

# THE LONDON RESORT

## The London Resort Development Consent Order

BC080001

### Environmental Statement Volume 2: Appendices

#### Appendix 17.3 – Surface Water Quality Testing

Document reference: 6.2.17.3

Revision: 00

December 2020

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Regulation 5(2)(a)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

Regulation 12(1)

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## Technical Note

Project London Resort – Appendix 17.3  
Subject Surface Water Quality Testing  
Project no 0042936  
Date 18 December 2020

Revision	Description	Issued by	Date	Approved (signature)
00	ES Appendix 17.3	GP	03/11/20	CC

### 1 Introduction

Surface water quality testing has been requested by the Environment Agency for the London Resort Kent Project Site in order to inform the ecological mitigations and the contamination remediation strategy.

Water quality testing is being undertaken using manual sample collection and laboratory analysis. The monitoring locations and the analytical parameters have been agreed with the Environment Agency. Water quality testing will be undertaken on a monthly basis. The testing will continue on a monthly basis until October 2021 to provide a full year of information which will be made available to the Environment Agency during this period and the design may be modified to reflect this. A broad range of parameters will be tested for initially, and the testing suite refined over time. For surface water sampling locations, sediment sampling is also being undertaken.

This sampling will be used to generate a robust baseline for the site surface water conditions, which will then be used to monitor against during construction and eventually operation. The project baseline will also take into account historic monitoring undertaken on site by CMS Enviro which includes monitoring of water quality within the River Ebbsfleet, the surface water ponds and drainage channels in the centre of the Peninsula.

### 2 Sampling Locations

Locations for collection of surface water samples are as per the figures below.





Figure 1 Surface Water Sampling Locations SW001 – SW003 – Black Duck Marsh



Figure 2 Surface Water Sampling Locations SW004 – SW007 – Central Peninsula





Figure 3 Surface Water Sampling Locations SW007 – SW011 – Botany Marsh



Figure 4 Surface Water Sampling Locations SW013 – Bamber Pond





Figure 5 Surface Water Sampling Locations SW014 – SW016 – River Ebbsfleet

The majority of locations have been successfully sampled during the first round of data collection and the results analysed. The following locations have not been able to be sampled, a brief explanation as to why sampling was not possible is noted alongside the location, these are primarily due to health and safety issues with access.

- SW001 – No safe access, overgrown with reeds.
- SW003 – Dry, no water available to sample.
- SW006 – No safe access, overgrown with reeds.
- SW008 – No safe access, water body not visible, brambles.
- SW010 - No safe access, overgrown.
- SW011 - No safe access, deep water overgrown with reeds.

### 3 Implications for The London Resort

No conclusions have been drawn from the water quality sampling undertaken at this time. The project will continue to undertake sampling on a monthly basis in order to generate a robust baseline for the site surface water conditions, split by geographical area, which will then be used to monitor against during construction and eventually operation. The project baseline will also take into account historic monitoring undertaken on site by CMS Enviro which includes monitoring of water quality within the River Ebbsfleet, the surface water ponds and drainage channels in the centre of the Peninsula. This work will inform the evolution of the contaminated land management strategy.

### 4 Round 1 Sampling Results

Analytical Report Number: 20-36002

Project / Site name: The London Resort

Sediments

River Ebbsfleet

River Ebbsfleet

<b>Lab Sample Number</b>				1653278	1653279
<b>Sample Reference</b>				SW014	SW016
<b>Sample Number</b>				None Supplied	None Supplied
<b>Depth (m)</b>				None Supplied	None Supplied
<b>Date Sampled</b>				13/10/2020	13/10/2020
<b>Time Taken</b>				None Supplied	None Supplied
<b>Analytical Parameter (Soil Analysis)</b>	<b>Units</b>	<b>Limit of detection</b>	<b>Accreditation Status</b>		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	16	20
Total mass of sample received	kg	0.001	NONE	1.6	1.5

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected
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**General Inorganics**

pH - Automated	pH Units	N/A	MCERTS	10.5	8.9
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1
Organic Matter	%	0.1	MCERTS	1.5	2.4

**Speciated PAHs**

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.24	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.49	0.27
Fluorene	mg/kg	0.05	MCERTS	0.73	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	10	1.1
Anthracene	mg/kg	0.05	MCERTS	2.7	0.24
Fluoranthene	mg/kg	0.05	MCERTS	13	1.4
Pyrene	mg/kg	0.05	MCERTS	10	1.2
Benzo(a)anthracene	mg/kg	0.05	MCERTS	5.9	0.76
Chrysene	mg/kg	0.05	MCERTS	4.3	0.57
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	5	0.77
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	2.1	0.37
Benzo(a)pyrene	mg/kg	0.05	MCERTS	3.8	0.6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.9	0.34
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	2.1	0.41

