MEMO



To:

Grant Trigger, RACER

^{Copies:} Chris Peters, Arcadis Micki Maki, Arcadis Arcadis of Michigan, LLC 28550 Cabot Drive Suite 500 Novi Michigan 48377 Tel 248 994 2240 Fax 248 994 2241

From:

Tony Maffeo, Arcadis

Date:

September 7, 2021

Arcadis Project No .:

30075935.01934

Subject: Outfall 003/004 Diversion and Treatment System Decommissioning Work Plan Buick City Site, Flint, MI

This Outfall 003/004 Diversion and Treatment System Decommissioning Work Plan (Work Plan) was prepared on behalf of Revitalizing Auto Communities Environmental Response (RACER) by Arcadis. The purpose of this work plan is to provide a justification for taking the Outfall 003/004 Diversion and Treatment System (System) out of service and provide the approach to decommission the System located at the Buick City Site (The Site) located in Flint, Michigan (**Figure 1**).

Background

The System was installed in January 2011 to control the release of light non-aqueous phase liquid (LNAPL) from the Outfall 003 and 004 storm sewer discharges to the Flint River. The system consisted of installing an oil-water separator, BaySaver[™] Separation System, conveyance piping to connect all major structures, and overflow weir installation in the existing storm sewer vaults (**Figure 2**). Following the installation of the System, additional measures were taken to eliminate LNAPL infiltration into the storm sewer system onsite. Measures have included bulkheading onsite lateral lines within the Outfall 003 drainage area, rerouting the Outfall 004 flow upgradient of the site into Outfall 013, eliminating the remaining portions of onsite storm drainage, and rerouting the Outfall 003 flow upgradient of the site to avoid LNAPL areas within the Site.

The rerouting of the Outfall 004 storm sewer into the Outfall 013 storm sewer prior to upgradient flow entering the site was completed in spring of 2015.

The Outfall 003 storm sewer reroute was completed in the Spring of 2021, which included the installation of new pipe to reroute portions of upgradient flow along the west edge of the site to avoid LNAPL and PFAS impacts within the Site.

A boom study was conducted on July 19th, 2021, with a total of four oil absorbent booms installed at 2 manholes where offsite flow enters the property, 3-52 and 3-52-4, and 2 manholes upgradient of the System, 3-6 and 3-11 (**Figure** 3). On July 22, 2021, the booms at manholes 3-6 and 3-11 were inspected and no LNAPL was observed.

Based on the various remediation measures completed at the Site and the subsequent booms studies, LNAPL release to the Outfall 003 and 004 storm sewer systems has been eliminated. As such the continued use of the System is no longer necessary and will be decommissioned.

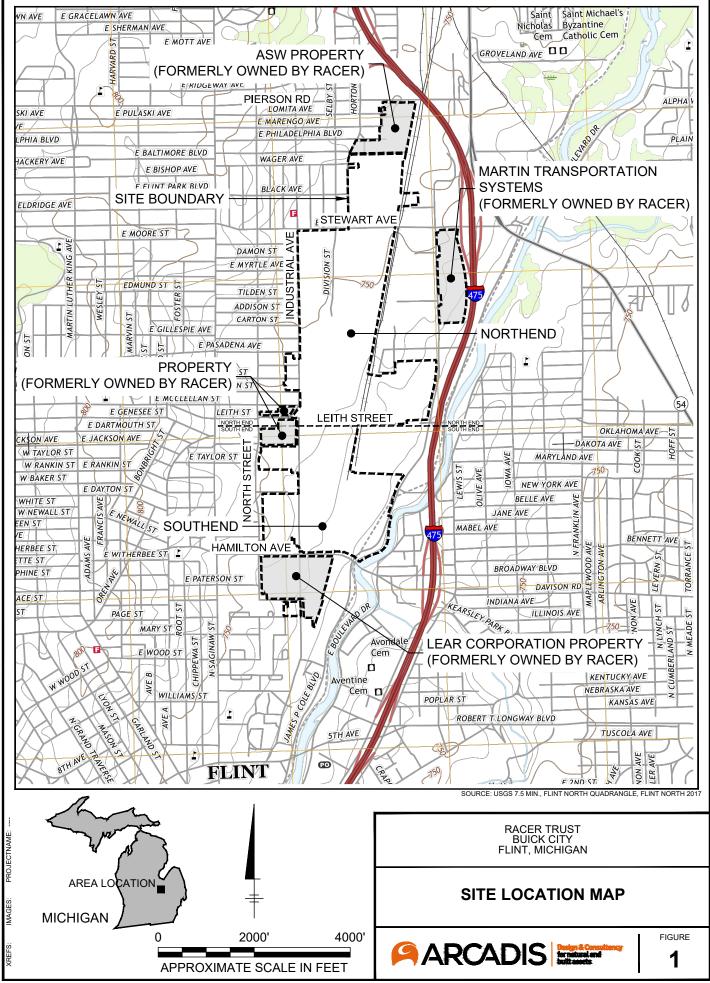
Decommissioning

Decommissioning of the System will include abandoning the System in place (**Figure 4**). HDPE pipes diverting flow from the manholes 3-6 and 4-6 vaults will be capped or plugged to stop flow from entering the system. The 16-inch HDPE discharge connection to the existing 66-inch sewer main at manhole 3-3 will be plugged. The diversion weirs in the manhole 3-6 vault will be removed and manhole 4-6 will be modified by filling or bulkheading to prevent further drainage from entering the System.

