1.20		
31-Jan-06	MVSC	5	240			144	5			28.7	55		3.4		3		0.1		1.1	36.9	4				1.7		
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4	0.0	0.0	0.0	SAR		

SITE - MP97/2 — **Lot 21 D/S Irrigation Area W** — 0388715 — 7313802 — Elevation — m AHD

		pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4				SAR		
23-Oct-00		dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
29-Nov-00	CMTS	6.0	264	158		-	22.0			0.7	50.9		3.2		0.50		<0.1		0.80	18.5	18.0				2.10		
1-May-02	CMTS	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
6-Jun-02	CMTS	5.8	531			318.6	25.0			9.6	123.0		8.0		0.10		0.10		1.40	40.5	35.0				2.30		
Feb-03	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
Jul-03	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
4-Dec-03	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
21-Jul-04	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
28-Jan-05	MVSC	5.5	296			177.0	34.0			21.4	87.0		6.8		0.5		<0.1		1.0	48.7	23.0				2.30		
30-Aug-05	MVSC	dry	dry	dry		dry	dry			dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry				dry		
30-Jan-06	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4	0.0	0.0	0.0	SAR		

MIRIAM VALE SHIRE COUNCIL — Spreeds 7/04/2008 — *1/August/2005*

AGNES WATER SEWERAGE SCHEME — **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** — *D401MONK.xls*

H5 GROUNDWATER

SAMPLE		pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4				SAR		FC *
Date	By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml
Frequency - months		6	6	NR	NR	6	6	NR	NR	6	6	NR	6	NR	6	NR	6	NR	6	6	6	NR	NR	NR	6	NR	NR
GROUNDWATER		**SITES - 97/1, 97/2, 97/3, 97/4, 97/5, 97/6(M2), 97/9, 00/9**																									
SITE - MP97/3		**Lot 21 D/S Irrigation Area W**										0389048						7313746						Elevation			m AHD
23-Oct-00		dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
29-Nov-00	CMTS	6.8	1349	809		-	244.0			9.2	241.8		26.0		<0.1		<0.1		1.60	111.8	24.0				4.30		
22-Mar-01	CMTS	6.4	664	332		398.0	101.0	15.20	0.018	12.5	150.5		48.3	<1	<0.1		<0.1		1.10	58.4	16.0				1.70		
1-May-02	CMTS	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
6-Jun-02	CMTS	6.4	808			484.8	85.0			14.9	165.0		10.5		0.10		<0.1		1.40	112.0	30.0				5.40		
Feb-03	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
Jul-03	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
4-Dec-03	MVSC	6.2	529			317.0	34.0			22.0	101.9		12.1		<0.1		4.40		1.00	102.8	41.0				4.40		200
21-Jul-04	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
28-Jan-05	MVSC	5.8	343			205.0	68.0			24.6	44.0		8.3		0.8		<0.1		0.8	70.0	11.0				3.10		
30-Aug-05	MVSC	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry ry
30-Jan-06	MVSC	5.6	451			270.0	108.0			40.9	80.0		6.8		1.20		0.10		1.10	68.0	1.0				2.60		
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4	0.0	0.0	0.0	SAR		
SITE - MP97/4		**Lot 21 on N/S Road**										0389175	39545.0					7313303						Elevation			m AHD
23-Oct-00		dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
29-Nov-00	CMTS	6.4	387	232		-	66.0			6.2	66.9		3.7		0.30		<0.1		1.10	18.8	10.0				1.50		
22-Mar-01	CMTS	6.0	264	65		148.0	47.0	9.20	0.017	18.1	51.5		53.3	<1	<0.1		<0.1		1.00	19.5	7.0				0.50		
1-May-02	CMTS	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
6-Jun-02	CMTS	6.1	409			245.4	25.0			17.0	87.0		6.7		0.10		<0.1		1.00	40.8	25.0				2.10		
Feb-03	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
Jul-03	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
4-Dec-03	MVSC	6.0	382			229.0	18.0			19.2	79.2		17.5		<0.1		0.60		0.90	71.5	28.0				2.80		140
21-Jul-04	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
28-Jan-05	MVSC	5.7	505			303.0	74.0			38.9	62.0		7.6		0.5		<0.1		0.8	58.0	12.0				2.2		
30-Aug-05	MVSC	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry ry
30-Jan-06	MVSC	5.4	428			256.0	80.0			44.1	69.0		5.6		1.5		0.1		0.8	76.9	1.0				2.90		

