APPENDICES

APPENDIX 1

Letter of Approval from Hydrology and Water Resources Division, Department of Irrigation and Drainage for using Paya Indah Water Quality Data

MALAYSIA

BAHAGIAN HIDROLOGI DAN SUMBER AIR
(Division of Hydrology and Water Resources)
JABATAN PENGAIRAN DAN SALIRAN MALAYSIA
(Department of Irrigation and Drainage, Malaysia)
KM.7, JALAN AMPANG
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KUALA LUMPUR, MALAYSIA

http://h2o.water.gov.my Tel +603 42562657, 42562923, 42562728, 42562786 Fax: +603 42564037, 42563735, 42601289, 42601279

Ruj. Tuan :

Ruj. Kami : (21) dlm. PPS. 11/4/17/1 (A) T4

Tarikh : 24 September 2007

SEGERA DENGAN FAKS

EN. RIZUAN BIN AHMAD
402, Blok B-3
Seksyen 10 Wangsa Maju
53300 Kuala Lumpur

No. Faks: 03-41458921

Tuan,

PERMOHONAN MENDAPATKAN BEKALAN DATA KUALITI AIR PAYA INDAH WETLANDS DARI JURUPERUNDING DR. NIK AND ASSOCIATES DI BAWAH PROJEK JPS MALAYSIA

Dengan segala hormatnya saya merujuk kepada perkara di atas dan juga perbualan telefon diantara tuan dengan saya pada 24 September 2007.

2. Pihak BHSA tiada halangan untuk tuan menggunakan data kualiti air Paya Indah Wetlands, Dengkil, Selangor yang dikutip oleh Juruperunding DNA yang telah dilantik oleh JPS Malaysia di bawah projek Pemulihan Paya Indah Wetlands selaan Bahagian Saliran Bandar.

3. Dengan ini, tuan dibenarkan untuk mengambil data tersebut dari pejabat Juruperunding DNA. Penggunaan data tersebut adalah tertakluk untuk tujuan akademik sahaja. Tuan juga diminta untuk mengemukakan sesalinan tesis tuan kepada Bahagian Hidrologi dan Sumber Air, JPS Malaysia untuk rujukan.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(HJH. ROSLINA SHAHADAN)
b.p.: Pengarah
Bahagian Hidrologi dan Sumber Air
Jabatan Pengairan dan Saliran Malaysia.

s.k. Pengarah Bahagian Saliran Bandar (No. Faks: 26985310)

APPENDIX 2

Correction Factor of Oxygen Solubility and Salinity by USGS

CORRECTION FACTORS FOR OXYGEN SOLUBILITY AND SALINITY 6.2.4

Correction factors for the solubility of oxygen at various temperatures and pressures and for salinity based on conductivity are given in tables 6.2–6 and 6.2–7, respectively. Tables 6.2–6 and 6.2–7 were generated from the equations of Weiss (1970) and can be customized to cover the range and decimal places needed (see OWQ Technical Memorandum 81.11).

You can convert oxygen-saturation values for salinity using correction factors based on chloride concentration or conductivity. Refer to the manufacturer's instructions for the DO instrument before applying a salinity correction.

- Correcting DO solubility for saline waters (salinities greater than 2,000 µS/cm or 1,000 mg/L chloride) varies with instrument type, calibration method, and the salts in solution.
- The correction based on conductivity (table 6.2–7) is more useful because accurate conductivity can be easily determined from a field measurement. Salinity correction factors based on chloride can be calculated using information provided in OWQ Technical Memorandum 79.10.
- Dissolved-oxygen instruments use either an automatic internal salinity correction, a manual salinity control knob for internal correction, or the calibration control knob for manual salinity correction.
- Check that instruments with automatic internal salinity correction use approved salinity correction factors.

Example of salinity correction:

$$8.2\ mg/L \times 0.951 = 7.8\ mg/L$$

where,

8.2 mg/L is 100 percent DO saturation from table 6.2–6,

0.951 is the correction factor from table 6.2–7, and

7.8 mg/L is the corrected value.

For this example, you would adjust the DO instrument to 7.8 mg/L from 8.2 mg/L.

To express results as percent saturation, use the following equation:

$$DO\ (percent\ saturation) = \frac{measured\ DO\ (mg/L)}{DO\ (mg/L\ at\ 100\ percent\ saturation)} \times 100$$

Table 6.2–6. Solubility of oxygen in water at various temperatures and pressures

[From R.F. Weiss (1970). Temp °C, temperature in degrees Celsius; atmospheric pressures from 695 to 600 millimeters mercury begin after 40°C]

