Final
Dry Weather Water Quality Sampling Activity Report

Oxford Retention Basin Sediment and Water Quality Characterization Study

Marina del Rey
Los Angeles, California

Prepared For:

County of Los Angeles Department of Public Works
Watershed Management Division
900 South Fremont Avenue
Alhambra, California 91803

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ACRONYMS AND ABBREVIATIONS

CAM	California Assessment Manual
COC	chain-of-custody
DOC	dissolved organic carbon
FAA	Federal Aviation Administration
GPS	global positioning system
HSP	Health and Safety Plan
ID	identification
MdRH	Marina del Rey Harbor
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyl
pH	hydrogen ion concentration
QA	quality assurance
SAP	Sampling and Analysis Plan
SM	Standard Methods
SVOCs	semivolatile organic carbons
TDS	total dissolved solids
TMDL	Total Maximum Daily Loads
TOC	total organic carbon
TPH	total petroleum hydrocarbon
TSS	total suspended solids
USCS	Unified Soil Classification System
USEPA	U.S. Environmental Protection Agency
WAAS	Wide Area Augmentation System

1.0 INTRODUCTION

1.1 Sampling and Testing Objectives

The Oxford Retention Basin serves primarily as a flood control facility and is an integral part of the Marina del Rey local drainage system. The purpose of the basin is to retain urban and stormwater runoff until it can be safely discharged into Basin E of the Marina del Rey Harbor (MdRH). During storms, contaminants associated with development and street runoff are carried into Oxford Retention Basin and then into Basin E through two tide gates. The quality of the discharged water is speculated to be poor, mainly due to high recorded concentrations of bacteria and other pollutants of concern.

The objective of this project task was to utilize an efficient and scientifically defensible approach to characterize water quality during dry weather in both Oxford Retention Basin and the adjacent Basin E. Specifically, the water quality study aimed to complete the following:

- Understand the extent of chemical and bacterial contamination in the water column within Oxford Retention Basin.
- Characterize water quality conditions in Oxford Retention Basin in relation to the Bacteria and Toxics Total Maximum Daily Loads (TMDLs) compliance requirements at Basin E within MdRH.
- Determine the relationship among contaminants found in the Oxford Retention Basin and their potential impacts to Basin E in MdRH.
- Satisfy the necessary requirements to evaluate the disposal options for sediment removal.

To attain these objectives, water from the Oxford Retention Basin, Basin E, and the Boone Olive Pump Station were sampled and analyzed (Figure 1). Water quality was sampled during one dry weather event and tested for chemical and physical parameters as well as bacterial content. Analyses for water samples included hydrogen ion concentration (pH), total organic carbon (TOC), dissolved organic carbon (DOC), hardness, total dissolved solids (TDS), total suspended solids (TSS), nutrients, indicator bacteria, California Assessment Manual (CAM) 17 metals, semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), chlorinated pesticides, polychlorinated biphenyls (PCBs) (Aroclors and Congeners), and volatile organic compounds (VOCs).

Sample locations and analysis protocols established for this study were selected to provide high resolution data about water quality in Oxford Retention Basin and the adjacent receiving water, Basin E.

2.0 MATERIALS AND METHODS

2.1 Field Collection Program for Dry Weather Water Quality Samples

The dry weather water quality field sampling program was completed on March 11, 2010 in accordance with the approved Sampling and Analysis Plan (SAP) and followed guidance provided in the Health and Safety Plan (HSP).

2.1.1 Station Locations

The sampling stations for the dry weather component of the water quality sampling are shown in Figure 1. Due to extremely shallow water during low tide, Station ORB-E was moved approximately 40 meters

southwest of the proposed location as described in the SAP (Table 1). The relocation of Station ORB-E to an area slightly deeper allowed for water collection without the draft of the inflatable boat disturbing the sediment layer during water sample collection.

As the goal of these sampling events was to characterize the baseline dry weather water quality conditions in the two basins, water samples were collected from a number of locations and composited together to more accurately represent water quality conditions in each basin (Table 1 and Figure 1). In Oxford Retention Basin, water was collected from five sample locations and composited to represent one sample for analysis. Basin E samples were collected from three sample locations and composited into one sample for laboratory analysis. Three of the constituents from the analyte list are not conducive to composite analysis. Thus, for VOC, total petroleum hydrocarbons (TPH), and fecal indicator bacteria analysis, samples were collected from a single sample location (Station ORB-C in Oxford Retention Basin and Station E-C in Basin E) that was determined to best represent the basin water quality as a whole.

For the complete description of water quality sample compositing see section 2.1.2.

Table 1. Station ID and Latitude and Longitude Coordinates for Water Samples Collected Within the Oxford Retention Basin, Basin E, and at the Boone Olive Pump Station

Area/Basin	Station ID	Latitude	Longitude
Oxford Retention Basin	ORB-A	33.98482	-118.45650
	ORB-B	33.98530	-118.45570
	ORB-C	33.98524	-118.45525
	ORB-D	33.98548	-118.45505
	ORB-E	33.98536	-118.45479
Exchange Water	X-ORB	33.98437	-118.45632
	X-Basin E	33.98355	-118.45609
Basin E	Basin E-A	33.98290	-118.45499
	Basin E-B	33.98328	-118.45547
	Basin E-C	33.98292	-118.45600
Boone Olive Pump Station	Boone Olive	33.98461°	-118.45928°

In addition to the samples collected in Oxford Retention Basin and Basin E, samples were also collected from Boone Olive Pump Station. During dry weather conditions, runoff entering Boone Olive Pump Station is diverted to the sanitary sewer system.

For the dry weather water sampling, “Exchange” water samples were collected on the “Basin E” side of the culverts during flood tide and on the “Oxford Retention Basin” side during ebb tide.

Figure 1. Water Quality Sampling Stations within the Oxford Retention Basin, Basin E, and Boone Olive Pumping Station

2.1.2 Water Quality Sample Collection and Handling

Samples for the dry weather monitoring event were collected from an inflatable boat in Oxford Retention Basin and from a kayak in Basin E. At the five locations within Oxford Retention Basin and three locations within Basin E: the latitude and longitude, as well as station depth, depth of saltwater lens (if present) and physical water quality measurements were recorded. The physical water quality measurements that were recorded at each station were: temperature, pH, specific conductivity, dissolved oxygen, and turbidity.

For the dry weather water sampling, "Exchange" water samples were collected on the "Basin E" side of the culverts during flood tide and on the "Oxford Retention Basin" side during ebb tide. Physical water quality measurements, depth, and presence/depth of the saltwater lens were recorded as well.

During the dry weather event, one water quality sample was collected from the Boone Olive Pump Station sump. The samples were collected using a telescoping sample pole with appropriate analyte sample containers. Physical water quality measurements, depth, and presence/depth of the saltwater lens were recorded as well.

Table 2 depicts the water quality sampling protocol. Samples were collected for each round of sampling as described in the table below. Figure 2 illustrates the process for designating sample identifications for composite samples taken from multiple stations within a sampling area.

Table 2. Water Quality Sampling Protocol

		Wet Weather								Dry Weather			
		Pre-Storm		Prior to Stormwater Release		During Stormwater Release		Oxford Basin Drained		Flood Tide		Ebb Tide	
Area/Basin	Station ID	Composite Samples[1]	Individual Grab Samples[2]	Composite Samples[1]	Individual Grab Samples[2]	Composite Samples[1]	Individual Grab Samples[2]	Composite Samples[1]	Individual Grab Samples[2]	Composite Samples[1]	Individual Grab Samples[2]	Composite Samples[1]	Individual Grab Samples[2]
Oxford Retention Basin	ORB-A												
	ORB-B												
	ORB-C	X	X	X (X)	X					X	X	X	X
	ORB-D												
	ORB-E												
Exchange Water	X-ORB	X	X	(X)		X	X					X	X
	X-Basin E	X	X							X	X		
Basin E	Basin E-A		X		X		X		X		X		X
	Basin E-B	X		X		X		X		X		X	
	Basin E-C												
Boone Olive Pump Station	Boone Olive					X	X					X	X

[1] **Composite Samples** SVOCs, Metals, Organochlorine Pesticides, PCBs, TOC, DOC, pH, Hardness, TDS, TSS, Nurrients
[2] **Individual Grab Samples** VOCs, TPH and fecal indicator bacteria
Only one of these two locations will be sampled based upon tide and gate conditions
No samples to be collected
(X) Additional analytes to be collected for bioremediation study (O+G, cyanide, BOD, COD, chloride, Organophosphorus Pesticides)

At each water quality sample location, salinity measurements were collected to determine if any freshwater lenses or layers were present. If a freshwater lens was present, the depth of the lens at that location was recorded. Water quality samples were collected from below the freshwater lens, if detected. During the course of this study one field duplicate and one field blank sample were collected for quality assurance (QA) purposes.