**Total PAH**

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	61.9	8.05
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**Heavy Metals / Metalloids**

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	7.7
Barium (aqua regia extractable)	mg/kg	1	MCERTS	90	96
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.59	0.46
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.4
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	21	110
Copper (aqua regia extractable)	mg/kg	1	MCERTS	27	120
Lead (aqua regia extractable)	mg/kg	1	MCERTS	82	43
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16	34
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	33	30
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	83	290

**Monoaromatics & Oxygenates**

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0

**Petroleum Hydrocarbons**



Analytical Report Number: 20-36002

Project / Site name: The London Resort

Sediments

River Ebbsfleet

River Ebbsfleet

Lab Sample Number				1653278	1653279
Sample Reference				SW014	SW016
Sample Number				None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied
Date Sampled				13/10/2020	13/10/2020
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	15	170
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	15	180

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	11	2.6
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	73	10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	83	100
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	170	120

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 20-36994  
 Project / Site name: The London Resort

Black Duck Marsh Central Peninsula Central Peninsula Botany Marsh

<b>Lab Sample Number</b>		1659029	1659030	1659031	1659032
<b>Sample Reference</b>		SW002	SW004	SW005	SW007
<b>Sample Number</b>		SW002	SW004	SW005	SW007
<b>Depth (m)</b>		None Supplied	None Supplied	None Supplied	None Supplied
<b>Date Sampled</b>		20/10/2020	20/10/2020	20/10/2020	20/10/2020
<b>Time Taken</b>		None Supplied	None Supplied	None Supplied	None Supplied
<b>Analytical Parameter (Water Analysis)</b>	<b>Units</b>	<b>Limit of detection</b>	<b>Accreditation Status</b>		

**General Inorganics**

pH	pH Units	N/A	ISO 17025	8	10.1	8.1	7.4
Electrical Conductivity at 20 °C	µS/cm	10	ISO 17025	2000	5800	1400	2100
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10
Sulphate as SO4	mg/l	0.045	ISO 17025	122	969	251	517
Chloride	mg/l	0.15	ISO 17025	540	880	230	340
Ammonia as NH3	µg/l	15	ISO 17025	1000	220	120	170
Ammonium as NH4	µg/l	15	ISO 17025	1100	230	130	180
Total Nitrogen (Kjeldahl)	mg/l	0.1	NONE	1.7	3.8	0.9	1.1
Nitrate as N	mg/l	0.01	ISO 17025	0.09	0.1	4.63	0.09
Nitrate as NO3	mg/l	0.05	ISO 17025	0.39	0.44	20.5	0.39
Nitrite as N	µg/l	1	ISO 17025	8.8	45	45	8.1
Nitrite as NO2	µg/l	5	ISO 17025	29	150	150	27
BOD (Biochemical Oxygen Demand) (Total) - PL	mg/l	1	ISO 17025	< 1.0	7.2	2.5	3.8
Total Dissolved Solids (Gravimetric)	mg/l	4	ISO 17025	1100	3300	820	1100
Hardness - Total	mgCaCO3/l	1	ISO 17025	664	50.9	414	715
Dissolved Oxygen	mg/l	1	NONE	4.6	1.4	5.5	< 1.0

**Speciated PAHs**

Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01

**Total PAH**

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16	< 0.16
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Analytical Report Number: 20-36994  
 Project / Site name: The London Resort

				Black Duck Marsh	Central Peninsula	Central Peninsula	Botany Marsh
<b>Lab Sample Number</b>				1659029	1659030	1659031	1659032
<b>Sample Reference</b>				SW002	SW004	SW005	SW007
<b>Sample Number</b>				SW002	SW004	SW005	SW007
<b>Depth (m)</b>				None Supplied	None Supplied	None Supplied	None Supplied
<b>Date Sampled</b>				20/10/2020	20/10/2020	20/10/2020	20/10/2020
<b>Time Taken</b>				None Supplied	None Supplied	None Supplied	None Supplied
<b>Analytical Parameter (Water Analysis)</b>	<b>Units</b>	<b>Limit of detection</b>	<b>Accreditation Status</b>				
<b>Heavy Metals / Metalloids</b>							
Boron (dissolved)	µg/l	10	ISO 17025	200	83	120	180
Calcium (dissolved)	mg/l	0.012	ISO 17025	170	12	140	230
Magnesium (dissolved)	mg/l	0.005	ISO 17025	59	5.1	15	35
Phosphorus (total)	µg/l	20	ISO 17025	240	57	840	2300
Arsenic (dissolved)	µg/l	0.15	ISO 17025	7.99	52.5	17	6.4
Barium (dissolved)	µg/l	0.06	ISO 17025	57	7.2	38	89
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1	< 0.1	< 0.1	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02	0.15	0.03	0.06
Chromium (dissolved)	µg/l	0.2	ISO 17025	8.3	9.1	6.7	7
Copper (dissolved)	µg/l	0.5	ISO 17025	4.5	8.7	7.3	4.4
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2	0.4	< 0.2	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	7.4	23	5.7	9.3
Selenium (dissolved)	µg/l	0.6	ISO 17025	5.7	31	4.7	7.5
Vanadium (dissolved)	µg/l	0.2	ISO 17025	3.3	120	7.1	11
Zinc (dissolved)	µg/l	0.5	ISO 17025	28	3.4	9.7	5.3
<b>Monoaromatics &amp; Oxygenates</b>							
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
<b>Petroleum Hydrocarbons</b>							
TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 20-36994  
 Project / Site name: The London Resort

