

Wednesday 15th August 2019

To: [REDACTED]
Site Engineer, LendLease
New Tweed Valley Hospital Project

Re: Surface Water Quality Monitoring Results & Report for the Tweed Valley Hospital Project
Reporting period: 11 June 2019 to 9 July 2019

1.0 INTRODUCTION

Ecoteam are engaged to undertake monthly and event-based surface water monitoring on behalf of Lendlease Building as part of the early works for the Tweed Valley Hospital Project. This report presents results from the first round of monthly sampling. No controlled or uncontrolled releases from the Sediment Basins occurred during the reporting period.

2.0 PROJECT AIMS AND SAMPLING OBJECTIVES

The surface water monitoring objectives for the Site are to detect changes during construction in receiving water quality resulting from the Project, with stormwater discharges potentially containing increased sediment loads, nutrients, total and dissolved metals, hydrocarbons or other contaminants such as pesticides. Baseline water quality data has already been collected over three sampling events performed on the 19 & 26 November and 19 December 2018 to record water quality conditions under the existing land use (Lendlease Building, 2019).

3.0 WEATHER CONDITIONS

Total rainfall in the reporting period was 116.6 mm with the highest rainfall occurring on 25th and 26th of June, with 28.0 mm and 26.8 mm respectively.

4.0 SAMPLING LOCATIONS

Samples were collected from all five monthly sampling sites (001 – 005). Control samples were also collected and analysed (013 – 015). Sample codes and corresponding sampling locations are shown in **Table 1** and **Figure 1**.

Table 1. Monthly sampling sites, control samples and sample codes.

Sample Codes	Sampling Site Name	Short Name
001	Upstream Creek (West)	USW
002	Upstream Creek (North West)	USNW
003	Downstream Creek (East)	DSE
004	Dam	Dam
005	Dam Drain	DD
013	Trip Blank	Trip
014	Field Blank	Field
015	Field Duplicate	Duplicate

SITE: Tweed Valley Hospital Project - Kingscliff	Lendlease Building	SMC009	29/7/19
	CLIENT.	PROJECT NO.	DATE.
TITLE: Monthly Surface Water Sampling Sites	1:8000	SS	LB
	SCALE AT A4.	DRAWN.	CHECKED.
			A
			REVISION.



Figure 1. Map of monthly sampling sites (Source: Google Earth)

5.0 SAMPLING METHODOLOGY

Sampling was undertaken by Ecoteam Senior Environmental Scientist, Stefanie Stanley, on Tuesday 9th July. In situ physico-chemical measurements were collected using a YSI ProPlus multi-parameter probe and Oil and Grease was visually assessed. The calibration certificate for the YSI ProPlus is included as **Appendix A**. Water quality samples were collected using an extension pole.

Samples were filtered and preserved on site where necessary, stored on ice and couriered over night to NATA accredited EnviroLab in Sydney. A Trip Blank was sent from EnviroLab and transported to all sites and sent back with the field samples. A Field Blank was collected at Site 001 and filtered and preserved as required. A Duplicate Sample was collected at Site 002 and filtered and preserved as required. A full list of analytes for the project are included in **Appendix B**.

6.0 ASSESSMENT CRITERIA

Water quality results were compared against the Water Quality Objectives (WQO) in the following guidelines.

- *NSW Water Quality Objectives for the Tweed River Catchment for Aquatic Ecosystems* (Tweed 2006) - Trigger criteria for estuaries.
- *Australian and New Zealand guidelines for fresh and marine water quality (ANZECC 2000)* – Trigger values for freshwater (level of protection 95% species).

7.0 RESULTS

7.1 Physico-chemical Results

In situ physico-chemical sampling results with comparison to WQOs are shown in **Table 2**. There were no odours or surface sheens visible at any site to indicate presence of Oil and Grease.

Table 2. Results of physico-chemical parameters collected in situ at monthly sampling sites and in the Field Blank.