MIRIAM VALE SHIRE COUNCIL					Spreeds 7/04/2008																					1/August/2005
AGNES WATER SEWERAGE SCHEME					WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK																					D401MONK.xls
H5	**GROUNDWATER**	pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform
SAMPLE		pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4				SAR		FC *
Date	By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml
Frequency - months		6	6	NR	NR	6	6	NR	NR	6	6	NR	6	NR	6	NR	6	NR	6	6	6	NR	NR	NR	6	NR	NR
GROUNDWATER		**SITES - 97/1, 97/2, 97/3, 97/4, 97/5, 97/6(M2), 97/9, 00/9**																								
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4	0.0	0.0	0.0	SAR		

MIRIAM VALE SHIRE COUNCIL — Spreeds 7/04/2008 — *1/August/2005*

AGNES WATER SEWERAGE SCHEME — **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** — *D401MONK.xls*

H5 GROUNDWATER

SAMPLE		pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4				SAR		FC *
Date	By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml
Frequency - months		6	6	NR	NR	6	6	NR	NR	6	6	NR	6	NR	6	NR	6	NR	6	6	6	NR	NR	NR	6	NR	NR
GROUNDWATER		**SITES - 97/1, 97/2, 97/3, 97/4, 97/5, 97/6(M2), 97/9, 00/9**																									
SITE - MP97/5		**Lot 21, to Water Reserve**										######						######						Elevation			m AHD
23-Oct-00		dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
29-Nov-00	CMTS	7.1	735	441		-	154.0			8.1	121.9		17.0		0.50		<0.1		1.40	33.2	12.0				1.50		
22-Mar-01	CMTS	6.5	338	461		203.0	82.0	41.60	0.007	13.1	58.4		21.7	<1	2.10		<0.1		1.10	44.9	12.0				1.80		
1-May-02	CMTS	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
6-Jun-02	CMTS	6.5	662			397.2	82.0			16.0	143.0		11.6		0.20		<0.1		1.10	55.0	20.0				2.60		
17-Feb-03	MVSC	4.9	238			142.8	6.0			9.4	59.9		5.0		0.40		0.30		*2.22*	37.8	30.0				2.50		ND
Jul-03	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
4-Dec-03	MVSC	6.8	292			175.0	39.0			24.8	46.0		27.9		<0.1		1.10		0.90	59.9	30.0				2.00		50
21-Jul-04	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
28-Jan-05	MVSC	5.7	203			122.0	23.0			19.8	36.0		4.2		1.6		<0.1		0.7	36.7	11.0				2.00		
30-Aug-05	MVSC	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry ry
30-Jan-06	MVSC	5.6	682			409.0	110.0			37.8	138.0		34.3		0.8		0.10		1.3	81.3	1.0				2.30		
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4	0.0	0.0	0.0	SAR		
SITE - MP97/6		**Lot 21 Outlet to DNP nr. M2**										0389927						7311642						Elevation			m AHD
23-Oct-00		dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
29-Nov-00	CMTS	6.3	405	243		-	70.0			4.4	73.9		13.8		<0.1		<0.1		0.90	19.6	8.0				1.10		
22-Mar-01	CMTS	6.5	354	570		212.0	39.0	2.00	0.014	56.3	67.3		30.0	<1	1.20		<0.1		1.10	24.6	8.0				0.30		
1-May-02	CMTS	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
6-Jun-02	CMTS	5.7	319			191.4	18.0			13.8	67.0		11.1		0.30		<0.1		1.00	56.3	15.0				2.70		
17-Feb-03	MVSC	5.4	326			195.6	5.6			14.3	55.5		51.0		0.20		0.50		*2.52*	50.9	50.0				1.40		
Jul-03	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
4-Dec-03	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
21-Jul-04	MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
28-Jan-05	MVSC	5.2	124			74.0	3.0			16.6	27.0		6.8		<0.1		<0.1		1.0	27.3	10.0				1.40		
30-Aug-05	MVSC	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry ry
31-Jan-06	MVSC	5.4	362.0			217.0	60.0			35.0	67.0		7.2		2.0		0.1		1.6	41.3	1.0				1.7		
		pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4	0.0	0.0	0.0	SAR		