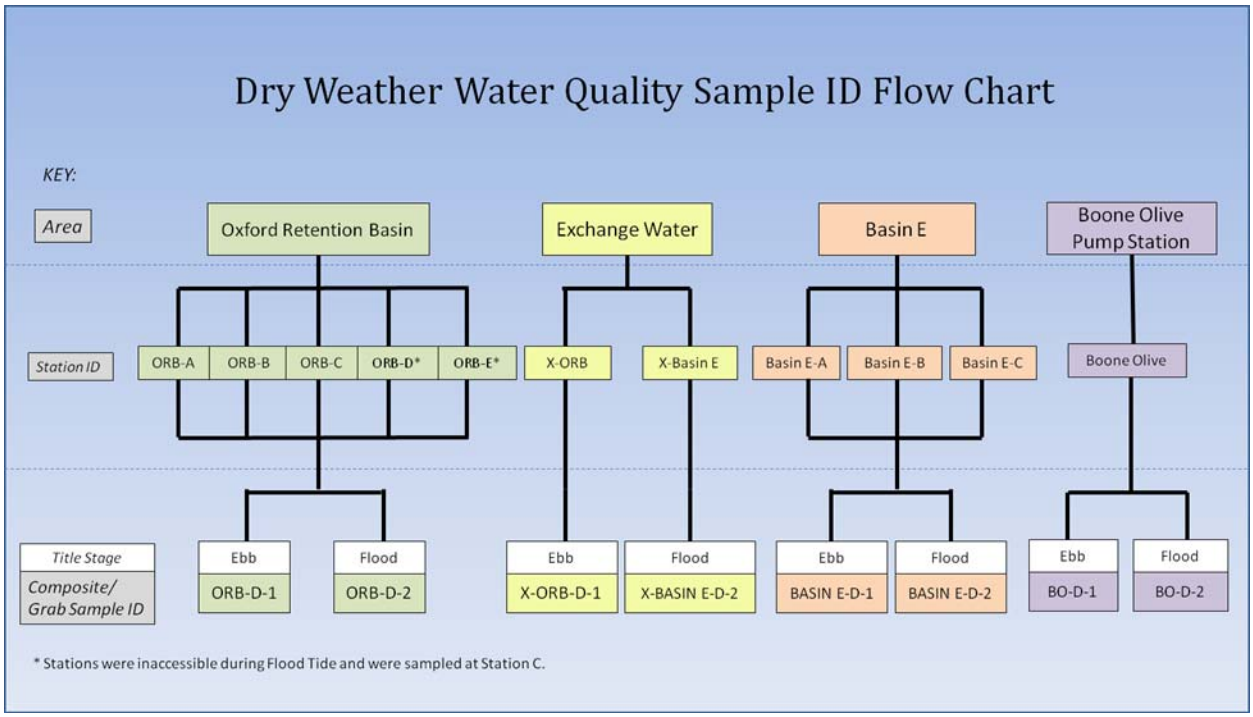

Figure 2. Dry Weather Water Quality Sample ID Flow Chart

The composite water samples were collected directly into 2 liter glass jars and composited into 19 liter borosilicate glass jugs. The composite sample was then partitioned from the glass jug into separate, appropriate analyte containers as needed.

Field scientists wearing clean, disposable gloves collected water grab samples in sterile, glass containers. Water to be tested for conventional analytes was collected from beneath the water surface to a depth of 6 inches (or below the freshwater lens, if determined present). The bottle was submerged open-end down approximately 6 inches below the water's surface. The bottle was then turned face-up and allowed to fill. Care was taken to avoid contaminating the sample with debris and/or disturbed sediment.

2.1.3 Sample Processing and Storage

The composite water samples were collected directly into new 2 liter glass jars and composited into 19 liter borosilicate glass jugs. The composite sample was then partitioned from the glass jug into separate, appropriate analyte containers as needed.

The grab samples that were not conducive to composite sampling, as well as the exchange water sites samples were collected in the field directly into the appropriate lab containers for each respective analyte.

After samples were partitioned to the appropriate analyte containers they were immediately placed in coolers on ice. The samples were kept in accordance with strict chain-of-custody procedures until relinquished to laboratory couriers.

2.1.4 Navigation

All station locations were pre-planned (refer to SAP). Locations were determined using a Garmin Wide Area Augmentation System (WAAS) enabled Global Positioning System device (GPS). The system uses

corrections provided by the Federal Aviation Administration (FAA) and was accurate within 15 ft. All final station locations were recorded in the field using positions from the GPS.

2.1.5 Decontamination of Field and Laboratory Equipment

All sampling equipment was cleaned prior to sampling. Water samples collected for composite analysis samples were collected in new lab certified pre-cleaned 2 liter jars. The composite samples were then poured into lab-cleaned 19 liter borosilicate jars, and then homogenized and partitioned into appropriate containers for laboratory analysis.

The grab samples that were not conducive to composite sampling, as well as the exchange water sites samples were collected in the field directly into the appropriate lab containers for each respective analyte.

2.1.6 Shipping

Prior to delivery of samples to the various chemistry laboratories, sample containers were securely packed inside the cooler with ice. Chain of Custody (COC) forms were filled out, and the original signed COC forms were inserted in a sealable plastic bag and placed inside the cooler. The cooler lids were securely taped shut. Samples were delivered to the analytical laboratories listed in Table 3.

Table 3. Analytical Laboratories, Point-of-Contact Information, and Shipping Information

Laboratory	Analyses Performed	Point-of-Contact	Shipping Information
CRG Marine Laboratories, Inc.	Sediment and Water chemistry	Mr. Eugene Chae (310) 533-5190/(310) 320-1276	CRG Marine Laboratories, Inc. 2020 Del Amo Blvd. Torrance, CA 90501

2.1.7 Documentation of Chain-of-Custody

Samples were considered to be in custody if they were: (1) in the custodian's possession or view, (2) retained in a secured place (under lock) with restricted access, or (3) placed in a secured container. The principal documents used to identify samples and to document possession were COC records, field log books, and field tracking forms. COC procedures were used for all samples throughout the collection, transport, and analytical process, and for all data and data documentation, whether in hard copy or electronic format.

COC procedures were initiated during sample collection. A COC record was provided with each sample or sample group. Each person who had custody of the samples signed the form and ensured that the samples were not left unattended unless properly secured. Minimum documentation of sample handling and custody included the following:

- Sample identification
- Sample collection date and time
- Any special notations on sample characteristics
- Initials of the person collecting the sample
- Date the sample was sent to the laboratory
- Shipping company and waybill information

The completed COC form was placed in a sealable plastic envelope that traveled inside the ice chest containing the listed samples. The COC form was signed by the person transferring the custody of the

samples. The condition of the samples was recorded by the receiver. COC records were included in the final analytical report prepared by the laboratory, and were considered an integral part of that report.

2.2 Physical and Chemical Analyses

2.2.1 Dry Weather Water Quality Samples

Seven samples, plus one field duplicate and one field blank were collected and analyzed during this project. Each water sample was analyzed for:

- pH
- TOC
- DOC
- Hardness
- Total Dissolved Solids
- Total Suspended Solids
- Nutrients (ammonia, total Kjeldahl nitrogen (TKN), nitrate, nitrite)
- Indicator Bacteria (Total and Fecal Coliform, *E. coli* and Enterococcus) (not composited)
- CAM 17 Metals (Total and Dissolved)
- SVOCs
- TPH (C6-C44)
- Chlorinated Pesticides
- PCBs
- VOCs

All chemical analyses were conducted in accordance with U.S. Environmental Protection Agency (USEPA) or Standard Methods (SM) approved methods. Total and dissolved metals were also analyzed and ultra-low detection limits (0.1 ng/l) for PCB analysis were used to satisfy established TMDL requirements.

3.0 RESULTS

3.1 Sample Collection

The dry weather water quality field sampling program was completed on March 11, 2010 in accordance with the approved SAP. Two rounds of sampling were conducted during the sampling event, once during the ebbing and once during flooding tide. Table 4 presents the station locations where samples were collected during each sampling round. Boone Olive Pump Station was only sampled during the ebb tide.

The first round of sampling was conducted after the high tide peak, while the tide was receding (termed ebb tide). The ebb tide sampling round was conducted to evaluate how water discharged from Oxford Retention Basin and Boone Olive Pump Station may affect water quality in Basin E. Samples were collected from Oxford Retention Basin (with the tide gates closed), the exchange water from the Oxford Retention Basin side of the tide gate, the Boone Olive Pump Station, and Basin E.

The second round of sampling was conducted after the low tide nadir, while the tide was filling in (termed flood tide). The flood tide sampling round was conducted to evaluate how flood water from Basin E may affect water quality in Oxford Retention Basin. Samples were collected from Basin E, the exchange water

from the Basin E side of the tide gate, and Oxford Retention Basin. All samples were taken after the tide gate between Oxford Retention Basin and Basin E was opened.

Due to extremely low water levels in Oxford Retention Basin during the flood tide sampling round, samples to be taken at Stations ORB-D and ORB-E were unable to be collected. A strong current was created in Oxford Retention Basin while the tide gate was open. Water being discharged from Oxford Retention Basin to Basin E had significantly dropped the water level in the east end of the basin, leaving it inaccessible for sampling. Samples ORB-D and ORB-E were collected at Station ORB-C, where water levels were sufficient enough for sampling. These samples were processed following the procedure described in section 2.1.2.

Table 4. Station ID and Latitude and Longitude Coordinates for Water Samples Collected Within the Oxford Retention Basin, Basin E, and at the Boone Olive Pump Station

Area/Basin	Station ID	Latitude	Longitude
Oxford Retention Basin	ORB-A	33.98482°	-118.45650°
	ORB-B	33.98530°	-118.45570°
	ORB-C	33.98524°	-118.45525°
	ORB-D*	33.98548°	-118.45505°
	ORB-E*	33.98536°	-118.45479°
Exchange Water	X-ORB	33.98437°	-118.45632°
	X-Basin E	33.98355°	-118.45609°
Basin E	Basin E-A	33.98290°	-118.45499°
	Basin E-B	33.98328°	-118.45547°
	Basin E-C	33.98292°	-118.45600°
Boone Olive Pump Station	Boone Olive	33.98461°	-118.45928°

*Stations were inaccessible during Flood Tide and were sampled at Station C.

3.2 Dry Weather Water Quality Chemistry

3.2.1 Field Data Results

Physical parameter measurements were taken in the field during the dry weather event of March 11, 2010. Measurements were recorded at each designated station in conjunction with sample collection. The data collected in the field are summarized in Table 5.

3.2.2 Analytical Chemistry Results

Results of the dry weather water quality sampling are presented in Table 6. These results were compared to the either the California Ocean Plan and/or the California Toxics Rule as appropriate.