	Botany Marsh	Central Peninsula	River Ebbsfleet	River Ebbsfleet
Lab Sample Number	1659033	1659034	1659035	1659036
Sample Reference	SW009	SW012	SW014	SW016
Sample Number	SW009	SW012	SW014	SW016
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	20/10/2020	20/10/2020	20/10/2020	20/10/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status	

#### General Inorganics

	Units	Limit of detection	Accreditation Status	Botany Marsh	Central Peninsula	River Ebbsfleet	River Ebbsfleet
pH	pH Units	N/A	ISO 17025	7.9	8	7.8	7.9
Electrical Conductivity at 20 °C	µS/cm	10	ISO 17025	3200	2200	550	630
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10
Sulphate as SO4	mg/l	0.045	ISO 17025	393	544	46	45.8
Chloride	mg/l	0.15	ISO 17025	1200	310	36	36
Ammonia as NH3	µg/l	15	ISO 17025	1100	2400	140	< 15
Ammonium as NH4	µg/l	15	ISO 17025	1100	2600	150	< 15
Total Nitrogen (Kjeldahl)	mg/l	0.1	NONE	1.3	2.2	0.9	0.2
Nitrate as N	mg/l	0.01	ISO 17025	0.35	0.99	8.31	9.98
Nitrate as NO3	mg/l	0.05	ISO 17025	1.57	4.36	36.8	44.2
Nitrite as N	µg/l	1	ISO 17025	140	150	70	7.5
Nitrite as NO2	µg/l	5	ISO 17025	450	500	230	25
BOD (Biochemical Oxygen Demand) (Total) - PL	mg/l	1	ISO 17025	5.2	22	5.7	1.3
Total Dissolved Solids (Gravimetric)	mg/l	4	ISO 17025	1900	1300	250	480
Hardness - Total	mgCaCO3/l	1	ISO 17025	913	366	329	404
Dissolved Oxygen	mg/l	1	NONE	5	1.4	8.1	10

#### Speciated PAHs

	Units	Limit of detection	Accreditation Status	Botany Marsh	Central Peninsula	River Ebbsfleet	River Ebbsfleet
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01

#### Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16	< 0.16
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Analytical Report Number: 20-36994  
 Project / Site name: The London Resort

	Botany Marsh	Central Peninsula	River Ebbsfleet	River Ebbsfleet
Lab Sample Number	1659033	1659034	1659035	1659036
Sample Reference	SW009	SW012	SW014	SW016
Sample Number	SW009	SW012	SW014	SW016
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	20/10/2020	20/10/2020	20/10/2020	20/10/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status	

**Heavy Metals / Metalloids**

Boron (dissolved)	µg/l	10	ISO 17025	1400	140	22	35
Calcium (dissolved)	mg/l	0.012	ISO 17025	220	130	120	150
Magnesium (dissolved)	mg/l	0.005	ISO 17025	86	12	5.4	5.4

Phosphorus (total)	µg/l	20	ISO 17025	41	630	27	75
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Arsenic (dissolved)	µg/l	0.15	ISO 17025	21.4	27.9	2.09	1.84
Barium (dissolved)	µg/l	0.06	ISO 17025	140	51	34	36
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1	0.1	< 0.1	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.53	0.03	< 0.02	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	9.1	7.1	4.7	6.5
Copper (dissolved)	µg/l	0.5	ISO 17025	15	3.7	3.3	3.3
Lead (dissolved)	µg/l	0.2	ISO 17025	3.9	0.3	< 0.2	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	0.45	< 0.05	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	14	8.3	5.5	7
Selenium (dissolved)	µg/l	0.6	ISO 17025	8.6	8.5	2.6	2.7
Vanadium (dissolved)	µg/l	0.2	ISO 17025	7.1	5.1	6.8	6.6
Zinc (dissolved)	µg/l	0.5	ISO 17025	88	8.4	5.2	8.5

**Monoaromatics & Oxygenates**

Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0

**Petroleum Hydrocarbons**

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample