

Adelaide Desalination Project (ADP) – DBOM

Quarterly Salinity Monitoring Report

For April May June 2018

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Rev	Date	Approved AdelaideAqua

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1. Volumes of seawater received, and outfall discharged

Table 1 below shows summary of seawater received and outfall discharged volumes for this reporting period.

Daily volumes of seawater intake and outfall discharge for this reporting period are shown in Appendix

Table 1 - Intake and Discharge Volume Summary

Date	Seawater Received (ML)		Outfall (ML)
	SP1	SP2	Total
April	949.89	200.95	670.57
May	1063.74	338.06	814.20
June	370.98	2.38	229.69
Quarterly Total	2384.62	541.40	1714.47

2. Water Quality

2.1 Seawater Characteristics Results

Table 1 above shows summary of seawater Characteristics for this reporting period.

10 minutes intake data for this reporting period are shown in Appendix.

Table 2 - Seawater Characteristics Summary

Parameter	Conductivity	Temperature	pH	DO
	Us/cm	°C	-	mg/L
Average	57675.36	18.25	7.86	8.39
Minimum	64484.95	14.20	6.05	7.00
Maximum	60349.20	20.95	8.35	9.90

Parameter	Biochemical Oxygen Demand	Suspended solids	Nitrogen (Total)	Phosphorus (Total)	Zinc (Total)	Lead (Total)	Copper (Total)
	mg/L		mg/L as N	mg/L as P	mg/L	mg/L	mg/L
Average	2.00	1.20	0.30	0.018	0.006	0.001	0.001
Minimum	2.00	1.00	0.11	0.025	0.003	0.001	0.001
Maximum	2.00	2.00	0.45	0.013	0.014	0.001	0.004

2.2 Discharge Characteristics Results

Table 1 above shows summary of Discharge Characteristics for this reporting period.

10 minutes discharge data for this reporting period are shown in Appendix

Table 3 - Discharge Characteristics Summary

Parameter	Conductivity	Temperature	pH	DO	Cl2
	Us/cm	°C	-	mg/L	mg/L
Average	83705.15	18.00	8.03	8.38	0.00
Minimum	30577.19	10.10	5.19	5.57	0.00
Maximum	149216.17	31.47	9.00	14.85	0.00

Parameter	Biochemical Oxygen Demand	Suspended solids	Nitrogen (Total)	Phosphorus (Total)	Zinc (Total)	Lead (Total)	Copper (Total)
	mg/L		mg/L as N	mg/L as P	mg/L	mg/L	mg/L
Average	2	1.09	0.35	0.203	0.011	0.001	0.005
Minimum	2	1	0.22	0.101	0.003	0.001	0.001
Maximum	2	2	0.71	0.250	0.037	0.001	0.013

3. Salinity Monitoring Results

3.1 Average Salinity Discharge (U-149) Results

Table 4 below shows summary of average salinity discharge results for this reporting period. Over the quarter, the highest salinity measured at the 100m diffuser was 38.09 ppt and ambient salinity was 38.00 on 27/04/2018. This verifies that the salinity recorded at the 100m diffuser did not exceed the threshold of 1.3 ppt above ambient salinity.

Figure 1 below shows the graph of the average salinity at 100m from the diffuser for this reporting period. 10 minutes MP2 and MP4 data for this reporting period are shown in the Appendix. No exceedances, issues associated with Average Salinity Discharge (U-149) were addressed during this reporting period. Instrument

	Average Salinity Discharge		
	April	May	June
Average	36.28	36.62	37.11
Minimum	35.95	36.23	36.75
Maximum	38.09	37.85	37.69

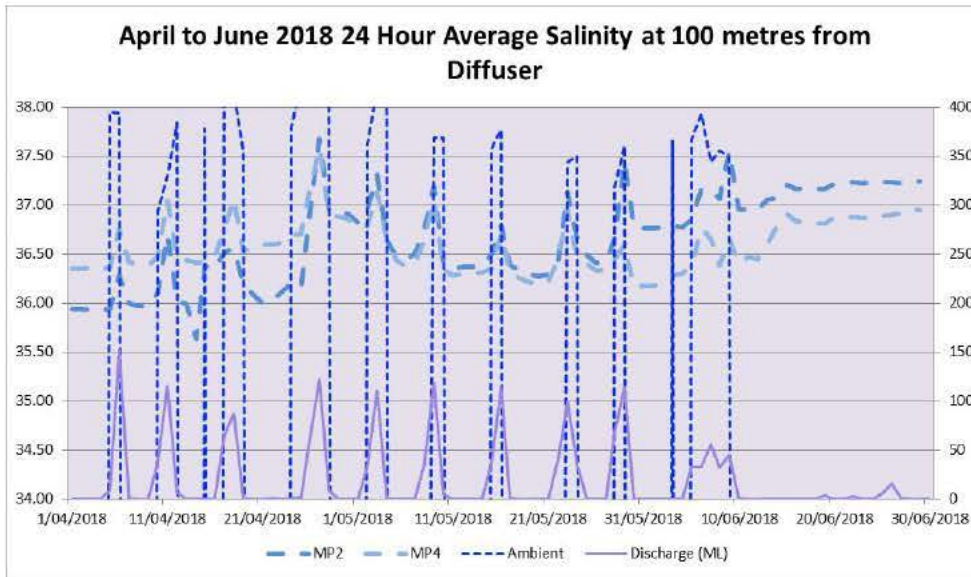


Figure 1- Average salinity at 100m from diffuser during this reporting period

3.2 Salinity Discharge (U-145,U-146) Results

Table 5 below shows summary of salinity discharge ratio results for this reporting period. Over the quarter, the highest salinity discharge ratio was 1.91 on 27/04/2018. This verifies that the discharge salinity did not exceed the intake salinity by a factor of 2.1. No exceedances, issues associated with Salinity Discharge (U-145, U-146) were addressed during this reporting period.

	Salinity Discharge Ratio		
	April	May	June
Average	1.13	1.17	1.05
Minimum	1.00	1.00	1.00
Maximum	1.91	1.89	1.81