Temp	Atmospheric pressure, in millimeters of mercury																			
°C	795	790	785	780	775	770	765	760	755	750	745	740	735	730	725	720	715	710	705	700
0.0	15.3	15.2	15.1	15.0	14.9	14.8	14.7	14.6	14.5	14.4	14.3	14.2	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.4
0.5	15.1	15.0	14.9	14.8	14.7	14.6	14.5	14.4	14.3	14.2	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.2
1.0	14.8	14.7	14.7	14.6	14.5	14.4	14.3	14.2	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.2	13.2	13.1
1.5	14.6	14.5	14.5	14.4	14.3	14.2	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.2	13.2	13.1	13.0	12.9
2.0	14.4	14.3	14.3	14.2	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.3	13.2	13.1	13.0	12.9	12.8	12.7
2.5	14.2	14.2	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.3	13.2	13.1	13.0	12.9	12.8	12.7	12.6	12.5
3.0	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.3	13.2	13.1	13.0	12.9	12.8	12.7	12.6	12.5	12.5	12.4
3.5	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.3	13.2	13.1	13.0	12.9	12.8	12.7	12.6	12.6	12.5	12.4	12.3	12.2
4.0	13.7	13.6	13.5	13.4	13.3	13.3	13.2	13.1	13.0	12.9	12.8	12.7	12.6	12.6	12.5	12.4	12.3	12.2	12.1	12.0
4.5	13.5	13.4	13.3	13.3	13.2	13.1	13.0	12.9	12.8	12.7	12.7	12.6	12.5	12.4	12.3	12.2	12.1	12.1	12.0	11.9
5.0	13.3	13.3	13.2	13.1	13.0	12.9	12.8	12.7	12.7	12.6	12.5	12.4	12.3	12.2	12.2	12.1	12.0	11.9	11.8	11.7
5.5	13.2	13.1	13.0	12.9	12.8	12.7	12.7	12.6	12.5	12.4	12.3	12.2	12.2	12.1	12.0	11.9	11.8	11.7	11.7	11.6
6.0	13.0	12.9	12.8	12.8	12.7	12.6	12.5	12.4	12.3	12.3	12.2	12.1	12.0	11.9	11.8	11.8	11.7	11.6	11.5	11.4
6.5	12.8	12.8	12.7	12.6	12.5	12.4	12.3	12.3	12.2	12.1	12.0	11.9	11.9	11.8	11.7	11.6	11.5	11.5	11.4	11.3
7.0	12.7	12.6	12.5	12.4	12.4	12.3	12.2	12.1	12.0	12.0	11.9	11.8	11.7	11.6	11.6	11.5	11.4	11.3	11.2	11.1
7.5	12.5	12.4	12.4	12.3	12.2	12.1	12.0	12.0	11.9	11.8	11.7	11.6	11.6	11.5	11.4	11.3	11.3	11.2	11.1	11.0
8.0	12.4	12.3	12.2	12.1	12.1	12.0	11.9	11.8	11.7	11.7	11.6	11.5	11.4	11.3	11.3	11.2	11.1	11.0	11.0	10.9
8.5	12.2	12.1	12.1	12.0	11.9	11.8	11.8	11.7	11.6	11.5	11.4	11.4	11.3	11.2	11.1	11.1	11.0	10.9	10.8	10.7
9.0	12.1	12.0	11.9	11.8	11.8	11.7	11.6	11.5	11.5	11.4	11.3	11.2	11.2	11.1	11.0	10.9	10.8	10.8	10.7	10.6
9.5	11.9	11.9	11.8	11.7	11.6	11.6	11.5	11.4	11.3	11.2	11.2	11.1	11.0	10.9	10.9	10.8	10.7	10.6	10.6	10.5
10.0	11.8	11.7	11.6	11.6	11.5	11.4	11.3	11.3	11.2	11.1	11.0	11.0	10.9	10.8	10.7	10.7	10.6	10.5	10.4	10.4
10.5	11.7	11.6	11.5	11.4	11.4	11.3	11.2	11.1	11.1	11.0	10.9	10.8	10.8	10.7	10.6	10.5	10.5	10.4	10.3	10.2
11.0	11.5	11.4	11.4	11.3	11.2	11.2	11.1	11.0	10.9	10.9	10.8	10.7	10.6	10.6	10.5	10.4	10.3	10.3	10.2	10.1
11.5	11.4	11.3	11.2	11.2	11.1	11.0	11.0	10.9	10.8	10.7	10.7	10.6	10.5	10.4	10.4	10.3	10.2	10.2	10.1	10.0
12.0	11.3	11.2	11.1	11.0	11.0	10.9	10.8	10.8	10.7	10.6	10.5	10.5	10.4	10.3	10.3	10.2	10.1	10.0	10.0	9.9
12.5	11.1	11.1	11.0	10.9	10.8	10.8	10.7	10.6	10.6	10.5	10.4	10.4	10.3	10.2	10.1	10.1	10.0	9.9	9.9	9.8
13.0	11.0	10.9	10.9	10.8	10.7	10.7	10.6	10.5	10.4	10.4	10.3	10.2	10.2	10.1	10.0	10.0	9.9	9.8	9.7	9.7
13.5	10.9	10.8	10.7	10.7	10.6	10.5	10.5	10.4	10.3	10.3	10.2	10.1	10.1	10.0	9.9	9.8	9.8	9.7	9.6	9.6
14.0	10.8	10.7	10.6	10.6	10.5	10.4	10.4	10.3	10.2	10.1	10.1	10.0	9.9	9.9	9.8	9.7	9.7	9.6	9.5	9.5
14.5	10.6	10.6	10.5	10.4	10.4	10.3	10.2	10.2	10.1	10.0	10.0	9.9	9.8	9.8	9.7	9.6	9.6	9.5	9.4	9.4