3.2.3 Microbiology Results

Grab samples were collected during the dry weather event of March 11, 2010. A total of seven samples were collected from Oxford Retention Basin, Basin E and the Boone-Olive pump station. Results from the microbiology samples are presented in Table 6. Samples were collected and analyzed for total coliform, fecal coliform and enterococci, *E. coli*.

Table 5. Field Observations of Water Quality during Dry Weather Event

Parameter	Unit	Oxford Basin					Exchange Water	Basin E			Boone Olive Pump Station
		ORB-A	ORB-B	ORB-C	ORB-D	ORB-E	X-Basin E	Basin E-A	Basin E-B	Basin E-C	Boone Olive
Flood Tide											
Date		3/11/2010	3/11/2010	3/11/2010	Stations ORB-D and ORB-E were inaccessible due to low water levels; physical parameter measurements and samples collected at station ORB-C.		3/11/2010	3/11/2010	3/11/2010	3/11/2010	
Time		1245	1245	1245			1200	1400	1400	1400	
pH		7.77	7.88	7.91			7.70	7.85	7.27	7.82	
Conductivity	mS	37.65	25.42	26.06			46.04	52.37	52.31	53.32	
Turbidity	NTU	2.7	1.3	11.7			0.3	-0.3	0.1	0.0	
Dissolved Oxygen	mg/L	7.79	9.68	10.3			5.87	7.38	7.87	7.3	
Temperature	°C	19.74	20.75	20.87			16.73	16.71	16.46	16.55	
Color		None	None	Light Brown			None	None	None	None	
Odor		None	None	Organic			None	None	None	None	
Clarity		Clear	Clear	Slightly Turbid			Clear	Clear	Clear	Clear	
Water Depth (Total)	feet	1.7	0.41	0.41			7.4	10.8	9.7	12.5	
Fresh Water Lens Depth	feet	1.5	None	None			None	2.5	2.8	2.7	
Ebb Tide											
Date		3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Time		0800	0800	0800	0800	0800	1055	1015	1015	1015	0930
pH		7.91	7.83	7.88	7.66	7.87	7.93	7.92	7.91	7.91	7.62
Conductivity	mS	43.48	44.5	45.4	45.65	43.27	33.81	52.66	52.46	52.45	7.52
Turbidity	NTU	0.3	1.7	1.8	2.6	1.4	2.9	1.4	0.0	0.0	0.4
Dissolved Oxygen	mg/L	6.77	4.21	5.23	2.65	4.66	6.33	7.23	7.15	7.27	7.11
Temperature	°C	14.59	16.1	15.8	17.29	15.7	17.61	16.23	16.05	16.08	18.41
Color		None	None	None	None	None	None	None	None	None	None
Odor		Sulfide	None	None	Sulfide	Sulfide	None	None	None	None	Sulfide/ Anaerobic
Clarity		Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Water Depth (Total)	feet	3.3	2.2	1.6	1.7	1.6	5.5	12.5	11.1	14.7	2.4
Fresh Water Lens Depth	feet	2.0	1.9	1.5	1.5	1.5	None	None	None	None	N/A

Table 6: Summary of Oxford Retention Basin Dry Weather Water Quality Chemistry

Parameter	Method	Units	COP	CTR Freshwater	CTR Saltwater	Saltwater						Freshwater
						Basin E	Basin E	Basin E Exchange	Oxford Basin	Oxford Basin	Oxford Exchange	Boone Olive
						BASIN E -D -1	BASIN E -D -2	X -BASIN E -D -2	ORB -D -1	ORB -D -2	X -ORB -D -1	BO -D -1
General Chemistry												
pH	SM 4500 H+	pH Units				7.8 H	7.9 H	7.5 H	7.5 H	7.9 H	7.7 H	7 H
Total Hardness as CaCO3	SM 2340 B	mg/L				5,778.30	5,050	4,836.50	5,094.20	2,852.50	3,651.60	899.9
Total Dissolved Solids	SM 2540 C	mg/L				32,760	28,480	27,780	28,640	15,900	19,800	3,944
Total Suspended Solids	SM 2540 D	mg/L				3.8 J	3.2 J	4.2 J	4.5 J	23	3.5 J	1.3 J
Dissolved Organic Carbon	SM 5310 B	mg/L				7.4	0.9 J	2.2	1.3 J	1.7 J	4	2.6
Total Organic Carbon	SM 5310 B	mg/L				0.8 J	1 J	3.1	2	2.1	3	2.7
Ammonia-N	SM 4500-NH3 F	mg/L	6			<0.03	0.07	0.11	0.16	0.14	0.15	0.03 J
Nitrite-N	SM 4500-NO2 B	mg/L				<0.01	0.02 J	0.03 J	0.04 J	0.05	0.07	0.01 J
Nitrate-N	SM 4500-NO3 E	mg/L				0.09	0.51	0.5	0.46	2.8	1.67	4.73
Total Kjeldahl Nitrogen	SM 4500-N D	mg/L				<0.456	<0.456	0.458 J	0.586 J	0.642 J	0.632 J	<0.456
Total Orthophosphate as P	SM 4500-P E	mg/L				0.03	0.05	0.06	0.06	0.14	0.08	0.18
Total Sulfides	SM 4500-S2 D	mg/L				<0.01	<0.01	<0.01	<0.01	0.02 J	<0.01	0.01 J
Bacteria Indicators												
E. coli	Colilert	MPN/100mL				30	10	<10	10	63	<10	20
Enterococci	Enterolert	MPN/100mL	104			20	20	<10	30	195	30	63
Fecal Coliform	SM 9221E	MPN/100mL	400			40	<20	<20	<20	230	<20	20
Total Coliform	SM 9221B	MPN/100mL	10000			220	70	40	220	1400*	220	1,100
Total Metals												
Antimony (Sb)	EPA 1640m/EPA 200.8m	µg/L				0.21 B	0.45 B	0.52 B	0.47 B	0.76 B	0.86 B	0.4 J
Arsenic (As)	EPA 1640m/EPA 200.8m	µg/L	80			2.84	2.08	2.49	1.84	1.7	1.67	11.1
Barium (Ba)	EPA 200.8m	µg/L				11.2	17.6	21	19.8	38.6	32.5	56.3
Beryllium (Be)	EPA 1640m/EPA 200.8m	µg/L				0.042 B	0.031 B	0.041 B	0.036 B	0.052 B	0.04 B	<0.2
Cadmium (Cd)	EPA 1640m/EPA 200.8m	µg/L	10			0.076	0.089	0.066	0.067	0.123	0.06	<0.2
Chromium (Cr)	EPA 1640m/EPA 200.8m	µg/L	20			0.358	1.363	1.684	1.533	9.161	3.728	1.1
Cobalt (Co)	EPA 1640m/EPA 200.8m	µg/L				0.355 B	0.396 B	0.39 B	0.461 B	0.593 B	0.51	0.3 J
Copper (Cu)	EPA 1640m/EPA 200.8m	µg/L	30			6.99 B	5.92 B	3.98 B	4.78 B	8.82 B	3.81 B	0.9
Lead (Pb)	EPA 1640m/EPA 200.8m	µg/L	20			0.689 B	0.944 B	1.122 B	1.508	5.987 B	1.162 B	<0.05
Mercury (Hg)	EPA 245.7m	µg/L	0.4			<0.01	<0.01	<0.01	<0.01	0.01 J	<0.01	0.01 J
Molybdenum (Mo)	EPA 1640m/EPA 200.8m	µg/L				10.33 B	10.83 B	10.14 B	10.2 B	10.4 B	9.732 B	19.6
Nickel (Ni)	EPA 1640m/EPA 200.8m	µg/L	50			0.494 B	0.685 B	0.787 B	0.814 B	1.547 B	1.021 B	2.7
Selenium (Se)	EPA 1640m/EPA 200.8m	µg/L	150			0.02	0.05	0.05	0.04	0.07	0.05	4.4
Silver (Ag)	EPA 1640m/EPA 200.8m	µg/L	7			0.68 B	0.68 B	0.65 B	0.61 B	0.64 B	0.64 B	<0.5
Thallium (Tl)	EPA 1640m/EPA 200.8m	µg/L				0.009 J	0.007 J	<0.005	<0.005	0.005 J	<0.005	<0.1
Vanadium (V)	EPA 1640m/EPA 200.8m	µg/L				2.05	2.3	2.09	1.9	4.22	2.57	3.6
Zinc (Zn)	EPA 1640m/EPA 200.8m	µg/L	200			30.14 B	27.79 B	25.27 B	28.01 B	42.21 B	22.97 B	5.2 B
Dissolved Metals												
Antimony (Sb)	EPA 1640m/EPA 200.8m	µg/L				0.26 B	0.44 B	0.7 B	0.52 B	0.82 B	0.79 B	0.5