		Water Quality Objectives (WQOs)		Sample Codes					
Analyte	Units	Fresh Water	Estuary	USW 001	USNW 002	DSE 003	Dam 004	DD 005	Blank 014
pH		6.5-8.5	7.0-8.5	6.83	6.73	7.55	6.8	6.39	7.59
Turbidity	NTU	6.0-50	0.5-10	-7.78	-14.4	-22.06	6056	-22.64	-23.14
Electrical Conductivity (EC)	µS/cm	125-2200	125-2200	1518	945	300	534	233.4	1.4
Dissolved Oxygen (DO)	% Saturation	85-110	80-110	18.7	34.6	50.4	27.3	11.1	107.5
Temperature	°C	N/A	N/A	15.9	16.9	17.0	15.9	16	18.6
Oxidation Reduction Potential (ORP)		N/A	N/A	96.8	131.8	217	19.4	21.9	155.9

When compared to the WQOs for Freshwater and Estuaries:

- pH was outside the range for both criteria at Site 005 in the Dam Drain. Some iron flocculation was noticed during the site visit, indicating potential presence of groundwater interaction. pH was also outside the range at Site 005 in background sampling.
- Turbidity was outside the range at all sites, including the Field Blank. Negative results indicate a potential error with the Turbidity metre. The calibration certificate is in date. This will be investigated prior to the next round of sampling.
- Dissolved oxygen (DO) concentrations at all sampling sites were outside the range for both criteria. DO concentrations were within the range in the Field Blank. DO was outside the range at comparison sites in background sampling.

7.2 Laboratory Results

Ammonia, Chlorophyll-a, FRP, NO_x, Total Nitrogen, Total Phosphorus, Aluminium, Cobalt, Copper and Zinc were above the WQOs. Only the criteria exceeding the WQOs are shown in **Table 3**.

The Chain of Custody Form is included as **Appendix C**. A full copy of the laboratory results is included as **Appendix D**. A summary of all lab results with comparison to WQOs is included as **Appendix E**.

Table 3. Parameters in exceedance of the trigger criteria for sampling conducted 9th July 2019.

Analyte	Unit	WQOs Trigger Criteria		Sample Codes							
		Fresh Water	Estuary	USW 001	USN W 002	DSE 003	Dam 004	DD 005	Field 013	Trip 014	Duplicate 015
Nutrients											
Ammonia	µg/L	20	15	43	180	10	310	340	<5	<5	170
Chlorophyll-a	µg/L	5	4	8	<5	10	30	10	<5	<5	10
Filterable Reactive Phosphorus (FRP)	µg/L	20	5	40	19	30	37	14	<5	<5	18
Oxides of Nitrogen (NO _x)	µg/L	40	15	20	200	40	100	70	<5	<5	200
Total Nitrogen	µg/L	350	300	1300	1200	800	900	900	<100	<100	1200
Total Phosphorus	µg/L	25	30	300	50	50	300	80	<50	<50	<50
Metals – All metals are Dissolved Metals											
Aluminium	µg/L	55	N/A	40	80	230	<10	10	<10	<10	70
Cobalt	µg/L	N/A	1.0	<1	2	<1	<1	<1	<1	<1	2
Copper	µg/L	1.4	1.3	<1	3	<1	<1	<1	<1	<1	<1
Zinc	µg/L	8.0	15	3	9	10	2	4	<1	3	9

When compared to the WQOs for Freshwater and Estuaries:

- Ammonia was above the WQOs for both criteria at all sampling locations except for Site 003, Downstream Creek (East). Ammonia was above the WQOs at comparison sites in background sampling.
- Chlorophyll-a was above the WQOs for both criteria at all sampling locations except for Site 002 (Upstream Creek North West), though the Duplicate Sample 015 was above WQOs. Chlorophyll-a results were varied across comparison sites in background sampling.
- FRP was above the WQOs for both criteria at all sampling locations except for sites 002 and 005 which were within freshwater criteria. FRP results varied across comparison sites in background sampling though were lowest at Site 005 (Dam Drain).
- NOx was above the WQOs for both criteria at all sampling locations except for Site 001 which was within freshwater criteria. NOx was significantly higher at Site 005 (Dam Drain) in baseline sampling and similar to baseline at all other comparison sites.
- Total Nitrogen was above the WQOs for both criteria at all sampling locations. Total Nitrogen was above the WQOs at comparison sites in baseline sampling.
- Total Phosphorus was above the WQOs for both criteria at all sampling locations. Total Phosphorus was above the WQOs at comparison sites in baseline sampling.
- Aluminium (dissolved) was above the freshwater criteria at Sites 002 (Upstream Creek East) and 003 (Downstream Creek West). Site 002 was not sampled in baseline sampling. Site 003 was above the WQOs in baseline sampling.
- Cobalt (dissolved) was above the freshwater criteria at Site 002 (Upstream Creek East). Site 002 was not sampled in baseline sampling.
- Copper (dissolved) was above the freshwater criteria at Site 002 (Upstream Creek East). Site 002 was not sampled in baseline sampling.
- Zinc (dissolved) was above the freshwater criteria at Sites 002 (Upstream Creek East) and 003 (Downstream Creek West). Site 002 was not sampled in baseline sampling. Site 003 was above the WQOs in baseline sampling.
- Lindane Organochlorine Pesticide (OCP) and Demeton Organophosphorus Pesticide (OPP) pesticide were not analysed by the laboratory and will be included in future sampling rounds. All other OCP and OCP results were below detectable limits.

8.0 Quality Assurance and Quality Control

A Trip Blank and Field Blank sample were analysed.

- All results for the Field Blank and Trip Blank were well within WQOs.
- Parameters analysed in the Trip Blank (013) were below laboratory detection limits.
- Parameters analysed in the Field Blank show traces of Calcium and Zinc though well below guideline limits for WQOs.
- The duplicate sample (015) was collected at Site 002 and is within acceptable limits for all analytes except for Chlorophyll-a. This variation may be due to vegetative matter in the sample.

The laboratory QA/QC is included in the results in **Appendix D**. The laboratory QA/QC report notes the following.

- 8 HM in water - Dissolved - Percent recovery is not possible to report due to the high concentration of the element/s in the sample/s. However, an acceptable recovery was obtained for the LCS.
- Miscellaneous Organics - Water - The recovery of LCS and matrix spike cannot be reported due to the fact they are not in the list of analytes requested. However, the non-reported analytes within the LCS and matrix spike had acceptable recoveries.

Based on the above, the results are considered acceptable for the purposes of the project.

9.0 Summary of Recommendations

- Total Nitrogen, Total Phosphorus and Ammonia were above the WQOs in the July sampling round, and results are consistent with baseline sampling.
- Aluminium (dissolved) and Zinc (dissolved) were above the WQOs in the July sampling round and results are consistent with baseline sampling.
- Dissolved metals - Aluminium, Zinc, Cobalt and Copper - were above the WQOs in the July sampling round Site 002 (Upstream Creek North West), however, Site 002 was not sampled during baseline monitoring.
- Turbidity results will be investigated with the equipment hire company to ensure the Turbidity Metre is working correctly prior to next sampling round (scheduled for 6 August 2019).
- Laboratory analyses for Lindane and Demeton will be undertaken as per full list of analytes.
- Sites 001 and 002 were not sampled during baseline monitoring in November 2018 and baseline data should be established for these during subsequent sampling round.
- We propose to adopt baseline values for all sites based on monitoring conducted last year (Sites 003, 004 and 005) and subsequent monthly monitoring by Ecoteam (Sites 001 and 002). Data collected by Ecoteam during the first three sampling rounds can be used for comparison to future results at Sites 001 and 002.
- As there are two sets of assessment criteria, we recommend defining each site as either Freshwater or Estuary to enable easier comparison and reporting of results.

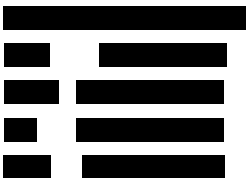
If you require additional information, please do not hesitate to ask.

Kind regards,



Stefanie Stanley.