Table 6.2–6. Solubility of oxygen in water at various temperatures and pressures—Continued

Temp °C	Atmospheric pressure, in millimeters of mercury																		
	795	790	785	780	775	770	765	760	755	750	745	740	735	730	725	720	715	710	705	700
15.0	10.5	10.5	10.4	10.3	10.3	10.2	10.1	10.1	10.0	9.9	9.9	9.8	9.7	9.7	9.6	9.5	9.5	9.4	9.3	9.3
15.5	10.4	10.4	10.3	10.2	10.2	10.1	10.0	10.0	9.9	9.8	9.8	9.7	9.6	9.6	9.5	9.4	9.4	9.3	9.2	9.2
16.0	10.3	10.2	10.2	10.1	10.0	10.0	9.9	9.8	9.8	9.7	9.7	9.6	9.5	9.5	9.4	9.3	9.3	9.2	9.1	9.1
16.5	10.2	10.1	10.1	10.0	9.9	9.9	9.8	9.7	9.7	9.6	9.5	9.5	9.4	9.4	9.3	9.2	9.2	9.1	9.0	9.0
17.0	10.1	10.0	10.0	9.9	9.8	9.8	9.7	9.6	9.6	9.5	9.4	9.4	9.3	9.3	9.2	9.1	9.1	9.0	8.9	8.9
17.5	10.0	9.9	9.9	9.8	9.7	9.7	9.6	9.5	9.5	9.4	9.3	9.3	9.2	9.2	9.1	9.0	9.0	8.9	8.8	8.8
18.0	9.9	9.8	9.8	9.7	9.6	9.6	9.5	9.4	9.4	9.3	9.3	9.2	9.1	9.1	9.0	8.9	8.9	8.8	8.7	8.7
18.5	9.8	9.7	9.7	9.6	9.5	9.5	9.4	9.3	9.3	9.2	9.2	9.1	9.0	9.0	8.9	8.8	8.8	8.7	8.7	8.6
19.0	9.7	9.6	9.6	9.5	9.4	9.4	9.3	9.3	9.2	9.1	9.1	9.0	8.9	8.9	8.8	8.8	8.7	8.6	8.6	8.5
19.5	9.6	9.5	9.5	9.4	9.3	9.3	9.2	9.2	9.1	9.0	9.0	8.9	8.9	8.8	8.7	8.7	8.6	8.5	8.5	8.4
20.0	9.5	9.4	9.4	9.3	9.3	9.2	9.1	9.1	9.0	8.9	8.9	8.8	8.8	8.7	8.6	8.6	8.5	8.5	8.4	8.3
20.5	9.4	9.3	9.3	9.2	9.2	9.1	9.0	9.0	8.9	8.9	8.8	8.7	8.7	8.6	8.6	8.5	8.4	8.4	8.3	8.3
21.0	9.3	9.2	9.2	9.1	9.1	9.0	8.9	8.9	8.8	8.8	8.7	8.6	8.6	8.5	8.5	8.4	8.4	8.3	8.2	8.2
21.5	9.2	9.2	9.1	9.0	9.0	8.9	8.9	8.8	8.7	8.7	8.6	8.6	8.5	8.4	8.4	8.3	8.3	8.2	8.1	8.1
22.0	9.1	9.1	9.0	9.0	8.9	8.8	8.8	8.7	8.7	8.6	8.5	8.5	8.4	8.4	8.3	8.2	8.2	8.1	8.1	8.0
22.5	9.0	9.0	8.9	8.9	8.8	8.8	8.7	8.6	8.6	8.5	8.5	8.4	8.3	8.3	8.2	8.2	8.1	8.0	8.0	7.9
23.0	9.0	8.9	8.8	8.8	8.7	8.7	8.6	8.6	8.5	8.4	8.4	8.3	8.3	8.2	8.1	8.1	8.0	8.0	7.9	7.9
23.5	8.9	8.8	8.8	8.7	8.6	8.6	8.5	8.5	8.4	8.4	8.3	8.2	8.2	8.1	8.1	8.0	8.0	7.9	7.8	7.8
24.0	8.8	8.7	8.7	8.6	8.6	8.5	8.4	8.4	8.3	8.3	8.2	8.2	8.1	8.0	8.0	7.9	7.9	7.8	7.8	7.7
24.5	8.7	8.7	8.6	8.5	8.5	8.4	8.4	8.3	8.3	8.2	8.1	8.1	8.0	8.0	7.9	7.9	7.8	7.7	7.7	7.6
25.0	8.6	8.6	8.5	8.5	8.4	8.3	8.3	8.2	8.2	8.1	8.1	8.0	8.0	7.9	7.8	7.8	7.7	7.7	7.6	7.6
25.5	8.5	8.5	8.4	8.4	8.3	8.3	8.2	8.2	8.1	8.0	8.0	7.9	7.9	7.8	7.8	7.7	7.7	7.6	7.6	7.5
26.0	8.5	8.4	8.4	8.3	8.3	8.2	8.1	8.1	8.0	8.0	7.9	7.9	7.8	7.8	7.7	7.6	7.6	7.5	7.5	7.4
26.5	8.4	8.3	8.3	8.2	8.2	8.1	8.1	8.0	8.0	7.9	7.8	7.8	7.7	7.7	7.6	7.6	7.5	7.5	7.4	7.4
27.0	8.3	8.3	8.2	8.2	8.1	8.0	8.0	7.9	7.9	7.8	7.8	7.7	7.7	7.6	7.6	7.5	7.5	7.4	7.3	7.3
27.5	8.2	8.2	8.1	8.1	8.0	8.0	7.9	7.9	7.8	7.8	7.7	7.7	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.2
28.0	8.2	8.1	8.1	8.0	8.0	7.9	7.9	7.8	7.7	7.7	7.6	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.2	7.2
28.5	8.1	8.0	8.0	7.9	7.9	7.8	7.8	7.7	7.7	7.6	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.2	7.1	7.1
29.0	8.0	8.0	7.9	7.9	7.8	7.8	7.7	7.7	7.6	7.6	7.5	7.5	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.0
29.5	8.0	7.9	7.9	7.8	7.8	7.7	7.6	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.0	7.0

Table 6.2–6. Solubility of oxygen in water at various temperatures and pressures—Continued

Temp °C	Atmospheric pressure, in millimeters of mercury																			
	795	790	785	780	775	770	765	760	755	750	745	740	735	730	725	720	715	710	705	700
30.0	7.9	7.8	7.8	7.7	7.7	7.6	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.0	7.0	6.9
30.5	7.8	7.8	7.7	7.7	7.6	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.9
31.0	7.8	7.7	7.7	7.6	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.2	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.8
31.5	7.7	7.6	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.8	6.7
32.0	7.6	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.8	6.7	6.7
32.5	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6
33.0	7.5	7.5	7.4	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6
33.5	7.4	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5
34.0	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.7	6.6	6.6	6.5	6.5
34.5	7.3	7.3	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.5	6.4
35.0	7.3	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3
35.5	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3
36.0	7.2	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2
36.5	7.1	7.0	7.0	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2
37.0	7.0	7.0	6.9	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1
37.5	7.0	6.9	6.9	6.8	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1
38.0	6.9	6.9	6.8	6.8	6.7	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0
38.5	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0
39.0	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	6.0
39.5	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	6.0	5.9
40.0	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.9

Table 6.2-6. Solubility of oxygen in water at various temperatures and pressures—Continued

