

Trinity Point Marina Water Quality			Contractor		Most Recent Event	
Historical Chemical and Physical Measurements			Enviro Pacific Services		23-Mar-16	
Site	Date	Depth-Average Parameter				
		Temperature [C]	pH	Turbidity [NTU]	DO [%]	EC [mS/cm]
A	17-Feb-16	28.1	8.3	0.1	65.45 <sup>a</sup>	46.6
	24-Feb-16	27.8	8.0	0.4	88.8	46.6
	2-Mar-16	27.5	8.1	0.5	79.2	49.2
	9-Mar-16	27.7	8.2	1.1	87.5	49.1
	16-Mar-16 <sup>w</sup>	27.1	8.2	1.3	73.4	51.9
	23-Mar-16	23.1	8.2	3.3	85.6	50.5
	<b>Max</b>	<b>28.1</b>	<b>8.3</b>	<b>3.3</b>	<b>88.8</b>	<b>51.9</b>
	<b>Min</b>	<b>23.1</b>	<b>8.0</b>	<b>0.1</b>	<b>73.4</b>	<b>46.6</b>
B	17-Feb-16	28.1	8.2	1.5	53.1 <sup>a</sup>	46.5
	24-Feb-16	28.1	8.0	0.2	72.2	49.2
	2-Mar-16	27.5	8.1	0.0	83.5	51.2
	9-Mar-16	27.9	8.1	1.1	80.6	50.4
	16-Mar-16 <sup>w</sup>	27.0	8.2	0.3	77.6	52.1
	23-Mar-16	23.2	8.2	1.8	89.6	52.1
	<b>Max</b>	<b>28.1</b>	<b>8.2</b>	<b>1.8</b>	<b>89.6</b>	<b>52.1</b>
	<b>Min</b>	<b>23.2</b>	<b>8.0</b>	<b>0.0</b>	<b>72.2</b>	<b>46.5</b>
C	17-Feb-16	28.0	8.3	0.0	45.9 <sup>a</sup>	48.1
	24-Feb-16	27.5	8.0	0.2	87.9	50.3
	2-Mar-16	28.2	8.1	0.0	82.7	50.1
	9-Mar-16	27.2	8.2	2.6	82.5	49.1
	16-Mar-16 <sup>w</sup>	27.1	8.2	1.3	76.8	51.2
	23-Mar-16	23.0	8.2	0.1	86.1	51.8
	<b>Max</b>	<b>28.2</b>	<b>8.3</b>	<b>2.6</b>	<b>87.9</b>	<b>51.8</b>
	<b>Min</b>	<b>23.0</b>	<b>8.0</b>	<b>0.0</b>	<b>76.8</b>	<b>48.1</b>
D	17-Feb-16	28.0	8.3	0.0	51.0 <sup>a</sup>	48.3
	24-Feb-16	28.0	8.0	0.2	79.1	48.1
	2-Mar-16	27.9	8.1	0.0	89.6	50.4
	9-Mar-16	27.8	8.2	1.5	80.7	50.2
	16-Mar-16 <sup>w</sup>	27.1	8.2	0.3	87.4	51.1
	23-Mar-16	23.2	8.2	0.4	94.7	51.3
	<b>Max</b>	<b>28.0</b>	<b>8.3</b>	<b>1.5</b>	<b>94.7</b>	<b>51.3</b>
	<b>Min</b>	<b>23.2</b>	<b>8.0</b>	<b>0.0</b>	<b>79.1</b>	<b>48.1</b>
<b>Relevant Trigger Values<sup>b</sup></b>		<b>Reference<sup>c</sup></b>	<b>6.5 - 8.5</b>	<b>20</b>	<b>80 - 110</b>	<b>Reference<sup>c</sup></b>

#### NOTES

Results shaded in grey exceed relevant trigger value(s)

<sup>a</sup>Results suspected to be erroneous; possibly affected by faulty sensor or poor calibration; not identified as min values

<sup>b</sup>Sourced from section L2.4 of the EPL issued to JPG and/or Tables 3.3.2 and 3.3.3 of ANZECC Guidelines (2000)

<sup>c</sup>Reference data typically refers to site-specific data collected over long periods (preferably 12 months) that can be used to establish appropriate trigger values for that particular area

<sup>w</sup>Represents a wet weather monitoring event

Trinity Point Marina Water Quality Historical Analytical Laboratory Results		Site A	Contractor Enviropacific Services	Most Recent Event 23-Mar-16		
Analysis	LOR	Unit	Date			Trigger Values <sup>a</sup>
			24-Feb-16	9-Mar-16	23-Mar-16	
Suspended Solids	1	mg/L	4.8	5.9	2.6	10 <sup>b</sup>
Total Nitrogen	0.2	mg/L	0.5 <sup>g</sup>	0.5 <sup>g</sup>	< 0.1	0.3
Total PAH	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Total Phosphorus as P <sup>f</sup>	0.005	mg/L	< 0.05	0.79 <sup>g</sup>	0.039 <sup>g</sup>	0.03
TRH C10 - C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
TRH C6 - C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	-
<b><u>BTEX</u></b>						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.7
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Total Xylenes	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
<b><u>Dissolved Metals</u></b>						
Cadmium <sup>c</sup>	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	0.0055 <sup>d</sup>
Chromium	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.0044 <sup>e</sup>
Copper	0.001	mg/L	0.001	0.001	0.001	0.0013
Tin	0.005	mg/L	< 0.005	< 0.005	< 0.005	-
Zinc	0.001	mg/L	0.009	0.001	< 0.001	0.015 <sup>d</sup>

#### NOTES

Shaded results indicate exceedance of 95% ANZECC trigger value(s) and/or value is 20% greater than that of background sites C and D  
Dashes (-) indicate applicable data is not provided in ANZECC guidelines (2000)

<sup>a</sup>Values sourced from Table 3.3.2 of ANZECC Guidelines (2000) unless otherwise stated; only 95% trigger values are represented

<sup>b</sup>Sourced from Table 4.4.2 of ANZECC Guidelines (2000)

<sup>c</sup>Species for which possible bioaccumulation and secondary poisoning effects should be considered

<sup>d</sup>Figure may not protect key test species from chronic toxicity

<sup>e</sup>Value given specifically for Cr(IV)

<sup>f</sup>Analyte corresponds to "Total Phosphorus" referred to in ANZECC Guidelines (2000)

<sup>g</sup>Exceedance of trigger value is unlikely to be related to construction activities

Trinity Point Marina Water Quality Historical Analytical Laboratory Results		Site B	Contractor Enviropacific Services	Most Recent Event 23-Mar-16		
Analysis	LOR	Unit	Date			Trigger Values <sup>a</sup>
			24-Feb-16	9-Mar-16	23-Mar-16	
Suspended Solids	1	mg/L	3.6	5	2.8	10 <sup>b</sup>
Total Nitrogen	0.2	mg/L	0.3 <sup>g</sup>	0.5 <sup>g</sup>	< 0.1	0.3
Total PAH	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Total Phosphorus as P <sup>f</sup>	0.005	mg/L	< 0.05	< 0.05	0.038 <sup>g</sup>	0.03
TRH C10 - C36	0.1	mg/L	< 0.1	< 0.1	0.3	-
TRH C6 - C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	-
<b><u>BTEX</u></b>						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.7
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Total Xylenes	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
<b><u>Dissolved Metals</u></b>						
Cadmium <sup>c</sup>	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	0.0055 <sup>d</sup>
Chromium	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.0044 <sup>e</sup>
Copper	0.001	mg/L	0.001	0.001	< 0.001	0.0013
Tin	0.005	mg/L	< 0.005	< 0.005	< 0.005	-
Zinc	0.001	mg/L	0.002	0.004	0.004	0.015 <sup>d</sup>

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Trinity Point Marina Water Quality Historical Analytical Laboratory Results		Site D	Contractor Enviropacific Services		Most Recent Event 23-Mar-16	
Analysis	LOR	Unit	Date			Trigger Values <sup>a</sup>
			24-Feb-16	9-Mar-16	23-Mar-16	
Suspended Solids	1	mg/L	6.5	4.6	3.6	10 <sup>b</sup>
Total Nitrogen	0.2	mg/L	<0.1	0.2	0.5 <sup>b</sup>	0.3
Total PAH	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Total Phosphorus as P <sup>f</sup>	0.005	mg/L	< 0.05	< 0.05	0.034 <sup>b</sup>	0.03
TRH C10 - C36	0.1	mg/L	< 0.1	< 0.1	0.3	-
TRH C6 - C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	-
<b><u>BTEX</u></b>						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.7
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Total Xylenes	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
<b><u>Dissolved Metals</u></b>						
Cadmium <sup>c</sup>	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	0.0055 <sup>d</sup>
Chromium	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.0044 <sup>e</sup>
Copper	0.001	mg/L	0.001	0.001	0.001	0.0013
Tin	0.005	mg/L	< 0.005	< 0.005	< 0.005	-
Zinc	0.001	mg/L	0.002	0.005	0.005	0.015 <sup>d</sup>

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Trinity Point Marina Water Quality Historical Analytical Laboratory Results		Site C	Contractor Enviropacific Services		Most Recent Event 23-Mar-16	
Analysis	LOR	Unit	Date			Trigger Values <sup>a</sup>
			24-Feb-16	9-Mar-16	23-Mar-16	
Suspended Solids	1	mg/L	10 <sup>g</sup>	5.7	< 1	10 <sup>b</sup>
Total Nitrogen	0.2	mg/L	0.2	0.2	< 0.1	0.3
Total PAH	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Total Phosphorus as P <sup>f</sup>	0.005	mg/L	< 0.05	< 0.05	0.031 <sup>g</sup>	0.03
TRH C10 - C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
TRH C6 - C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	-
<b><u>BTEX</u></b>						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.7
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Total Xylenes	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
<b><u>Dissolved Metals</u></b>						
Cadmium <sup>c</sup>	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	0.0055 <sup>d</sup>
Chromium	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.0044 <sup>e</sup>
Copper	0.001	mg/L	0.001	0.001	< 0.001	0.0013
Tin	0.005	mg/L	< 0.005	< 0.005	< 0.005	-
Zinc	0.001	mg/L	0.001	0.002	0.002	0.015 <sup>d</sup>

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