Senior Environmental Scientist & Business Manager



Appendix A. Calibration certificate for YSI ProPlus

Equipment Calibration Form YSI ProDSS



Enqip #: 9479
Company: Ecoteam
Consultant: Stefanie Stanley
PO #: SMC009
Certificate #: 13170

INSTRUMENT IDENTIFICATION

Model Number: 626870-1
Serial Number: 18M103035
Instrument Type: YSI ProDSS

INSPECTION RECORD

Batteries Checked: PASS **Date & Time:** PASS
Electrodes Cleaned/Checked: PASS **Temperature:** PASS

CALIBRATION DETAILS

Sensor	Cal Solution	Value	Reading
pH	Buffer 4.00	4.00 pH	4.00 pH
	Buffer 7.00	7.00 pH	7.00 pH
Redox	Zobell Solution	241.0 mV @ 15 °C	241.0 mV
O ₂	Na ₂ SO _{3(aq)}	0 %	0.0 %
	Air	100.0 %	100.0 %
Conductivity	Standard Conductivity	2.76 mS/cm	2.76 mS/cm
Turbidity	DI Water	0 FNU	0.00 FNU
	Turbidity Standard	124 FNU	124 FNU

Calibration Successful: YES

Calibrated By: Mitch O'Grady

Test Date: 5/07/2019



116 Thistlethwaite St, South Melbourne 3205
 P 1300 218 987
 E info@enqip.com.au | W www.enqip.com.au

Appendix B. Full List of Sampling Analytes

3.7 Proposed Surface Water Quality Sampling Parameters

A summary of the proposed sampling analytes is provided below:

- | | |
|---|---|
| <p>Field</p> <ul style="list-style-type: none"> • pH • Turbidity • Electrical Conductivity (EC) • Dissolved Oxygen (DO) • Temperature • Oxidation Reduction Potential (ORP) • Oil and grease <p>Laboratory</p> <ul style="list-style-type: none"> • Total Suspended Solids (TSS) • Total Dissolved Solids (TDS) • Major Cations & Hardness • Ammonia • Chlorophyll-a • Filterable Reactive Phosphorus • Nitrate • Oxides of Nitrogen • Total Nitrogen • Total Phosphorus • Aluminium (pH > 6.5) filtered • Arsenic (filtered) • Boron (filtered) • Cadmium (filtered) • Chromium (filtered) • Copper (filtered) • Cobalt (filtered) • Lead (filtered) • Manganese (filtered) • Mercury (filtered) | <ul style="list-style-type: none"> • Nickel (filtered) • Selenium (filtered) • Silver (filtered) • Zinc (filtered) • Benzene • Toluene • Ethylbenzene • Xylene - Total • Naphthalene • Total Recoverable Hydrocarbons (TRH) • Organochlorine Pesticides (OCP) <ul style="list-style-type: none"> ○ 4,4'-DDE ○ 4,4'-DDT ○ Aldrin ○ g-BHC (Lindane) ○ Chlordane ○ Dieldrin ○ Endosulfan ○ Endrin ○ Heptachlor ○ Toxaphene • Organophosphorus Pesticides (OPP) <ul style="list-style-type: none"> ○ Azinphos-methyl ○ Chlorpyrifos ○ Demeton-S ○ Diazinon ○ Dimethoate ○ Fenitrothion ○ Malathion |
|---|---|

If a sample returns detectable concentrations of the analytes presented in Table 1, additional analyses may be required to enable comparison against additional trigger criteria or trace potential sources of contaminants. It is cost prohibitive to analyse these parameters unless required.


Table 1 Additional Analysis Requirements

Analyte	Additional Analysis
Total Recoverable Hydrocarbons	TRH Silica-gel Clean-up
Arsenic (filtered)	Arsenic (III) (filtered) Arsenic (V) (filtered)
Chromium (filtered)	Chromium (CrVI) (filtered)



Appendix C. Chain of Custody Form

[Copyright and Confidential]