Table 6: Summary of Oxford Retention Basin Dry Weather Water Quality Chemistry

Parameter	Method	Units	COP	CTR Freshwater	CTR Saltwater	Saltwater						Freshwater
						Basin E	Basin E	Basin E Exchange	Oxford Basin	Oxford Basin	Oxford Exchange	Boone Olive
						BASIN E -D -1	BASIN E -D -2	X -BASIN E -D -2	ORB -D -1	ORB -D -2	X -ORB -D -1	BO -D -1
Arsenic (As)	EPA 1640m/EPA 200.8m	µg/L		340 (a)	69	2.26 B	1.7 B	1.29 B	1.75 B	1.34 B	1.49 B	12.6
Barium (Ba)	EPA 200.8m	µg/L				9.1	17.5	20.5	19.8	37.4	30.6	53.3
Beryllium (Be)	EPA 1640m/EPA 200.8m	µg/L				0.03 B	0.032 B	0.029 B	0.033 B	0.038 B	0.04 B	<0.2
Cadmium (Cd)	EPA 1640m/EPA 200.8m	µg/L		(b)	42	0.074 B	0.073 B	0.057 B	0.038 B	0.028 B	0.047 B	0.2 J
Chromium (Cr)	EPA 1640m/EPA 200.8m	µg/L		(b)	1100	0.17	0.874	0.792	0.578	4.902	2.625	1
Cobalt (Co)	EPA 1640m/EPA 200.8m	µg/L				0.374 B	0.502 B	0.415 B	0.4 B	0.442 B	0.46 B	0.4 J
Copper (Cu)	EPA 1640m/EPA 200.8m	µg/L		(b)	4.8	5.1 B	3.82 B	1.58 B	1.09 B	0.76 B	1.89 B	1.5
Lead (Pb)	EPA 1640m/EPA 200.8m	µg/L		(b)	210	0.131	0.051	0.032	0.025	0.077	0.057	0.12
Mercury (Hg)	EPA 245.7m	µg/L				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Molybdenum (Mo)	EPA 1640m/EPA 200.8m	µg/L				10.1	10.42	10.06	9.914	10.32	9.686	21
Nickel (Ni)	EPA 1640m/EPA 200.8m	µg/L		(b)	74	0.445 B	0.613 B	0.719 B	0.674 B	0.986 B	0.972 B	2.8
Selenium (Se)	EPA 1640m/EPA 200.8m	µg/L			290	0.02	0.04	0.04	0.04	0.07	0.03	5.6
Silver (Ag)	EPA 1640m/EPA 200.8m	µg/L		(b)	1.9	0.63 B	0.66 B	0.63 B	0.58 B	0.64 B	0.64 B	1.2
Thallium (Tl)	EPA 1640m/EPA 200.8m	µg/L				0.012	0.006 J	<0.005	<0.005	<0.005	<0.005	<0.1
Vanadium (V)	EPA 1640m/EPA 200.8m	µg/L				1.75	1.85	1.58	1.32	3.05	2.26	3.4
Zinc (Zn)	EPA 1640m/EPA 200.8m	µg/L		(b)	90	29.26 B	23.73 B	20.33 B	18.79 B	6.111 B	15.48 B	5.5
Acid Extractable Compounds												
2,3,4,6-Tetrachlorophenol	EPA 625m	ng/L										<50
2,4,5-Trichlorophenol	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
2,4,6-Trichlorophenol	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
2,4-Dichlorophenol	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
2,4-Dimethylphenol	EPA 625m	ng/L				<100	<100	<100	<100	<100	<100	<100
2,4-Dinitrophenol	EPA 625m	ng/L				<100	<100	<100	<100	<100	<100	<100
2,6-Dichlorophenol	EPA 625m	ng/L										<50
2-Chlorophenol	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
2-Methyl-4,6-dinitrophenol	EPA 625m	ng/L				<100	<100	<100	<100	<100	<100	<100
2-Methylphenol	EPA 625m	ng/L				<100	<100	<100	<100	<100	<100	<100
2-Nitrophenol	EPA 625m	ng/L				<100	<100	<100	<100	<100	<100	<100
3+4-Methylphenol	EPA 625m	ng/L				<100	<100	<100	<100	<100	<100	<100
4-Chloro-3-methylphenol	EPA 625m	ng/L				<100	<100	<100	<100	<100	<100	<100
4-Nitrophenol	EPA 625m	ng/L				<100	<100	<100	<100	<100	<100	<100
Benzoic Acid	EPA 625m	ng/L				<100	<100	<100	<100	<100	<100	<100
Pentachlorophenol	EPA 625m	ng/L		(c)	13000	<50	<50	<50	<50	<50	<50	<50
Phenol	EPA 625m	ng/L				<100	<100	<100	<100	<100	<100	<100
Total Chlorinated Phenolics	Calculations	ng/L	10000			<100	<100	<100	<100	<100	<100	<100
Total Non-Chlorinated Phenolics	Calculations	ng/L	300000			<100	<100	<100	<100	<100	<100	<100
Base/Neutral Extractable Compounds												
1,2,4-Trichlorobenzene	EPA 625m	ng/L				<10	<10	<10	<10	<10	<10	<10
2,4-Dinitrotoluene	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50

Table 6: Summary of Oxford Retention Basin Dry Weather Water Quality Chemistry

Parameter	Method	Units	COP	CTR Freshwater	CTR Saltwater	Saltwater						Freshwater
						Basin E	Basin E	Basin E Exchange	Oxford Basin	Oxford Basin	Oxford Exchange	Boone Olive
						BASIN E -D -1	BASIN E -D -2	X -BASIN E -D -2	ORB -D -1	ORB -D -2	X -ORB -D -1	BO -D -1
2,6-Dinitrotoluene	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
2-Chloronaphthalene	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
3,3'-dichlorobenzidine	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
4-Bromophenylphenylether	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
4-Chlorophenylphenylether	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
Azobenzene	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
Benzidine	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
Butylbenzyl Phthalate	EPA 625m	ng/L				40 J	44 J	41 J	57	58	58	60
Di-n-butyl Phthalate	EPA 625m	ng/L				<75	<75	<75	91 J	98 J	<75	<75
Di-n-octyl Phthalate	EPA 625m	ng/L				<10	<10	<10	17 J	58	<10	<10
Diethyl Phthalate	EPA 625m	ng/L				<100	<100	<100	<100	115 J	167	<100
Dimethyl Phthalate	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
Hexachlorobenzene	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
Hexachlorocyclopentadiene	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
Hexachloroethane	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
Isophorone	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
N-Nitrosodi-n-propylamine	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
N-Nitrosodimethylamine	EPA 1625M	ng/L				<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	2.5
N-Nitrosodiphenylamine	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
Nitrobenzene	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
bis(2-Chloroethoxy)methane	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
bis(2-Chloroethyl)ether	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
bis(2-Chloroisopropyl)ether	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
bis(2-Ethylhexyl) Phthalate	EPA 625m	ng/L				<100	178	<100	276	1118	148	<100
Polynuclear Aromatic Hydrocarbons												
1-Methylnaphthalene	EPA 625m	ng/L				<1	<1	<1	<1	1.7 J	2.3 J	1.2 J
1-Methylphenanthrene	EPA 625m	ng/L				<1	<1	<1	<1	3.1 J	<1	<1
2,3,5-Trimethylnaphthalene	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
2,6-Dimethylnaphthalene	EPA 625m	ng/L				1 J	<1	1.2 J	5.1	15.7	3.3 J	<1
2-Methylnaphthalene	EPA 625m	ng/L				<1	<1	<1	<1	4.7 J	3.3 J	1.9 J
Acenaphthene	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
Acenaphthylene	EPA 625m	ng/L				<1	<1	<1	<1	2.4 J	1.1 J	<1
Anthracene	EPA 625m	ng/L				<1	<1	<1	<1	3.5 J	<1	1.7 J
Benz[a]anthracene	EPA 625m	ng/L				<1	<1	<1	4.7 J	9.6	<1	<1
Benzo[a]pyrene	EPA 625m	ng/L				<1	<1	<1	3.3 J	11.9	<1	<1
Benzo[b]fluoranthene	EPA 625m	ng/L				<1	<1	<1	6.3	23.7	<1	<1
Benzo[e]pyrene	EPA 625m	ng/L				<1	<1	<1	3.4 J	21.2	<1	<1
Benzo[g,h,i]perylene	EPA 625m	ng/L				<1	<1	<1	13.3	21.2	<1	<1

Table 6: Summary of Oxford Retention Basin Dry Weather Water Quality Chemistry

Parameter	Method	Units	COP	CTR Freshwater	CTR Saltwater	Saltwater						Freshwater
						Basin E	Basin E	Basin E Exchange	Oxford Basin	Oxford Basin	Oxford Exchange	Boone Olive
						BASIN E -D -1	BASIN E -D -2	X -BASIN E -D -2	ORB -D -1	ORB -D -2	X -ORB -D -1	BO -D -1
Benzo[k]fluoranthene	EPA 625m	ng/L				<1	<1	<1	1.6 J	6.5	<1	<1
Biphenyl	EPA 625m	ng/L				1.6 J	1.6 J	2.1 J	2.3 J	5.1	3.6 J	2.2 J
Chrysene	EPA 625m	ng/L				<1	<1	3.8 J	11	28.2	1.8 J	5.7
Dibenz[a,h]anthracene	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
Dibenzothiophene	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
Fluoranthene	EPA 625m	ng/L				1.2 J	4.2 J	5.5	16.4	46.6	5.5	9.6
Fluorene	EPA 625m	ng/L				<1	<1	<1	<1	4.9 J	2.9 J	1.7 J
Indeno[1,2,3-c,d]pyrene	EPA 625m	ng/L				<1	<1	<1	<1	14.3	<1	<1
Naphthalene	EPA 625m	ng/L				2.2 J, B	3 J, B	3.1 J, B	3.4 J, B	9.7 B	5.1 B	6.8 B
Perylene	EPA 625m	ng/L				<1	<1	<1	<1	5.8	<1	<1
Phenanthrene	EPA 625m	ng/L				<1	2 J	3 J	4.6 J	20.1	5.1	10.2
Pyrene	EPA 625m	ng/L				1.4 J	3.4 J	4 J	14.7	38.7	3.8 J	7.3
Total Detectable PAHs	Calculations	ng/L				7.4	14.2	22.7	90.1	298.6	37.8	48.3
TPH-CC												
C6	EPA 8015B (M)	ug/L				<1.4	<1.4	<1.4	<1.4	<2.8	<1.4	<1.4
C7	EPA 8015B (M)	ug/L				<6.1	<6.1	<6.1	<6.1	<12	<6.1	<6.1
C8	EPA 8015B (M)	ug/L				<9.9	<9.9	<9.9	<9.9	<20	<9.9	<9.9
C9-C10	EPA 8015B (M)	ug/L				<13	<13	<13	<13	<26	<13	<13
C11-C12	EPA 8015B (M)	ug/L				<14	<14	<14	<14	<29	<14	<14
C13-C14	EPA 8015B (M)	ug/L				<16	<16	<16	<16	<31	<16	<16
C15-C16	EPA 8015B (M)	ug/L				<17	<17	<17	<17	<34	<17	<17
C17-C18	EPA 8015B (M)	ug/L				<17	<17	<17	<17	<35	<17	<17
C19-C20	EPA 8015B (M)	ug/L				<18	<18	<18	<18	<35	<18	<18
C21-C22	EPA 8015B (M)	ug/L				<18	<18	<18	<18	<35	<18	<18
C23-C24	EPA 8015B (M)	ug/L				<18	<18	<18	<18	<35	<18	<18
C25-C28	EPA 8015B (M)	ug/L				<16	<16	<16	21	<31	24	<16
C29-C32	EPA 8015B (M)	ug/L				<8.5	<8.5	16	29	37	31	<8.5
C33-C36	EPA 8015B (M)	ug/L				<7.9	<7.9	14	25	30	25	<7.9
C37-C40	EPA 8015B (M)	ug/L				<6.8	8.2	14	20	28	16	<6.8
C41-C44	EPA 8015B (M)	ug/L				<6.6	<6.6	<6.6	20	19	<6.6	<6.6
C6-C44 Total	EPA 8015B (M)	ug/L				<47	<47	<47	110	110	96	<47
Chlorinated Pesticides												
2,4'-DDD	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
2,4'-DDE	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
2,4'-DDT	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
4,4'-DDD	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
4,4'-DDE	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
4,4'-DDT	EPA 625m	ng/L		1100	130	<1	<1	<1	<1	<1	<1	<1
Aldrin	EPA 625m	ng/L		3000	1300	<1	<1	<1	<1	<1	<1	<1