MIRIAM VALE SHIRE COUNCIL — Spreeds 7/04/2008 — *1/August/2005*

AGNES WATER SEWERAGE SCHEME — **WATER QUALITY MONITORING - LOTS 20, 21 & DEEPWATER NATIONAL PARK** — *D401MONK.xls*

H5 GROUNDWATER

	pH	Electrical Conductivity	Suspended Solids	Turbidity	Total Dissolved Salts (calc.)	Total Alkalinity (as $CaCO_3$)	Total Aluminium	Total Arsenic	Total Calcium	Total Chloride	Copper	Total Magnesium	Total Mercury	Total Nitrogen (as N)	Dissolved Oxygen	Total Phosphorous (as P)	Phosphate (as P)	Total Potassium	Total Sodium	Sulphate	Non-ionic Surfactants	Ionic Surfactants	Chlorophyll 'a'	Sodium Absorption Ratio	BOD5	Faecal Coliform
SAMPLE	pH	EC	SS		TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4				SAR		FC *
Date By		µS/cm	mg/l	FTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l		mg/l	cfu/ 100 ml
Frequency - months	6	6	NR	NR	6	6	NR	NR	6	6	NR	6	NR	6	NR	6	NR	6	6	6	NR	NR	NR	6	NR	NR
GROUNDWATER	**SITES - 97/1, 97/2, 97/3, 97/4, 97/5, 97/6(M2), 97/9, 00/9**																									
SITE - MP97/9	**Creek u/s of lagoons**																						Elevation			m AHD
Jun-02 CMTS	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
30-Jan-06 MVSC	4.9	183	1		110.0	5.0	0.01	<0.1	31.4	42.0		4.0	<0.01	1.20	7.7	0.40		0.6	30.2					1.30		80.0
Jul-03 MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
4-Dec-03 MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
21-Jul-04 MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
28-Jan-05 MVSC																										
	pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4	0.0	0.0	0.0	SAR		
SITE - MP00/9	**D/S of Lagoon 4**										0387819						7314483						Elevation			m AHD
29-Nov-00 CMTS	7.0	1469	881		-	14.0			10.4	539.0		28.0		<0.1		<0.1		3.30	125.7	31.0				4.60		
22-Mar-01 CMTS	6.2	762	8868		457.0	37.0	2.50	0.022	10.9	227.8		30.0	<1	<0.1		<0.1		1.50	65.1	12.0				2.30		
6-Jun-02 CMTS	6.0	457			274.2	10.0			11.7	116.0		7.8		0.20		0.10		2.40	37.5	85.0				2.10		
17-Feb-03 MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
Jul-03 MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
4-Dec-03 MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
21-Jul-04 MVSC	dry	dry			dry	dry			dry	dry		dry		dry		dry		dry	dry	dry				dry		
12-Nov-04	No overflow from Lagoon 4 has occurred to date																									
28-Jan-05 MVSC																										
	pH	EC	SS	0.0	TDS	Alk	Al	As	Ca	Cl	Cu	Mg	Mu	N	DO	P	PO4	K	Na	SO4	0.0	0.0	0.0	SAR		

NOTES: Some data still to add & check