ENVIROLAB GROUP - National phone number 1300 424 344

CHAIN OF CUSTODY - Client

NOTE HOLD TIMES

Client: Ecoteam	Client Project Name / Number / Site etc (ie report title): SMC009 - Tweed Valley Hospital
Contact Person: Stefanie Stanley	PO No.:
Project Mgr: Stefanie Stanley	EnviroLab Quote No.: 19SY228
Sampler: <i>Stefanie Stanley</i>	Date results required:
Address: 13 Ewing Street Lismore NSW 2480	Or choose: standard / same day / 1 day / 2 day / 3 day <small>Note: Inform lab in advance if urgent turnaround is required - surcharges apply</small>
Phone: 02 6621 5123 Mob: 0428346622	Additional report format: esdat / equis /
Email: <i>Thankyou.</i> stefanie@ecoteam.com.au	Lab Comments: Metals: :Al, As, B, Cd, Cr, Cu, Co, Pb, Mn, Hg, Ni, Se, Ag, Z. Cations: Na/K/Ca/Mg. Please hold Cr6 and AsIII/V until initial dissolved metals results are back.

Sydney Lab - EnviroLab Services 12 Ashley St, Chatswood, NSW 2067 Ph: 02 9910 6200 / sydney@envirolab.com.au	Perth Lab - MPL Laboratories 16-18 Hayden Crt, Myaree, WA 6154 Ph: 08 9317 2505 / lab@mpl.com.au
Melbourne Lab - EnviroLab Services 25 Research Drive, Croydon South, VIC 3136 Ph: 03 9763 2500 / melbourne@envirolab.com.au	Adelaide Office - EnviroLab Services 7a The Parade, Norwood, SA 5067 Ph: 08 7087 6800 / adelaide@envirolab.com.au
Brisbane Office - EnviroLab Services 20a, 10-20 Depot St, Banyo, QLD 4014 Ph: 07 3266 9532 / brisbane@envirolab.com.au	Darwin Office - EnviroLab Services Unit 7, 17 Willes Rd, Berrimah, NT 0820

Sample information					Tests Required												Comments			
EnviroLab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	TRH/BTEXN	Dissolved Metals	OC/OP + toluene	TSS	TDS	Cations + Hardness	Ammonia	Chlorophyll-a	Phosphates (FRP)	Nitrate	Nox	Total N	Total P	Cr6+ - HOLD	AsIII & V - HOLD	Provide as much information about the sample as you can
1	✓ 001 - USW	300 mm	9/7/19	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
2	✓ 002 - USNW	150 mm	"	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
3	✓ 003 - DSE	300 mm	"	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
4	✓ 004 - Dam	300 mm	"	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
5	✓ 005 - Dam Drain	150 mm	"	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
6	013 ✓	300 mm	"	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
7	014 ✓	300 mm	"	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
8	015 ✓	300 mm	"	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis

Relinquished by (Company): Ecoteam	Received by (Company): <i>ELS Syd.</i>	Lab Use Only	
Print Name: <i>Stefanie Stanley</i>	Print Name: <i>S. Bolton</i>	Job number: <i>221410</i>	Cooling: <i>(Ice)</i> / Ice pack / None
Date & Time: <i>18/10/19 2:30pm</i>	Date & Time: <i>11/07/19 9:41</i>	Temperature: <i>7.1</i>	Security seal: <i>(Intact)</i> / Broken / None
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	TAT Req - SAME day / 1 / 2 / 3 / 4 / (STD)	