Table 6: Summary of Oxford Retention Basin Dry Weather Water Quality Chemistry

Parameter	Method	Units	COP	CTR Freshwater	CTR Saltwater	Saltwater						Freshwater
						Basin E	Basin E	Basin E Exchange	Oxford Basin	Oxford Basin	Oxford Exchange	Boone Olive
						BASIN E -D -1	BASIN E -D -2	X -BASIN E -D -2	ORB -D -1	ORB -D -2	X -ORB -D -1	BO -D -1
BHC-alpha	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
BHC-beta	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
BHC-delta	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
BHC-gamma	EPA 625m	ng/L		950	160	<1	<1	<1	<1	<1	<1	<1
Chlordane-alpha	EPA 625m	ng/L				<1	<1	<1	<1	3.3 J	<1	<1
Chlordane-gamma	EPA 625m	ng/L				<1	<1	<1	1.6 J	2.1 J	<1	<1
DCPA (Dacthal)	EPA 625m	ng/L				<5	<5	<5	<5	<5	<5	<5
Dicofol	EPA 625m	ng/L				<50	<50	<50	<50	<50	<50	<50
Dieldrin	EPA 625m	ng/L		240	710	<1	<1	<1	<1	<1	<1	<1
Endosulfan Sulfate	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
Endosulfan-I	EPA 625m	ng/L	27	220	34	<1	<1	<1	<1	<1	<1	<1
Endosulfan-II	EPA 625m	ng/L	27	220	34	<1	<1	<1	<1	<1	<1	<1
Endrin	EPA 625m	ng/L	6	83	37	<1	<1	<1	<1	<1	<1	<1
Endrin Aldehyde	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
Endrin Ketone	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
Heptachlor	EPA 625m	ng/L		52	53	<1	<1	<1	<1	<1	<1	<1
Heptachlor Epoxide	EPA 625m	ng/L		52	53	<1	<1	<1	<1	<1	<1	<1
Methoxychlor	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
Mirex	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
Oxychlordane	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
Perthane	EPA 625m	ng/L				<5	<5	<5	<5	<5	<5	<5
cis-Nonachlor	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
trans-Nonachlor	EPA 625m	ng/L				<1	<1	<1	<1	1.1 J	<1	<1
Toxaphene	EPA 625mNCI	ng/L		730	210	<10	<10	<10	<10	<10	<10	<10
Total Detectable BHC	Calculations	ng/L	12			<1	<1	<1	<1	<1	<1	<1
Total Detectable Chlordane	Calculations	ng/L				<1	<1	<1	1.6	6.5	<1	<1
Total Detectable DDTs	Calculations	ng/L				<1	<1	<1	<1	<1	<1	<1
Aroclor PCBs												
Aroclor 1016	EPA 625m	ng/L				<10	<10	<10	<10	<10	<10	<10
Aroclor 1221	EPA 625m	ng/L				<10	<10	<10	<10	<10	<10	<10
Aroclor 1232	EPA 625m	ng/L				<10	<10	<10	<10	<10	<10	<10
Aroclor 1242	EPA 625m	ng/L				<10	<10	<10	<10	<10	<10	<10
Aroclor 1248	EPA 625m	ng/L				<10	<10	<10	<10	<10	<10	<10
Aroclor 1254	EPA 625m	ng/L				<10	<10	<10	<10	<10	<10	<10
Aroclor 1260	EPA 625m	ng/L				<10	<10	<10	<10	<10	<10	<10
Total Aroclor	Calculations	ng/L				<10	<10	<10	<10	<10	<10	<10
PCB Congeners												
PCB003	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB008	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1

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Parameter	Method	Units	COP	CTR Freshwater	CTR Saltwater	Saltwater						Freshwater
						Basin E	Basin E	Basin E Exchange	Oxford Basin	Oxford Basin	Oxford Exchange	Boone Olive
						BASIN E -D -1	BASIN E -D -2	X -BASIN E -D -2	ORB -D -1	ORB -D -2	X -ORB -D -1	BO -D -1
PCB018	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB028	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB031	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB033	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB037	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB044	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB049	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB052	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB056/060	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB066	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB070	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB074	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB077	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB081	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB087	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB095	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB097	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB099	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB101	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB105	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB110	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB114	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB118	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB119	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB123	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB126	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB128	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB138	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB141	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB149	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB151	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB153	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB156	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB157	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB158	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB167	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB168+132	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB169	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB170	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1

Table 6: Summary of Oxford Retention Basin Dry Weather Water Quality Chemistry

Parameter	Method	Units	COP	CTR Freshwater	CTR Saltwater	Saltwater						Freshwater
						Basin E	Basin E	Basin E Exchange	Oxford Basin	Oxford Basin	Oxford Exchange	Boone Olive
						BASIN E -D -1	BASIN E -D -2	X -BASIN E -D -2	ORB -D -1	ORB -D -2	X -ORB -D -1	BO -D -1
PCB174	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB177	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB180	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB183	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB187	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB189	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB194	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB195	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB200	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB201	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB203	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB206	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB209	EPA 625m	ng/L				<1	<1	<1	<1	<1	<1	<1
Total PCBs for EPA 625m	Calculations	ng/L				<1	<1	<1	<1	<1	<1	<1
PCB1	EPA 1668A	ng/L				<0.019	<0.056	<0.03	<0.0082	<0.017	<0.017	<0.014
PCB10	EPA 1668A	ng/L				<0.042	<0.074	<0.028	<0.022	<0.016	<0.019	<0.024
PCB103	EPA 1668A	ng/L				<0.0066	<0.006	<0.0075	<0.0075	<0.0069	<0.0068	<0.0043
PCB104	EPA 1668A	ng/L				<0.0055	<0.012	<0.0074	<0.0093	<0.01	<0.0076	<0.005
PCB105	EPA 1668A	ng/L				0.0151 J	<0.024	0.0371 J	0.0492 J	0.26	0.0463 J	<0.0066
PCB106	EPA 1668A	ng/L				<0.0041	<0.0063	<0.0051	<0.0065	<0.0074	<0.0064	<0.0041
PCB107	EPA 1668A	ng/L				<0.0044	<0.0068	0.0084 J	0.0079 J	0.0484 J	0.0099 J	<0.0044
PCB108+124	EPA 1668A	ng/L				<0.0044	<0.0067	<0.0054	<0.0068	0.0228 J	<0.0067	<0.0043
PCB11	EPA 1668A	ng/L				0.057 J	0.1	0.1 J	0.1	0.21	0.13	<0.06
PCB110+115	EPA 1668A	ng/L				0.0696 J	0.105 J	0.143 J	0.178 J	1	0.18 J	0.0336 J
PCB111	EPA 1668A	ng/L				<0.0059	<0.0054	<0.0067	<0.0067	<0.0062	<0.0061	<0.0038
PCB112	EPA 1668A	ng/L				<0.0057	<0.0052	<0.0065	<0.0064	<0.0059	<0.0059	<0.0037
PCB114	EPA 1668A	ng/L				<0.005	<0.0076	<0.0061	<0.0077	0.0137 J	<0.0077	<0.0049
PCB118	EPA 1668A	ng/L				0.0473 J	0.068 J	0.0994 J	0.11	0.6	0.12	0.0218 J
PCB12+13	EPA 1668A	ng/L				<0.019	<0.02	<0.019	<0.0059	<0.015	<0.012	<0.0093
PCB120	EPA 1668A	ng/L				<0.0057	<0.0052	<0.0065	<0.0065	<0.006	<0.0059	<0.0037
PCB121	EPA 1668A	ng/L				<0.0059	<0.0054	<0.0067	<0.0067	<0.0062	<0.0061	<0.0038
PCB122	EPA 1668A	ng/L				<0.0048	<0.0073	<0.0059	<0.0075	<0.0086	<0.0074	<0.0047
PCB123	EPA 1668A	ng/L				<0.005	<0.0077	<0.0062	<0.0079	0.0129 J	<0.0078	<0.005
PCB126	EPA 1668A	ng/L				<0.0049	<0.0075	<0.006	<0.0077	0.0112 J	<0.0076	<0.0048
PCB127	EPA 1668A	ng/L				<0.0042	<0.0065	<0.0052	<0.0066	<0.0076	<0.0065	<0.0042
PCB128+166	EPA 1668A	ng/L				<0.011	<0.013	0.02 J	<0.023	0.153 J	0.027 J	<0.0082
PCB129+138+163	EPA 1668A	ng/L				0.066 J	0.099 J	0.13 J	0.162 J	0.85	0.161 J	0.041 J
PCB130	EPA 1668A	ng/L				<0.013	<0.014	<0.015	<0.012	0.053 J	<0.02	<0.0097
PCB131	EPA 1668A	ng/L				<0.013	<0.014	<0.015	<0.012	<0.013	<0.019	<0.0095