Temp °C	Atmospheric pressure, in millimeters of mercury																			
	695	690	685	680	675	670	665	660	655	650	645	640	635	630	625	620	615	610	605	600
0.0	13.3	13.2	13.1	13.0	12.9	12.8	12.8	12.7	12.6	12.5	12.4	12.3	12.2	12.1	12.0	11.9	11.8	11.7	11.6	11.5
0.5	13.1	13.1	13.0	12.9	12.8	12.7	12.6	12.5	12.4	12.3	12.2	12.1	12.0	11.9	11.8	11.7	11.6	11.5	11.4	11.3
1.0	13.0	12.9	12.8	12.7	12.6	12.5	12.4	12.3	12.2	12.1	12.0	11.9	11.8	11.7	11.6	11.6	11.5	11.4	11.3	11.2
1.5	12.8	12.7	12.6	12.5	12.4	12.3	12.2	12.1	12.0	12.0	11.9	11.8	11.7	11.6	11.5	11.4	11.3	11.2	11.1	11.0
2.0	12.6	12.5	12.4	12.3	12.2	12.2	12.1	12.0	11.9	11.8	11.7	11.6	11.5	11.4	11.3	11.2	11.1	11.1	11.0	10.9
2.5	12.4	12.4	12.3	12.2	12.1	12.0	11.9	11.8	11.7	11.6	11.5	11.4	11.4	11.3	11.2	11.1	11.0	10.9	10.8	10.7
3.0	12.3	12.2	12.1	12.0	11.9	11.8	11.7	11.7	11.6	11.5	11.4	11.3	11.2	11.1	11.0	10.9	10.9	10.8	10.7	10.6
3.5	12.1	12.0	11.9	11.8	11.8	11.7	11.6	11.5	11.4	11.3	11.2	11.1	11.1	11.0	10.9	10.8	10.7	10.6	10.5	10.4
4.0	12.0	11.9	11.8	11.7	11.6	11.5	11.4	11.3	11.3	11.2	11.1	11.0	10.9	10.8	10.7	10.7	10.6	10.5	10.4	10.3
4.5	11.8	11.7	11.6	11.5	11.5	11.4	11.3	11.2	11.1	11.0	10.9	10.9	10.8	10.7	10.6	10.5	10.4	10.3	10.3	10.2
5.0	11.6	11.6	11.5	11.4	11.3	11.2	11.1	11.1	11.0	10.9	10.8	10.7	10.6	10.5	10.5	10.4	10.3	10.2	10.1	10.0
5.5	11.5	11.4	11.3	11.2	11.2	11.1	11.0	10.9	10.8	10.7	10.7	10.6	10.5	10.4	10.3	10.2	10.2	10.1	10.0	9.9
6.0	11.4	11.3	11.2	11.1	11.0	10.9	10.9	10.8	10.7	10.6	10.5	10.4	10.4	10.3	10.2	10.1	10.0	9.9	9.9	9.8
6.5	11.2	11.1	11.0	11.0	10.9	10.8	10.7	10.6	10.6	10.5	10.4	10.3	10.2	10.1	10.1	10.0	9.9	9.8	9.7	9.7
7.0	11.1	11.0	10.9	10.8	10.7	10.7	10.6	10.5	10.4	10.3	10.3	10.2	10.1	10.0	9.9	9.9	9.8	9.7	9.6	9.5
7.5	10.9	10.9	10.8	10.7	10.6	10.5	10.5	10.4	10.3	10.2	10.1	10.1	10.0	9.9	9.8	9.7	9.7	9.6	9.5	9.4
8.0	10.8	10.7	10.6	10.6	10.5	10.4	10.3	10.2	10.2	10.1	10.0	9.9	9.9	9.8	9.7	9.6	9.5	9.5	9.4	9.3
8.5	10.7	10.6	10.5	10.4	10.4	10.3	10.2	10.1	10.0	10.0	9.9	9.8	9.7	9.7	9.6	9.5	9.4	9.3	9.3	9.2
9.0	10.5	10.5	10.4	10.3	10.2	10.2	10.1	10.0	9.9	9.8	9.8	9.7	9.6	9.5	9.5	9.4	9.3	9.2	9.2	9.1
9.5	10.4	10.3	10.3	10.2	10.1	10.0	10.0	9.9	9.8	9.7	9.7	9.6	9.5	9.4	9.4	9.3	9.2	9.1	9.0	9.0
10.0	10.3	10.2	10.1	10.1	10.0	9.9	9.8	9.8	9.7	9.6	9.5	9.5	9.4	9.3	9.2	9.2	9.1	9.0	8.9	8.9
10.5	10.2	10.1	10.0	9.9	9.9	9.8	9.7	9.7	9.6	9.5	9.4	9.4	9.3	9.2	9.1	9.1	9.0	8.9	8.8	8.8
11.0	10.1	10.0	9.9	9.8	9.8	9.7	9.6	9.5	9.5	9.4	9.3	9.2	9.2	9.1	9.0	9.0	8.9	8.8	8.7	8.7
11.5	9.9	9.9	9.8	9.7	9.6	9.6	9.5	9.4	9.4	9.3	9.2	9.1	9.1	9.0	8.9	8.8	8.8	8.7	8.6	8.6
12.0	9.8	9.8	9.7	9.6	9.5	9.5	9.4	9.3	9.2	9.2	9.1	9.0	9.0	8.9	8.8	8.7	8.7	8.6	8.5	8.5
12.5	9.7	9.6	9.6	9.5	9.4	9.4	9.3	9.2	9.1	9.1	9.0	8.9	8.9	8.8	8.7	8.6	8.6	8.5	8.4	8.4
13.0	9.6	9.5	9.5	9.4	9.3	9.3	9.2	9.1	9.0	9.0	8.9	8.8	8.8	8.7	8.6	8.5	8.5	8.4	8.3	8.3
13.5	9.5	9.4	9.4	9.3	9.2	9.1	9.1	9.0	8.9	8.9	8.8	8.7	8.7	8.6	8.5	8.5	8.4	8.3	8.2	8.2
14.0	9.4	9.3	9.3	9.2	9.1	9.0	9.0	8.9	8.8	8.8	8.7	8.6	8.6	8.5	8.4	8.4	8.3	8.2	8.2	8.1
14.5	9.3	9.2	9.2	9.1	9.0	8.9	8.9	8.8	8.7	8.7	8.6	8.5	8.5	8.4	8.3	8.3	8.2	8.1	8.1	8.0

Table 6.2–6. Solubility of oxygen in water at various temperatures and pressures—Continued