Appendix D. Full Laboratory Results

Appendix E. Summary of Lab Results compared to WQOs

		Water Quality Objectives (WQOs)		Sample Codes							
Analyte	Unit	Fresh Water	Estuary	001	002	003	004	005	013	014	015
Total Suspended Solids (TSS)	mg/L	N/A	N/A	99	<5	<5	45	24	<5	<5	6
Total Dissolved Solids (TDS)	mg/L	N/A	N/A	880	540	190	270	120	<5	<5	540
Major Cations (dissolved) & Hardness											
Sodium	mg/L	NA	NA	170	88	30	54	20	<0.5	<0.5	87
Potassium	mg/L	NA	NA	10	5.4	1.8	8.4	2.6	<0.5	<0.5	5.3
Calcium	mg/L	NA	NA	75	53	12	22	6.3	<0.5	0.5	53
Magnesium	mg/L	NA	NA	38	24	6.2	12	6.2	<0.5	<0.5	24
Hardness mgCaCO ₃ /L		NA	NA	340	230	56	100	41	<3	<3	230
Nutrients											
Ammonia	µg/L	20	15	43	180	10	310	340	<5	<5	170
Chlorophyll-a	µg/L	5	4	8	<5	10	30	10	<5	<5	10
Filterable Reactive Phosphorus	µg/L	20	5	40	19	30	37	14	<5	<5	18
Nitrate	µg/L	N/A	N/A	10	230	40	130	64	<5	<5	230
Oxides of Nitrogen	µg/L	40	15	20	200	40	100	70	<5	<5	200
Total Nitrogen	µg/L	350	300	1300	1200	800	900	900	<100	<100	1200
Total Phosphorus	µg/L	25	30	300	50	50	300	80	<50	<50	<50
Metals – All metals are Dissolved Metals											
Aluminium	µg/L	55	N/A	40	80	230	<10	10	<10	<10	70
Arsenic	µg/L	13	N/A	<1	<1	<1	<1	<1	<1	<1	<1
Boron	µg/L	370	N/A	200	100	30	100	40	<20	<20	100
Cadmium	µg/L	0.2	5.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium	µg/L	1.0	4.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt	µg/L	N/A	1.0	<1	2	<1	<1	<1	<1	<1	2
Copper	µg/L	1.4	1.3	<1	3	<1	<1	<1	<1	<1	<1
Lead	µg/L	3.4	4.4	<1	<1	<1	<1	<1	<1	<1	<1
Manganese	µg/L	1,900	N/A	310	210	23	960	97	<5	<5	210
Mercury	µg/L	0.6	0.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	µg/L	11	70	1	5	1	<1	<1	<1	<1	2
Selenium	µg/L	11	N/A	<1	<1	<1	<1	<1	<1	<1	<1
Silver	µg/L	0.05	1.4	<1	<1	<1	<1	<1	<1	<1	<1
Zinc	µg/L	8.0	15	3	9	10	2	4	<1	3	9
Hydrocarbons											
Benzene	µg/L	950	700	<1	<1	<1	<1	<1	<1	<1	<1

		Water Quality Objectives (WQOs)		Sample Codes								
Analyte	Unit	Fresh Water	Estuary	001	002	003	004	005	013	014	015	
Toluene	µg/L	N/A	N/A	<1	<1	<1	<1	<1	<1	<1	<1	
Ethylbenzene	µg/L	N/A	N/A	<1	<1	<1	<1	<1	<1	<1	<1	
Xylene	µg/L	550	N/A	<1	<1	<1	<1	<1	<1	<1	<1	
Naphthalene	µg/L	16	70	<1	<1	<1	<1	<1	<1	<1	<1	
Total Recoverable Hydrocarbons (TRH)	µg/L	N/A	N/A	<50	<50	<50	<50	<50	<50	<50	<50	
Organochlorine Pesticides (OCP)												
4,4'-DDE	µg/L	N/A	N/A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
4,4'-DDT	µg/L	0.01	N/A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Aldrin	µg/L	N/A	N/A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
g-BHC Lindane	µg/L	0.2	N/A	-	-	-	-	-	-	-	-	
Chlordane	µg/L	0.08	N/A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Dieldrin	µg/L	N/A	N/A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Endosulfan	µg/L	0.2	0.01	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Endrin	µg/L	0.008	0.02	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Heptachlor	µg/L	0.09	N/A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Toxaphene	µg/L	0.2	N/A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Organophosphorus Pesticides (OPP)												
Azinphos-methyl	µg/L	0.02	N/A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Chlorpyrifos	µg/L	0.01	0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Demeton-S	µg/L	N/A	N/A	-	-	-	-	-	-	-	-	
Diazinon	µg/L	0.01	N/A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Dimethoate	µg/L	0.15	N/A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Fenitrothion	µg/L	0.2	N/A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Malathion	µg/L	0.05	N/A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	