Table 6: Summary of Oxford Retention Basin Dry Weather Water Quality Chemistry

Parameter	Method	Units	COP	CTR Freshwater	CTR Saltwater	Saltwater						Freshwater
						Basin E	Basin E	Basin E Exchange	Oxford Basin	Oxford Basin	Oxford Exchange	Boone Olive
						BASIN E -D -1	BASIN E -D -2	X -BASIN E -D -2	ORB -D -1	ORB -D -2	X -ORB -D -1	BO -D -1
PCB132	EPA 1668A	ng/L				0.017 J	0.027 J	0.036 J	0.05 J	0.27	0.05 J	0.0113 J
PCB133	EPA 1668A	ng/L				<0.012	<0.013	<0.014	<0.011	<0.012	<0.018	<0.0089
PCB134+143	EPA 1668A	ng/L				<0.013	<0.014	<0.015	<0.012	0.033 J	<0.02	<0.0096
PCB135+151	EPA 1668A	ng/L				<0.017	0.022 J	0.028 J	<0.027	0.146 J	0.042 J	<0.012
PCB136	EPA 1668A	ng/L				<0.0077	<0.015	<0.011	<0.014	0.066 J	0.0151 J	<0.0085
PCB137	EPA 1668A	ng/L				<0.014	<0.015	<0.016	<0.013	<0.035	<0.021	<0.01
PCB139+140	EPA 1668A	ng/L				<0.012	<0.012	<0.013	<0.011	0.014 J	<0.018	<0.0086
PCB14	EPA 1668A	ng/L				<0.018	<0.018	<0.018	<0.0055	<0.014	<0.011	<0.0087
PCB141	EPA 1668A	ng/L				<0.012	<0.013	<0.015	0.024 J	0.13	0.023 J	<0.0087
PCB142	EPA 1668A	ng/L				<0.013	<0.014	<0.015	<0.012	<0.013	<0.02	<0.0097
PCB144	EPA 1668A	ng/L				<0.0096	<0.018	<0.013	<0.018	0.021 J	<0.012	<0.011
PCB145	EPA 1668A	ng/L				<0.008	<0.015	<0.011	<0.015	<0.013	<0.01	<0.0088
PCB146	EPA 1668A	ng/L				<0.011	<0.012	<0.014	0.018 J	0.095 J	0.02 J	<0.0083
PCB147+149	EPA 1668A	ng/L				0.044 J	0.063 J	0.079 J	0.095 J	0.46	0.104 J	0.0312 J
PCB148	EPA 1668A	ng/L				<0.0095	<0.018	<0.013	<0.017	<0.015	<0.012	<0.01
PCB15	EPA 1668A	ng/L				<0.026	<0.027	<0.026	<0.0082	<0.021	<0.016	<0.013
PCB150	EPA 1668A	ng/L				<0.008	<0.015	<0.011	<0.015	<0.013	<0.01	<0.0088
PCB152	EPA 1668A	ng/L				<0.0065	<0.012	<0.009	<0.012	<0.01	<0.0081	<0.0071
PCB153+168	EPA 1668A	ng/L				0.054 J	0.075 J	<0.086	0.111 J	0.54	0.128 J	0.0342 J
PCB154	EPA 1668A	ng/L				<0.0088	<0.017	<0.012	<0.016	<0.014	<0.011	<0.0097
PCB155	EPA 1668A	ng/L				<0.0065	<0.012	<0.009	<0.012	<0.01	<0.0081	<0.0071
PCB156+157	EPA 1668A	ng/L				0.0062 J	<0.01	0.0141 J	0.015 J	0.093 J	0.017 J	<0.0087
PCB158	EPA 1668A	ng/L				<0.0094	<0.01	<0.011	<0.015	0.0889 J	<0.014	<0.0069
PCB159	EPA 1668A	ng/L				<0.0054	<0.0093	<0.0088	<0.009	<0.0089	<0.0097	<0.0077
PCB16	EPA 1668A	ng/L				<0.018	<0.056	<0.025	<0.019	<0.022	<0.019	<0.02
PCB160	EPA 1668A	ng/L				<0.011	<0.011	<0.012	<0.0097	<0.01	<0.016	<0.0077
PCB161	EPA 1668A	ng/L				<0.0097	<0.01	<0.011	<0.009	<0.0095	<0.015	<0.0071
PCB162	EPA 1668A	ng/L				<0.0055	<0.0094	<0.009	<0.0092	<0.0091	<0.0099	<0.0078
PCB164	EPA 1668A	ng/L				<0.0094	<0.01	<0.011	0.0148 J	0.0652 J	<0.014	<0.0069
PCB165	EPA 1668A	ng/L				<0.011	<0.011	<0.012	<0.0098	<0.01	<0.016	<0.0078
PCB167	EPA 1668A	ng/L				<0.0059	<0.01	<0.0097	<0.01	0.033 J	<0.011	<0.0085
PCB169	EPA 1668A	ng/L				<0.0062	<0.011	<0.01	<0.01	<0.01	<0.011	<0.0088
PCB17	EPA 1668A	ng/L				<0.015	<0.048	<0.021	<0.017	<0.019	<0.016	<0.017
PCB170	EPA 1668A	ng/L				0.0127 J	0.013 J	0.0199 J	0.028 J	0.13	0.032 J	0.0126 J
PCB171+173	EPA 1668A	ng/L				<0.009	<0.01	<0.0094	<0.013	0.038 J	<0.014	<0.0096
PCB172	EPA 1668A	ng/L				<0.0092	<0.01	<0.0096	<0.013	<0.021	<0.014	<0.0098
PCB174	EPA 1668A	ng/L				<0.0086	<0.0096	0.0162 J	<0.023	0.12	0.028 J	<0.0092
PCB175	EPA 1668A	ng/L				<0.008	<0.013	<0.01	<0.013	<0.011	<0.015	<0.0065
PCB176	EPA 1668A	ng/L				<0.0064	<0.01	<0.008	<0.01	0.0103 J	<0.012	<0.0052

Table 6: Summary of Oxford Retention Basin Dry Weather Water Quality Chemistry

Parameter	Method	Units	COP	CTR Freshwater	CTR Saltwater	Saltwater						Freshwater
						Basin E	Basin E	Basin E Exchange	Oxford Basin	Oxford Basin	Oxford Exchange	Boone Olive
						BASIN E -D -1	BASIN E -D -2	X -BASIN E -D -2	ORB -D -1	ORB -D -2	X -ORB -D -1	BO -D -1
PCB177	EPA 1668A	ng/L				<0.0088	<0.0099	<0.0093	<0.012	0.067 J	0.017 J	<0.0094
PCB178	EPA 1668A	ng/L				<0.008	<0.013	<0.01	<0.013	0.019 J	<0.015	<0.0065
PCB179	EPA 1668A	ng/L				0.0069 J	<0.01	<0.0077	<0.0099	<0.032	0.013 J	0.0059 J
PCB18+30	EPA 1668A	ng/L				0.014 J	<0.039	<0.018	<0.014	0.042 J	0.027 J	<0.014
PCB180+193	EPA 1668A	ng/L				0.0235 J	0.0263 J	0.0445 J	0.049 J	0.24	0.065 J	<0.02
PCB181	EPA 1668A	ng/L				<0.0087	<0.0097	<0.0091	<0.012	<0.011	<0.013	<0.0093
PCB182	EPA 1668A	ng/L				<0.0084	<0.014	<0.01	<0.014	<0.011	<0.015	<0.0068
PCB183	EPA 1668A	ng/L				0.0085 J	0.0092 J	0.0121 J	0.017 J	0.0668 J	0.02 J	<0.0081
PCB184	EPA 1668A	ng/L				<0.0062	<0.01	<0.0077	<0.0099	<0.0082	<0.011	<0.005
PCB185	EPA 1668A	ng/L				<0.009	<0.01	<0.0095	<0.013	<0.011	<0.014	<0.0097
PCB186	EPA 1668A	ng/L				<0.0062	<0.0099	<0.0077	<0.0099	<0.0082	<0.011	<0.005
PCB187	EPA 1668A	ng/L				0.0147 J	0.019 J	0.027 J	0.031 J	0.12	0.032 J	<0.011
PCB188	EPA 1668A	ng/L				<0.007	<0.011	<0.0087	<0.011	<0.0093	<0.013	<0.0057
PCB189	EPA 1668A	ng/L				<0.0068	<0.0079	<0.01	<0.01	<0.012	<0.0077	<0.0085
PCB19	EPA 1668A	ng/L				<0.014	<0.043	<0.019	<0.015	<0.017	<0.015	<0.016
PCB190	EPA 1668A	ng/L				<0.0072	<0.008	<0.0076	<0.01	0.0261 J	<0.011	<0.0077
PCB191	EPA 1668A	ng/L				<0.0072	<0.0081	<0.0076	<0.01	<0.0089	<0.011	<0.0077
PCB192	EPA 1668A	ng/L				<0.0077	<0.0085	<0.008	<0.011	<0.0094	<0.012	<0.0082
PCB194	EPA 1668A	ng/L				<0.012	<0.012	<0.015	<0.015	0.058 J	<0.019	<0.01
PCB195	EPA 1668A	ng/L				<0.013	<0.012	<0.015	<0.016	0.023 J	<0.02	<0.011
PCB196	EPA 1668A	ng/L				<0.012	<0.013	<0.015	<0.016	<0.024	<0.015	<0.0074
PCB197	EPA 1668A	ng/L				<0.01	<0.011	<0.013	<0.013	<0.013	<0.013	<0.0061
PCB198+199	EPA 1668A	ng/L				<0.012	<0.013	<0.016	0.016 J	0.067 J	<0.015	<0.0074
PCB2	EPA 1668A	ng/L				<0.019	<0.058	<0.031	<0.0086	<0.018	<0.018	<0.015
PCB20+28	EPA 1668A	ng/L				0.0261 J	0.03 J	0.0278 J	0.0286 J	0.0724 J	0.0386 J	0.0126 J
PCB200	EPA 1668A	ng/L				<0.0093	<0.0096	<0.012	<0.012	<0.012	<0.012	<0.0056
PCB201	EPA 1668A	ng/L				<0.0096	<0.0099	<0.012	<0.012	<0.012	<0.012	<0.0057
PCB202	EPA 1668A	ng/L				<0.011	<0.011	<0.014	<0.014	<0.015	<0.014	<0.0066
PCB203	EPA 1668A	ng/L				<0.012	<0.012	<0.015	<0.015	0.038 J	<0.015	<0.007
PCB204	EPA 1668A	ng/L				<0.0099	<0.01	<0.012	<0.013	<0.013	<0.012	<0.0059
PCB205	EPA 1668A	ng/L				<0.011	<0.01	<0.013	<0.013	<0.013	<0.017	<0.0092
PCB206	EPA 1668A	ng/L				<0.012	<0.018	<0.013	<0.017	<0.042	<0.017	<0.013
PCB207	EPA 1668A	ng/L				<0.011	<0.015	<0.011	<0.014	<0.023	<0.015	<0.011
PCB208	EPA 1668A	ng/L				<0.013	<0.019	<0.014	<0.017	<0.028	<0.018	<0.014
PCB209	EPA 1668A	ng/L				<0.013	<0.04	<0.021	<0.032	0.042 J	<0.023	<0.01
PCB21+33	EPA 1668A	ng/L				<0.0075	<0.012	0.0085 J	0.009 J	0.0253 J	0.0162 J	<0.0047
PCB22	EPA 1668A	ng/L				<0.0055	<0.013	0.0071 J	0.007 J	0.0225 J	0.0113 J	<0.005
PCB23	EPA 1668A	ng/L				<0.0052	<0.013	<0.0067	<0.0061	<0.0062	<0.007	<0.0049
PCB24	EPA 1668A	ng/L				<0.012	<0.038	<0.017	<0.013	<0.015	<0.013	<0.014

Table 6: Summary of Oxford Retention Basin Dry Weather Water Quality Chemistry

Parameter	Method	Units	COP	CTR Freshwater	CTR Saltwater	Saltwater						Freshwater
						Basin E	Basin E	Basin E Exchange	Oxford Basin	Oxford Basin	Oxford Exchange	Boone Olive
						BASIN E -D -1	BASIN E -D -2	X -BASIN E -D -2	ORB -D -1	ORB -D -2	X -ORB -D -1	BO -D -1
PCB25	EPA 1668A	ng/L				<0.0046	<0.011	<0.0059	<0.0054	<0.0055	<0.0062	<0.0043
PCB26+29	EPA 1668A	ng/L				<0.0048	<0.012	<0.0062	<0.0056	0.0114 J	<0.0065	<0.0046
PCB27	EPA 1668A	ng/L				<0.012	<0.036	<0.016	<0.012	<0.014	<0.012	<0.013
PCB3	EPA 1668A	ng/L				<0.019	<0.056	<0.03	<0.0083	<0.017	<0.017	<0.014
PCB31	EPA 1668A	ng/L				0.0157 J	0.017 J	0.0201 J	<0.02	0.0667 J	0.0309 J	0.0127 J
PCB32	EPA 1668A	ng/L				<0.011	<0.033	<0.015	<0.011	0.016 J	<0.011	<0.012
PCB34	EPA 1668A	ng/L				<0.0049	<0.012	<0.0063	<0.0057	<0.0059	<0.0066	<0.0046
PCB35	EPA 1668A	ng/L				<0.0049	<0.012	<0.0063	<0.0058	<0.0059	<0.0066	<0.0047
PCB36	EPA 1668A	ng/L				<0.0044	<0.011	<0.0057	<0.0052	<0.0053	<0.0059	<0.0042
PCB37	EPA 1668A	ng/L				<0.0062	<0.015	<0.008	<0.0073	0.0218 J	0.0118 J	<0.0059
PCB38	EPA 1668A	ng/L				<0.005	<0.012	<0.0064	<0.0058	<0.006	<0.0067	<0.0047
PCB39	EPA 1668A	ng/L				<0.0047	<0.012	<0.0061	<0.0056	<0.0057	<0.0064	<0.0045
PCB4	EPA 1668A	ng/L				<0.04	<0.071	<0.026	<0.021	<0.027	<0.018	<0.023
PCB40+41+71	EPA 1668A	ng/L				0.0159 J	<0.015	0.0165 J	0.02 J	<0.065	<0.022	<0.0086
PCB42	EPA 1668A	ng/L				0.0079 J	<0.012	<0.0093	<0.011	<0.032	0.0128 J	<0.0089
PCB43	EPA 1668A	ng/L				<0.0086	<0.013	<0.011	<0.013	<0.011	<0.01	<0.01
PCB44+47+65	EPA 1668A	ng/L				0.0432 J	0.042 J	0.051 J	0.0821 J	0.263 J	0.07 J	0.012 J
PCB45+51	EPA 1668A	ng/L				<0.0068	<0.011	<0.0085	<0.01	<0.016	<0.0081	<0.0082
PCB46	EPA 1668A	ng/L				<0.0078	<0.012	<0.0098	<0.012	<0.01	<0.0093	<0.0094
PCB48	EPA 1668A	ng/L				<0.007	<0.011	<0.0088	<0.01	<0.018	0.0095 J	<0.0084
PCB49+69	EPA 1668A	ng/L				<0.025	0.0266 J	0.0338 J	0.0402 J	0.146 J	<0.036	<0.0072
PCB5	EPA 1668A	ng/L				<0.02	<0.021	<0.02	<0.0062	<0.016	<0.012	<0.0098
PCB50+53	EPA 1668A	ng/L				0.0084 J	<0.01	<0.0082	<0.0098	0.0239 J	0.0082 J	<0.0079
PCB52	EPA 1668A	ng/L				0.0515 J	0.068 J	0.0953 J	0.12	0.57	0.14	0.0156 J
PCB54	EPA 1668A	ng/L				<0.012	<0.039	<0.015	<0.02	<0.021	<0.019	<0.0095
PCB55	EPA 1668A	ng/L				<0.0063	<0.0095	<0.0094	<0.0096	<0.0073	<0.01	<0.011
PCB56	EPA 1668A	ng/L				0.0113 J	0.0156 J	0.0121 J	<0.013	0.0568 J	0.0194 J	<0.01
PCB57	EPA 1668A	ng/L				<0.0054	<0.0082	<0.0081	<0.0083	<0.0063	<0.0088	<0.0093
PCB58	EPA 1668A	ng/L				<0.0056	<0.0085	<0.0084	<0.0085	<0.0065	<0.0091	<0.0096
PCB59+62+75	EPA 1668A	ng/L				<0.0056	<0.0086	<0.007	<0.0083	<0.0071	<0.0066	<0.0067
PCB6	EPA 1668A	ng/L				<0.018	<0.019	<0.018	<0.0056	<0.015	<0.011	<0.0089
PCB60	EPA 1668A	ng/L				<0.006	<0.0091	<0.009	<0.0092	0.0312 J	<0.011	<0.01
PCB61+70+74+76	EPA 1668A	ng/L				0.0388 J	0.059 J	0.0707 J	0.0839 J	0.399 J	0.0951 J	0.019 J
PCB63	EPA 1668A	ng/L				<0.0052	<0.0079	<0.0078	<0.008	<0.0061	<0.0085	<0.009
PCB64	EPA 1668A	ng/L				0.0136 J	0.0142 J	0.0176 J	0.0207 J	0.0896 J	0.0231 J	<0.0066
PCB66	EPA 1668A	ng/L				0.0296 J	0.0425 J	0.0353 J	0.0433 J	0.14	0.0414 J	<0.0094
PCB67	EPA 1668A	ng/L				<0.0051	<0.0078	<0.0077	<0.0079	<0.006	<0.0084	<0.0088
PCB68	EPA 1668A	ng/L				<0.0051	<0.0078	<0.0077	<0.0079	<0.006	<0.0084	<0.0088
PCB7	EPA 1668A	ng/L				<0.018	<0.019	<0.018	<0.0057	<0.015	<0.011	<0.009