Temp	Atmospheric pressure, in millimeters of mercury																			
°C	695	690	685	680	675	670	665	660	655	650	645	640	635	630	625	620	615	610	605	600
15.0	9.2	9.1	9.1	9.0	8.9	8.8	8.8	8.7	8.6	8.6	8.5	8.4	8.4	8.3	8.2	8.2	8.1	8.0	8.0	7.9
15.5	9.1	9.0	9.0	8.9	8.8	8.8	8.7	8.6	8.6	8.5	8.4	8.4	8.3	8.2	8.2	8.1	8.0	8.0	7.9	7.8
16.0	9.0	8.9	8.9	8.8	8.7	8.7	8.6	8.5	8.5	8.4	8.3	8.3	8.2	8.1	8.1	8.0	7.9	7.9	7.8	7.7
16.5	8.9	8.8	8.8	8.7	8.6	8.6	8.5	8.4	8.4	8.3	8.2	8.2	8.1	8.0	8.0	7.9	7.8	7.8	7.7	7.7
17.0	8.8	8.7	8.7	8.6	8.5	8.5	8.4	8.3	8.3	8.2	8.2	8.1	8.0	8.0	7.9	7.8	7.8	7.7	7.6	7.6
17.5	8.7	8.6	8.6	8.5	8.5	8.4	8.3	8.3	8.2	8.1	8.1	8.0	7.9	7.9	7.8	7.7	7.7	7.6	7.6	7.5
18.0	8.6	8.6	8.5	8.4	8.4	8.3	8.2	8.2	8.1	8.0	8.0	7.9	7.9	7.8	7.7	7.7	7.6	7.5	7.5	7.4
18.5	8.5	8.5	8.4	8.3	8.3	8.2	8.2	8.1	8.0	8.0	7.9	7.8	7.8	7.7	7.7	7.6	7.5	7.5	7.4	7.3
19.0	8.4	8.4	8.3	8.3	8.2	8.1	8.1	8.0	7.9	7.9	7.8	7.8	7.7	7.6	7.6	7.5	7.4	7.4	7.3	7.3
19.5	8.4	8.3	8.2	8.2	8.1	8.0	8.0	7.9	7.9	7.8	7.7	7.7	7.6	7.6	7.5	7.4	7.4	7.3	7.2	7.2
20.0	8.3	8.2	8.2	8.1	8.0	8.0	7.9	7.8	7.8	7.7	7.7	7.6	7.5	7.5	7.4	7.4	7.3	7.2	7.2	7.1
20.5	8.2	8.1	8.1	8.0	7.9	7.9	7.8	7.8	7.7	7.6	7.6	7.5	7.5	7.4	7.3	7.3	7.2	7.2	7.1	7.0
21.0	8.1	8.1	8.0	7.9	7.9	7.8	7.8	7.7	7.6	7.6	7.5	7.5	7.4	7.3	7.3	7.2	7.2	7.1	7.0	7.0
21.5	8.0	8.0	7.9	7.9	7.8	7.7	7.7	7.6	7.6	7.5	7.4	7.4	7.3	7.3	7.2	7.1	7.1	7.0	7.0	6.9
22.0	8.0	7.9	7.8	7.8	7.7	7.7	7.6	7.5	7.5	7.4	7.4	7.3	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.8
22.5	7.9	7.8	7.8	7.7	7.6	7.6	7.5	7.5	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.0	6.9	6.9	6.8	6.8
23.0	7.8	7.7	7.7	7.6	7.6	7.5	7.5	7.4	7.3	7.3	7.2	7.2	7.1	7.0	7.0	6.9	6.9	6.8	6.8	6.7
23.5	7.7	7.7	7.6	7.6	7.5	7.4	7.4	7.3	7.3	7.2	7.2	7.1	7.0	7.0	6.9	6.9	6.8	6.7	6.7	6.6
24.0	7.7	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.2	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.7	6.7	6.6	6.6
24.5	7.6	7.5	7.5	7.4	7.4	7.3	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5
25.0	7.5	7.5	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.4
25.5	7.4	7.4	7.3	7.3	7.2	7.2	7.1	7.1	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.4	6.4
26.0	7.4	7.3	7.3	7.2	7.2	7.1	7.0	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.5	6.5	6.4	6.4	6.3
26.5	7.3	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.8	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3
27.0	7.2	7.2	7.1	7.1	7.0	7.0	6.9	6.9	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2
27.5	7.2	7.1	7.1	7.0	7.0	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2
28.0	7.1	7.1	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.1	6.1
28.5	7.0	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.2	6.2	6.1	6.1	6.0
29.0	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.2	6.2	6.1	6.1	6.0	6.0
29.5	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	5.9

Table 6.2–6. Solubility of oxygen in water at various temperatures and pressures—Continued

Temp °C	Atmospheric pressure, in millimeters of mercury																			
	695	690	685	680	675	670	665	660	655	650	645	640	635	630	625	620	615	610	605	600
30.0	6.9	6.8	6.8	6.7	6.7	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9
30.5	6.8	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.8
31.0	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8
31.5	6.7	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7
32.0	6.6	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.7
32.5	6.6	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6
33.0	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6
33.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5
34.0	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5
34.5	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.4
35.0	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.4	5.4
35.5	6.2	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.3
36.0	6.2	6.1	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.3	5.3
36.5	6.1	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.3	5.3	5.2
37.0	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.3	5.3	5.3	5.2
37.5	6.0	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.3	5.3	5.3	5.2	5.2
38.0	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.3	5.3	5.3	5.2	5.2	5.1
38.5	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.4	5.3	5.3	5.2	5.2	5.1	5.1
39.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.4	5.3	5.3	5.2	5.2	5.1	5.1	5.0
39.5	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.4	5.3	5.3	5.2	5.2	5.1	5.1	5.0	5.0
40.0	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.4	5.3	5.3	5.2	5.2	5.1	5.1	5.0	5.0	5.0