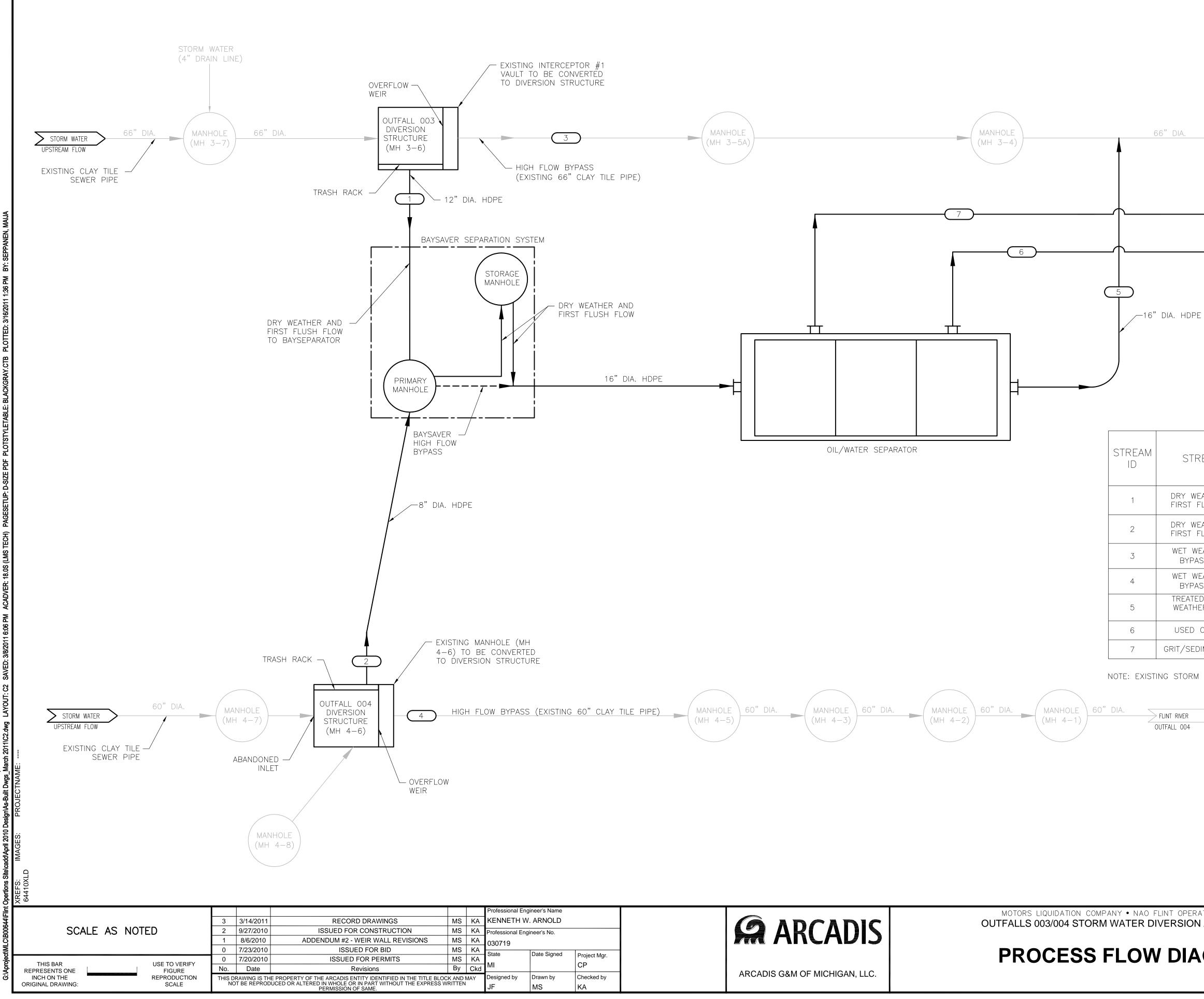
A final cleaning event would take place for the BaySaver[™] Separation System and the oil water separator, including waste removal and disposal as well as removal of any unneeded internal parts. The system would be pressure washed to remove any residual material and then flowable concrete or a similar material will be installed to approximately 5 feet below grade. The remaining area will be filled with stockpiled soils from the site.

arcadis.com

G:\COMMON\64410 RACER Buick City\Remediation\10- Final Reports and Presentations\Task 01934 outfall 003 SS reroute\003004 System Decommission\Buick City Decommission-Outfall 003 Divertion and Treatment system 090721.docx



=*REF* LYR:(Opt)ON=*;OFF: DAYOUT: 1 SAVE TM:C.KIKER LOCATION.dw PM:C.KIKER PIC:C.S.PETERS LD:GMS JICK CITY F DB:A.SANCHEZ RACER TRUST/BI DIV/GROUP:ENV ž



PROCESS FLOW DI

PERATIONS SITE FLINT, MICHIGAN	ARCADIS Project No. B0064410.2011.00100 Date MARCH 2011	C2
	ARCADIS 10559 CITATION DRIVE SUITE 100 BRIGHTON, MICHIGAN 48116 TEL. 810-229-8594	

<u>LEGEND</u>

EXISTING SEWER PIPE

(INTERMITTENT FLOW)

---- PROPOSED SEWER PIPING

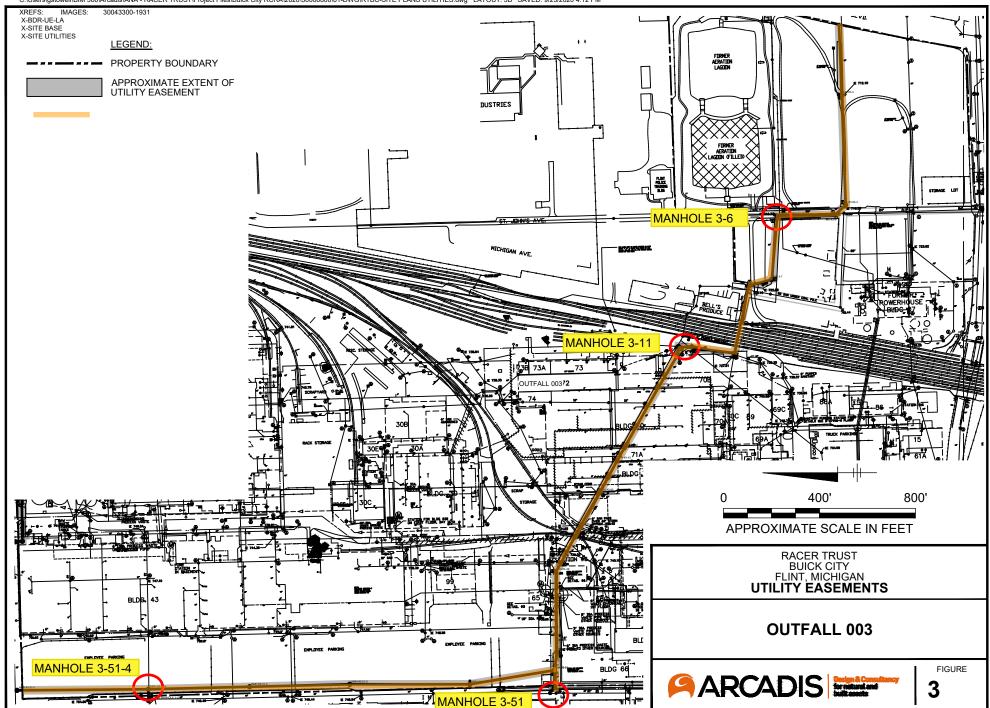
PROPOSED SEWER PIPING

NOTE: EXISTING STORM SEWER PIPING AND MANHOLES ARE SHOWN IN GRAY.

WET DRY HIGH FLOW WEATHER WEATHER RATE STREAM DESCRIPTION FLOW RATE FLOW RATE (GPM) (GPM) (GPM) DRY WEATHER AND WET WEATHER 1,500 600 900 FIRST FLUSH FROM OUTFALL 003 DRY WEATHER AND WET WEATHER 45 770 290 FIRST FLUSH FROM OUTFALL 004 WET WEATHER FLOW (HIGH FLOW 56,000 0 BYPASS) FROM OUTFALL 003 WET WEATHER FLOW (HIGH FLOW 25,000 0 0 BYPASS) FROM OUTFALL 004 TREATED DRY WEATHER AND WET WEATHER FIRST FLUSH FLOW TO OUTFALL 003 2,270 645 1,190 USED OIL (OFF-SITE DISPOSAL) PERIODIC PERIODIC ___ GRIT/SEDIMENT (OFF-SITE DISPOSAL) PERIODIC PERIODIC ___

MANHOLE 66" DIA. ightarrow Flint River (MH 3-3) OUTFALL 003 GRIT/SEDIMENT OFF-SITE DISPOSAL

→ USED OIL OFF-SITE DISPOSAL



DIV/GROUP:ENV DB:G.STOWELL LD:ALS ACADVER: 23.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 9/25/2020 4:15 PM BY: STOWELL, GARY C:\Users\gstowell\BIM 360\Arcadis\ANA - RACER TRUST\Project Files\Buick City RCRA\2020\3006800\01-DWG\RTBC-SITE PLANS UTILITIES.dwg LAYOUT: 3B SAVED: 9/25/2020 4:12 PM