Table 6: Summary of Oxford Retention Basin Dry Weather Water Quality Chemistry

Parameter	Method	Units	COP	CTR Freshwater	CTR Saltwater	Saltwater						Freshwater
						Basin E	Basin E	Basin E Exchange	Oxford Basin	Oxford Basin	Oxford Exchange	Boone Olive
						BASIN E -D -1	BASIN E -D -2	X -BASIN E -D -2	ORB -D -1	ORB -D -2	X -ORB -D -1	BO -D -1
PCB72	EPA 1668A	ng/L				<0.0052	<0.0079	<0.0078	<0.008	<0.0061	<0.0085	<0.009
PCB73	EPA 1668A	ng/L				<0.0055	<0.0085	<0.0068	<0.0082	<0.007	<0.0065	<0.0066
PCB77	EPA 1668A	ng/L				<0.0074	<0.011	<0.011	<0.011	0.0385 J	<0.012	<0.013
PCB78	EPA 1668A	ng/L				<0.0056	<0.0085	<0.0084	<0.0086	<0.0065	<0.0091	<0.0096
PCB79	EPA 1668A	ng/L				<0.0048	<0.0073	<0.0072	<0.0074	0.007 J	<0.0078	<0.0083
PCB8	EPA 1668A	ng/L				<0.017	<0.018	<0.017	<0.0053	0.02 J	<0.011	<0.0084
PCB80	EPA 1668A	ng/L				<0.005	<0.0075	<0.0074	<0.0076	<0.0058	<0.0081	<0.0085
PCB81	EPA 1668A	ng/L				<0.0074	<0.011	<0.011	<0.011	<0.0086	<0.012	<0.013
PCB82	EPA 1668A	ng/L				<0.0084	<0.0076	<0.0095	0.0161 J	0.0839 J	0.0172 J	<0.0054
PCB83+99	EPA 1668A	ng/L				0.0424 J	0.0502 J	0.0669 J	0.0767 J	0.38	0.0676 J	0.0206 J
PCB84	EPA 1668A	ng/L				0.0137 J	<0.017	0.0286 J	0.0353 J	0.2	0.0407 J	<0.0054
PCB85+116+117	EPA 1668A	ng/L				0.0073 J	0.007 J	0.015 J	0.0194 J	0.0923 J	0.0201 J	<0.0039
PCB86+87+97+109+119+125	EPA 1668A	ng/L				0.0435 J	0.0578 J	0.0816 J	0.1 J	0.498 J	0.0984 J	0.0281 J
PCB88+91	EPA 1668A	ng/L				<0.0073	<0.0087	0.0147 J	0.0175 J	0.0932 J	0.0164 J	<0.0047
PCB89	EPA 1668A	ng/L				<0.0078	<0.0071	<0.0088	<0.0088	<0.0081	<0.0081	<0.005
PCB9	EPA 1668A	ng/L				<0.018	<0.019	<0.018	<0.0057	<0.015	<0.011	<0.009
PCB90+101+113	EPA 1668A	ng/L				0.0666 J	0.0887 J	0.124 J	0.127 J	0.66	0.138 J	0.0329 J
PCB92	EPA 1668A	ng/L				<0.011	<0.017	0.0231 J	0.0272 J	0.12	0.0264 J	<0.0052
PCB93+98+100+102	EPA 1668A	ng/L				<0.0074	<0.0067	<0.0084	<0.0083	0.0243 J	<0.0076	<0.0048
PCB94	EPA 1668A	ng/L				<0.008	<0.0073	<0.0091	<0.009	<0.0083	<0.0083	<0.0052
PCB95	EPA 1668A	ng/L				0.0513 J	0.063 J	0.0866 J	0.11	0.58	0.12	0.0235 J
PCB96	EPA 1668A	ng/L				<0.0071	<0.016	<0.0097	<0.012	<0.014	<0.0098	<0.0065
Total PCBs for EPA1668A	Calculation	ng/L				0.9433	1.2081	1.651	2.0599	11.1501	2.3804	0.3686
Volatile Organic Compounds												
1,1,1-Trichloroethane (TCA)	EPA 624	µg/L				<0.0365	<0.0365	<0.0365	<0.0365	<0.0365	<0.0365	<0.0365
1,1,2,2-Tetrachloroethane	EPA 624	µg/L				<0.0228	<0.0228	<0.0228	<0.0228	<0.0228	<0.0228	<0.0228
1,1,2-Trichloroethane	EPA 624	µg/L				<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031
1,1-Dichloroethane	EPA 624	µg/L				<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076
1,1-Dichloroethene	EPA 624	µg/L				<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177
1,2-Dichlorobenzene	EPA 624	µg/L				<0.019	<0.019	<0.019	0.1 J	<0.019	<0.019	<0.019
1,2-Dichloroethane (EDC)	EPA 624	µg/L				<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031
1,2-Dichloropropane	EPA 624	µg/L				<0.0266	<0.0266	<0.0266	<0.0266	<0.0266	<0.0266	<0.0266
1,3-Dichlorobenzene	EPA 624	µg/L				<0.0283	<0.0283	<0.0283	0.1 J	<0.0283	<0.0283	<0.0283
1,4-Dichlorobenzene	EPA 624	µg/L				<0.031	<0.031	<0.031	0.2 J	<0.031	<0.031	<0.031
2-Chloroethyl Vinyl Ether (2-CVE)	EPA 624	µg/L				<0.0951	<0.0951	<0.0951	<0.0951	<0.0951	<0.0951	<0.0951
Acrolein	EPA 624	µg/L				<0.8217	<0.8217	<0.8217	<0.8217	<0.8217	<0.8217	<0.8217
Acrylonitrile	EPA 624	µg/L				<1.401	<1.401	<1.401	<1.401	<1.401	<1.401	<1.401
Benzene	EPA 624	µg/L				<0.0118	<0.0118	<0.0118	<0.0118	<0.0118	<0.0118	<0.0118
Bromodichloromethane	EPA 624	µg/L				<0.0281	<0.0281	<0.0281	<0.0281	<0.0281	<0.0281	<0.0281

Table 6: Summary of Oxford Retention Basin Dry Weather Water Quality Chemistry

Parameter	Method	Units	COP	CTR Freshwater	CTR Saltwater	Saltwater						Freshwater
						Basin E	Basin E	Basin E Exchange	Oxford Basin	Oxford Basin	Oxford Exchange	Boone Olive
						BASIN E -D -1	BASIN E -D -2	X -BASIN E -D -2	ORB -D -1	ORB -D -2	X -ORB -D -1	BO -D -1
Bromoform	EPA 624	µg/L				<0.0347	<0.0347	<0.0347	<0.0347	<0.0347	<0.0347	<0.0347
Bromomethane (Methyl Bromide)	EPA 624	µg/L				0.3 J, B	0.2 J, B	0.3 J, B	0.5 B	0.2 J, B	0.4 J, B	0.4 J, B
Carbon Tetrachloride	EPA 624	µg/L				<0.0323	<0.0323	<0.0323	<0.0323	<0.0323	<0.0323	<0.0323
Chlorobenzene	EPA 624	µg/L				<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019
Chloroethane (Ethyl Chloride)	EPA 624	µg/L				<0.0583	<0.0583	<0.0583	<0.0583	<0.0583	<0.0583	<0.0583
Chloroform	EPA 624	µg/L				<0.1795	<0.1795	<0.1795	<0.1795	0.2 J	<0.1795	<0.1795
Chloromethane (Methyl Chloride)	EPA 624	µg/L				<0.0763 J	<0.0763	<0.0763	<0.0763 J	<0.0763	<0.0763 J	<0.0763 J
Dibromochloromethane	EPA 624	µg/L				<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021
Dichlorodifluoromethane (F12)	EPA 624	µg/L				<0.0654	<0.0654	<0.0654	<0.0654	<0.0654	<0.0654	<0.0654
Ethylbenzene	EPA 624	µg/L				<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156
Methyl-t-Butyl Ether (MTBE)	EPA 624	µg/L				<0.1318	<0.1318	<0.1318	<0.1318	<0.1318	<0.1318	<0.1318
Methylene Chloride	EPA 624	µg/L				0.6 J	0.4 J	0.6 J	0.6 J	0.5 J	0.5 J	1
Tetrachloroethene (PCE)	EPA 624	µg/L				<0.0167	0.3 J	<0.0167	<0.0167	0.2 J	0.1 J	8.8
Toluene	EPA 624	µg/L				<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014
Trichloroethene (TCE)	EPA 624	µg/L				<0.0277	<0.0277	<0.0277	<0.0277	0.2 J	0.1 J	0.3 J
Trichlorofluoromethane (F11)	EPA 624	µg/L				<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312
Vinyl Chloride	EPA 624	µg/L				<0.0983	<0.0983	<0.0983	<0.0983	<0.0983	<0.0983	<0.0983
c-1,2-Dichloroethene	EPA 624	µg/L				<0.0215	<0.0215	<0.0215	<0.0215	<0.0215	<0.0215	0.3 J
c-1,3-Dichloropropene	EPA 624	µg/L				<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198
o-Xylene	EPA 624	µg/L				<0.0152	<0.0152	<0.0152	<0.0152	<0.0152	<0.0152	<0.0152
p/m-Xylene	EPA 624	µg/L				<0.0201	<0.0201	<0.0201	0.1 J	<0.0201	<0.0201	<0.0201
t-1,2-Dichloroethene	EPA 624	µg/L				<0.0403	<0.0403	<0.0403	<0.0403	<0.0403	<0.0403	<0.0403
t-1,3-Dichloropropene	EPA 624	µg/L				<0.0218	<0.0218	<0.0218	<0.0218	<0.0218	<0.0218	<0.0218

< = Results less than the method detection limit.

B = Analyte was detected in the associated method blank.

H = Samples received and/or analyzed past the recommended holding time.

J = Analyte was detected at a concentration below the reporting limit and above the method detection limit. Reported value is an estimate.

* = Fecal coliform/total coliform ratio exceeds 0.1 therefore total coliform criteria becomes 1,000 MPN/100 mL.

(a) = Water Quality Benchmark for dissolved metal fractions are based on a default water effects ratios (WER) value of 1 and are calculated as described by the USEPA Federal Register Doc. 40 CFR Part 131, May 18, 2000.

(b) = Water Quality Benchmark for dissolved metal fractions are based on total hardness and are calculated as described by the USEPA Federal Register Doc. 40 CFR Part 131, May 18, 2000. The Criteria Maximum Concentration (CMC) was used.

(c) = Water Quality Benchmark for Pentachlorophenol is based on pH as described by the USEPA Federal Register Doc. 40 CFR Part 131, May 18, 2000. the Criteria Maximum Concentration (CMC) was used.

Appendix A: Field Notes