APPENDIX 3

Baseline Water Quality Results of Paya Indah

Appendix 3

First baseline water quality results of Paya Indah

Parameters	Unit	Results				
		W1	W2	W3	W4	W5
pH	-	5.0	4.7	5.6	4.9	6.4
Temperature*	°C	27.49	31.02	27.25	29.43	28.52
DO*	mg/l	1.17	3.07	0.68	0.94	0.82
BOD	mg/l	5	3	17	9	4
COD	mg/l	49	26	104	85	43
TSS	mg/l	4	28	21	86	19
Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium as Cd	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic as As	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
Total Chromium	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
Cyanide as CN	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Lead as Pb	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Copper as Cu	mg/l	0.02	0.01	0.02	0.02	0.02
Managanese as Mn	mg/l	0.04	0.09	0.07	0.09	0.10
Nickel as Ni	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Tin as Tn	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
Zinc as Zn	mg/l	<0.01	0.02	0.03	<0.01	<0.01
Boron as B	mg/l	0.1	0.1	0.3	0.2	0.1
Iron as Fe	mg/l	1.31	1.87	2.93	4.47	5.24
Phenol	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Free Chlorine as Cl_2	mg/l	<0.1	<0.1	0.2	0.1	<0.1
Sulphide as S^{2-}	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
Ammoniacal Nitrogen as N	mg/l	0.4	0.4	1.1	0.4	0.7
Total Phosphorus	mg/l	<0.1	<0.1	0.1	<0.1	<0.1
Oil & Grease	Mg/l	N/A	N/A	N/A	N/A	N/A
E. coli	MPN/100 ml	N/A	N/A	N/A	N/A	N/A

**in-situ, ND: not detected, N/A: not available*

First baseline water quality results of Paya Indah

Parameters	Unit	Results				
		W6	W7	W8	W9	W10
pH	-	6.3	5.9	4.4	4.5	5.6
Temperature*	°C	28.65	28.42	27.66	34.22	31.04
DO*	mg/l	0.79	0.71	0.78	2.69	3.78
BOD	mg/l	4	4	8	9	<2
COD	mg/l	34	33	103	132	12
TSS	mg/l	22	22	3	68	6
Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium as Cd	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic as As	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
Total Chromium	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
Cyanide as CN	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Lead as Pb	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Copper as Cu	mg/l	0.02	0.03	0.02	0.03	0.03
Managanese as Mn	mg/l	0.17	0.20	0.11	0.08	0.12
Nickel as Ni	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Tin as Tn	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
Zinc as Zn	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
Boron as B	mg/l	0.2	0.2	0.1	0.1	<0.1
Iron as Fe	mg/l	4.12	4.18	2.91	3.66	0.67
Phenol	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Free Chlorine as Cl_2	mg/l	<0.1	<0.1	0.1	0.1	<0.1
Sulphide as S^{2-}	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
Ammoniacal Nitrogen as N	mg/l	0.2	0.2	0.6	0.3	<0.1
Total Phosphorus	mg/l	<0.1	0.2	<0.1	0.1	<0.1
Oil and Grease	mg/l	N/A	N/A	N/A	N/A	N/A
E. coli	MPN/100 ml	N/A	N/A	N/A	N/A	N/A

**in-situ, ND: not detected, N/A: not available*

Appendix 3 (cont'd)

First baseline water quality results of Paya Indah

Parameters	Unit	Results				
		W11	W12	W13	W14	W15
pH	-	5.7	5.6	6.0	7.7	4.8
Temperature*	°C	29.69	27.98	27.87	29.74	29.12
DO*	mg/l	2.55	0.78	2.05	3.55	0.79
BOD	mg/l	4	<2	<2	2	7
COD	mg/l	35	8	7	9	74
TSS	mg/l	86	4	3	2	4
Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium as Cd	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic as As	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
Total Chromium	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
Cyanide as CN	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Lead as Pb	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Copper as Cu	mg/l	0.02	0.02	0.02	0.04	0.04
Managanese as Mn	mg/l	0.08	0.10	0.10	0.09	0.09
Nickel as Ni	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Tin as Tn	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
Zinc as Zn	mg/l	<0.01	<0.01	<0.01	<0.01	0.03
Boron as B	mg/l	0.1	<0.1	<0.1	<0.1	0.1
Iron as Fe	mg/l	1.23	1.19	0.96	1.16	3.80
Phenol	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Free Chlorine as Cl_2	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
Sulphide as S^{2-}	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
Ammoniacal Nitrogen as N	mg/l	0.8	<0.1	<0.1	0.3	<0.1
Total Phosphorus	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
Oil and Grease	mg/l	N/A	N/A	N/A	N/A	N/A
E. coli	MPN/100 ml	N/A	N/A	N/A	N/A	N/A

**in-situ, ND: not detected, N/A: not available*

Appendix 3 (cont'd)

Second baseline water quality results of Paya Indah

Parameters	Unit	Results				
		W11	W12	W13	W14	W15
pH	-	5.1	5.9	6.1	6.6	4.8
Temperature*	°C	31.04	29.39	28.60	31.32	30.53
DO*	mg/l	4.91	3.50	2.25	3.79	1.07
BOD	mg/l	<2	<2	<2	<2	<2
COD	mg/l	40	24	34	32	141
TSS	mg/l	4	2	3	2	5
Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium as Cd	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic as As	mg/l	N/A	N/A	N/A	N/A	N/A
Total Chromium	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
Cyanide as CN	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Lead as Pb	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Copper as Cu	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
Managanese as Mn	mg/l	0.12	0.13	0.05	0.12	0.06
Nickel as Ni	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Tin as Tn	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
Zinc as Zn	mg/l	0.20	0.15	0.15	0.15	0.22
Boron as B	mg/l	0.1	<0.1	0.2	0.1	0.1
Iron as Fe	mg/l	9.18	9.89	4.74	11.98	6.94
Phenol	mg/l	N/A	N/A	N/A	N/A	N/A
Free Chlorine as Cl_2	mg/l	<0.1	<0.1	<0.1	<0.1	0.1
Sulphide as S^{2-}	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
Ammoniacal Nitrogen as N	mg/l	0.4	0.2	0.1	0.4	0.2
Total Phosphorus	mg/l	<0.1	<0.1	<0.1	0.1	0.2
Oil and Grease	mg/l	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)
E. coli	MPN/100 ml	24000	37000	31000	400	4200

**in-situ, ND: not detected, N/A: not available*

APPENDIX 4

Water Quality Parameters' Sub-Indices for WQI Calculation

Appendix 4

PARAMETERS SUB-INDEX FOR WATER QUALITY INDEX (WQI) CALCULATION

Dissolved Oxygen (DO)

	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15
Week 1	5.53551	36.9581	1.70017	3.71204	2.76571	2.54688	1.93986	2.405	32.5577	51.2264	26.4242	2.405	16.6965	45.6088	2.62189
Week 2	1.58227	46.1144	7.75031	2.405	19.1393	31.8405	78.005	0	79.1073	72.713	67.0021	19.2713	17.4004	67.0708	12.9708
Week 3	11.5041	37.3746	12.0757	38.9636	11.1513	17.095	34.4314	37.2523	26.7354	35.5356	15.8108	36.288	24.3425	10.2523	9.51745
Week 4	2.82888	21.6852	8.93499	3.05104	19.6297	14.4541	10.005	5.34522	22.8188	29.0838	17.4935	6.22271	5.92419	51.1238	4.17565
Week 5	2.82888	30.9609	8.20466	3.68274	47.5222	100	72.6381	0.94282	45.8581	57.3769	48.805	18.9259	25.0704	51.381	5.68
Week 6	1.51193	25.3533	10.6858	0	38.586	52.6034	45.1104	42.8732	25.7534	46.4569	34.805	16.4854	15.4556	82.6087	9.52953

Biochemical Oxygen Demand (BOD)

	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15
Week 1	0	0	0	62.33	83.48	83.48	83.48	66.56	0	0	83.48	0	0	0	70.79
Week 2	0	0	0	83.48	91.94	91.94	91.94	79.25	0	72.7887	91.94	0	0	0	87.71
Week 3	0	91.94	87.71	87.71	0	0	0	79.25	83.48	0	91.94	0	0	0	77.0438
Week 4	83.48	87.71	77.0438	77.0438	79.25	87.71	87.71	77.0438	77.0438	0	83.48	0	0	0	77.0438
Week 5	87.71	83.48	79.25	83.48	91.94	87.71	91.94	79.25	72.7887	0	91.94	0	0	0	83.48
Week 6	91.94	14.2865	79.25	83.48	91.94	91.94	91.94	83.48	91.94	0	0	0	0	0	87.71

Appendix 4

Suspended Solids (SS)

	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15
Week 1	95.0989	82.0866	85.6465	61.7438	86.698	85.1265	85.1265	95.6926	64.9699	93.9245	61.7438	0	0	96.2907	95.0989
Week 2	95.0989	84.6104	95.0989	58.037	83.5896	83.5896	88.8482	96.2907	79.655	79.655	43.1261	0	0	96.2907	92.7672
Week 3	87.2296	51.1727	87.7652	77.3124	76.8544	82.0866	89.3958	94.5096	94.5096	68.3821	46.9081	0	77.774	0	93.9245
Week 4	0	89.3958	90.5031	92.7672	58.4168	90.5031	95.0989	95.6926	91.0629	95.0989	53.7487	96.2907	96.2907	95.6926	95.6926
Week 5	95.0989	89.3958	96.2907	92.1949	92.7672	88.3047	91.0629	0	55.4441	95.6926	65.7079	96.2907	95.6926	96.2907	93.3438
Week 6	93.3438	66.8365	95.0989	88.3047	93.9245	80.1341	87.2296	95.0989	94.5096	95.6926	84.0981	0	0	96.2907	95.0989

pH

	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15
Week 1	56.7	47.2518	83.6288	53.4502	95.9968	94.9177	89.2673	38.7072	41.455	83.6288	85.6417	83.6288	90.88	94.7755	50.3008
Week 2	50.3008	97.7548	41.455	38.7072	63.5008	94.9177	92.3593	33.5128	47.2518	56.7	63.5008	67.0518	90.88	70.7032	60.0502
Week 3	41.455	83.6288	85.6417	53.4502	96.9425	98.9792	97.7548	47.2518	53.4502	67.0518	81.4825	81.4825	85.6417	99.3913	63.5008
Week 4	50.3008	44.3032	33.5128	38.7072	89.2673	90.88	90.88	36.0598	38.7072	53.4502	47.2518	63.5008	67.0518	97.7548	44.3032
Week 5	50.3008	63.5008	33.5128	53.4502	93.7052	90.88	92.3593	38.7072	41.455	50.3008	56.7	56.7	87.5212	93.7052	85.6417
Week 6	81.4825	118.62	87.1438	53.4502	99.0595	96.9425	97.7548	38.7072	36.0598	44.3032	99.35	67.0518	90.88	98.648	38.7072