

To:

Grant Trigger, RACER

Copies:

Tony Maffeo, Arcadis

Arcadis of Michigan, LLC

28550 Cabot Drive

Suite 500

Novi

Michigan 48377

Tel 248 994 2240

Fax 248 994 2241

From:

Micki Maki

Chris Peters

Date:

June 6, 2019

Arcadis Project No.:

B0064410.2019

Subject:

Outfall 001, 005A and 006 Dry- and Wet-Weather Sample Results
RACER Buick City Site Flint, Michigan

This memo summarizes the results of the continued investigation activities to assess areas of potential per- and poly-fluoroalkyl substances (PFAS) impacts at the RACER Buick City Site (the Site) located in Flint, Michigan.

Please note that the portion of the Buick City Site that currently drains to Outfall 001 was sold to American SpiralWeld (ASW) in 2014. Therefore, this property is referred to herein as the ASW property.

OUTFALL 001

In April 2019 both a dry weather and a wet weather sample were collected from Outfall 001 at the Flint River, located approximately 3,000 feet downgradient of the ASW property and analyzed for PFAS. The laboratory reported the following results:

Analyte	Outfall 001	
	Dry Weather Result (ng/L)	Wet Weather Result (ng/L)
PFOA	32	6.2
PFOS	30	7.9

While the dry weather sample detected PFOS at a concentration (32 ppt) that exceeded the groundwater surface water interface criteria(GSI) of 12 nanograms per liter (ng/L), the wet weather sample did not exceed criteria. The sample location and an outline of the Outfall 001 drainage area are shown on the attached **Figure 1**. Note that there are multiple other properties/potential contributors between the ASW property and Outfall 001.

OUTFALL 005A

In April 2019 Outfall 005A had no flow during dry weather conditions; therefore, a dry weather sample could not be collected. A wet weather sample was collected from Outfall 005A at the Flint River, located approximately 650 feet downgradient of the Buick City Site and analyzed for PFAS compounds. The laboratory reported the following results:

Analyte	Outfall 005A
	Wet Weather Result (ng/L)
PFOA	0.86 JI
PFOS	ND

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

I - Value is the estimated maximum possible concentration

The wet weather sample did not exceed criteria. The sample location and an outline of the Outfall 005A drainage area are shown on the attached **Figure 2**. Note that there are multiple other properties that contribute to Outfall 005A.

OUTFALL 006

In April 2019 both a dry weather and a wet weather sample were collected from Outfall 006 at the Flint River, located approximately 500 feet downgradient of the Buick City Site and analyzed for PFAS compounds. The laboratory reported the following results:

Analyte	Outfall 006	
	Dry Weather Result (ng/L)	Wet Weather Result (ng/L)
PFOA	13	2.8
PFOS	96	11

While the dry weather sample detected PFOS at a concentration that exceeded the GSI of 12 ng/L and the PFOA+PFOS residential drinking water criteria (RDW) of 70 ng/L, the wet weather sample did not exceed criteria. The sample location and an outline of the Outfall 006 drainage area are shown on the attached **Figure 2**. Note that there are multiple other properties/potential contributors downgradient and adjacent to the Site.

MEMO

ONGOING SAMPLING

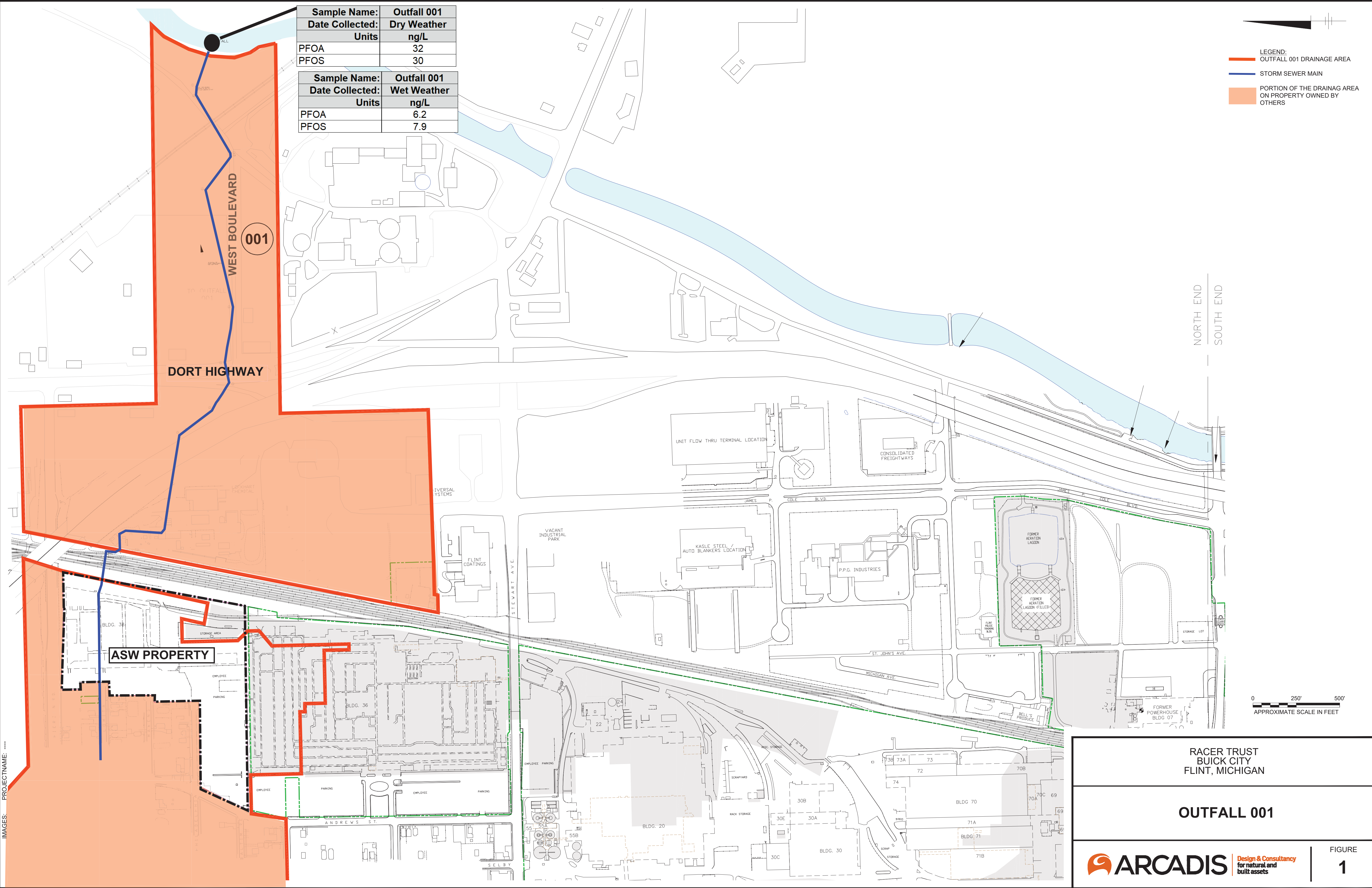
On June 5, 2019 wet weather samples were able to be collected from seven additional locations as detailed on the attached Outfall Sampling Tracking Table.

Outfall Sampling Status Summary Table
RACER Trust, Buick City Site, Flint, Michigan

Originally Published: 5/16/19
Updated: 6/5/19

Outfall	Dry Weather Sampling Status	Dry Weather Result	Wet Weather Sampling Status	Wet Weather Result	Alternate Sampling Locations	First Priority Locations
001	Completed	PFOA - 32 ng/L PFOS - 30 ng/L	Round 1 Completed	PFOA - 6.2 ng/L PFOS - 7.9 ng/L	--	
002	Waiting on Alternate Location	--	Water backed up to alternate location - 6/5/19	--	MH 2-1	X
003	Completed	PFOA - 10 ng/L PFOS - 120 ng/L	Sampled 6/5/19	--	MH 3-1	X
004	Completed	DRY	Sampled 6/5/19	--	MH 4-2	
004A	Completed	DRY	Sampled 6/5/19	--	MH 4A-1	
005	Completed	PFOA - 10 ng/L PFOS - 50 ng/L	Sampled 6/5/19	--	MH 5-1	
005A	Completed	DRY	Round 1 Completed	PFOA - 0.86 JI ng/L PFOS - ND	--	
006	Completed	PFOA - 13 ng/L PFOS - 96 ng/L	Round 1 Completed	PFOA - 2.8 ng/L PFOS - 11 ng/L	--	
007	Completed	DRY	Waiting on river level to drop	--	--	
007A	Completed	DRY	No longer raining 6/5/19	--	MH 7A-1	
008	Completed	DRY	No longer raining 6/5/19	--	MH 8-1	
010	Completed	PFOA - 200 ng/L PFOS - 2,000 ng/L	Sampled 6/5/19	--	MH 10-1	X
011	Completed	PFOA - 10 ng/L PFOS - 100 ng/L	Sampled 6/5/19	--	MH 11-6	X
012	Completed	DRY	Waiting on river level to drop	--	--	
013	Waiting on Alternate Location	--	Sampled 6/5/19	--	MH 13-2	

CITY: SYRACUSE DIV: GROUP: ENV DB: A SANCHEZ ID: ALS/GMS PIC: C S PETERS PM: C KIKER TM: C KIKER LVR: ON-OFF-REF
 C:\Users\alsanchez\OneDrive - ARCADIS\BIM 360 Docs\RACER TRUST\BUICK CITY RCRA\2018\08064410\201801-DWG\RTBC-F-1-4-DIXANE.dwg LAYOUT: 2 SAVED: 10/25/2018 10:45 AM ACADVER: 21.05 (LMS TECH) PAGES: 21 PLOTTED: 11/8/2018 11:28 AM BY: SANCHEZ, ADRIAN



Sample Name:	Outfall 001
Date Collected:	Dry Weather
Units	ng/L
PFOA	32
PFOS	30

Sample Name:	Outfall 001
Date Collected:	Wet Weather
Units	ng/L
PFOA	6.2
PFOS	7.9

LEGEND:
 — OUTFALL 001 DRAINAGE AREA
 — STORM SEWER MAIN
 — PORTION OF THE DRAINAGE AREA ON PROPERTY OWNED BY OTHERS

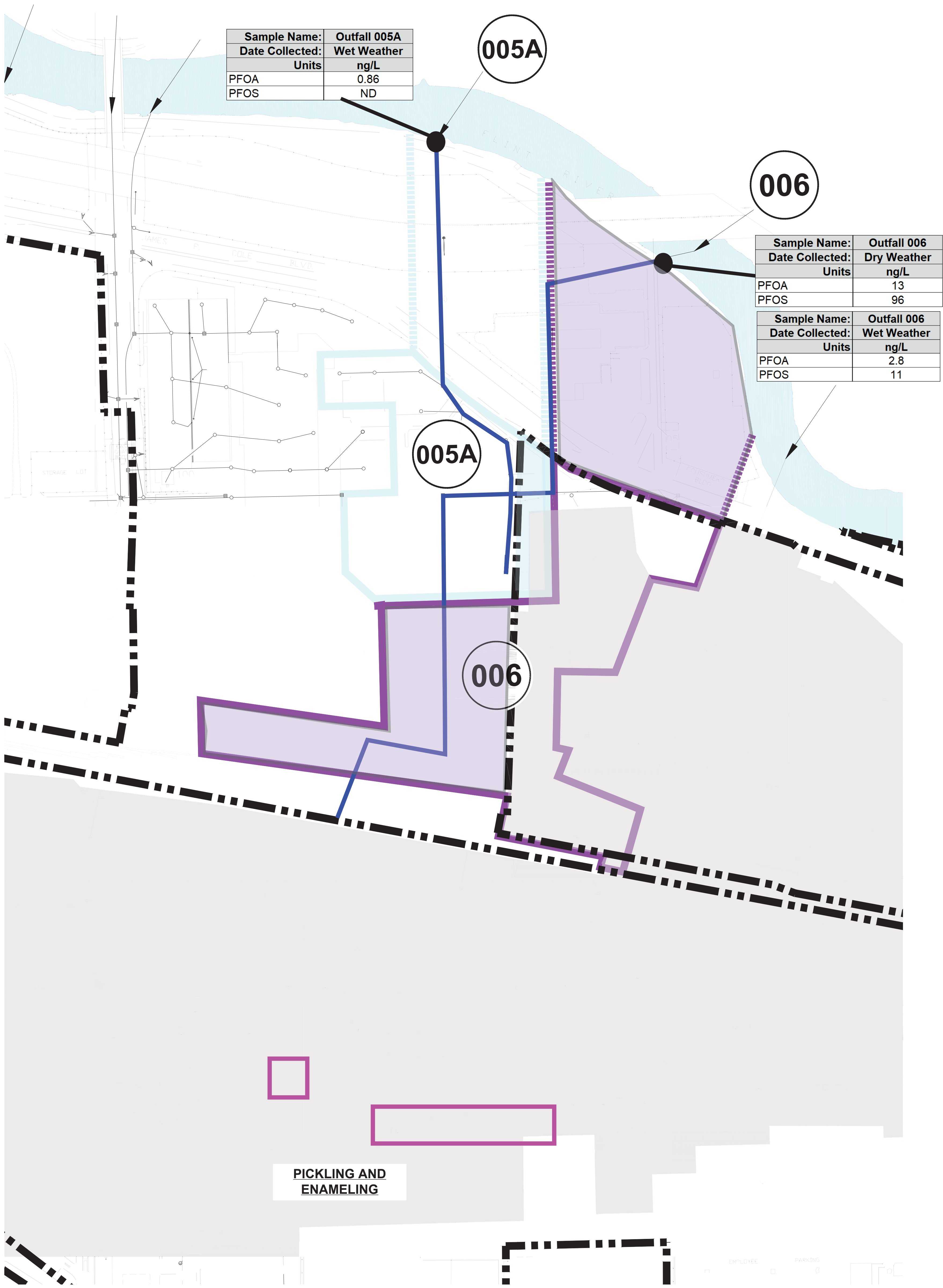
0 250' 500'
 APPROXIMATE SCALE IN FEET

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OUTFALL 001

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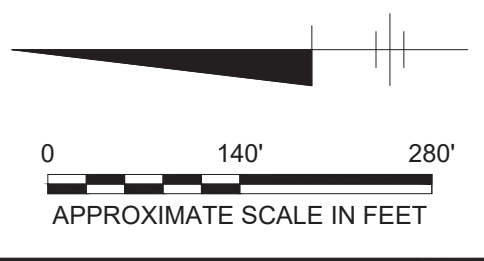
FIGURE
1



PICKLING AND ENAMELING

- LEGEND:**
- PROPERTY BOUNDARY
 - PROPERTY PREVIOUSLY OWNED BY RACER
 - AREA ASSUMED TO BE PART OF OUTFALL DRAINAGE AREA
 - AREAS WITH NO DIRECT DRAINAGE TO THE STORM SEWER
 - OUTFALL DRAINAGE AREA AND NUMBER
 - STORM SEWER MAIN
 - POTENTIAL SOURCE AREA FOR PFAS IMPACTS
 - PORTION OF DRAINAGE AREA LOCATED ON PROPERTY OWNED BY OTHERS

- NOTES:**
1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
 2. BASED ON INFORMATION AVAILABLE AS OF JUNE 2016.
 3. MH4-20-2 DOWN GRADIENT PLUG'S 24-INCH LINE WAS BLOCKED WITH SEDIMENT, YIELDING NO FLOW PRIOR TO PLUG INSTALLATION. PLUG IS MADE UP OF NATURALLY PACKED SEDIMENT IN PIPE.
 4. BULKHEADS AND PLUGS INSTALLED DECEMBER 2017.



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OUTFALL 005A AND 006

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FIGURE
2