

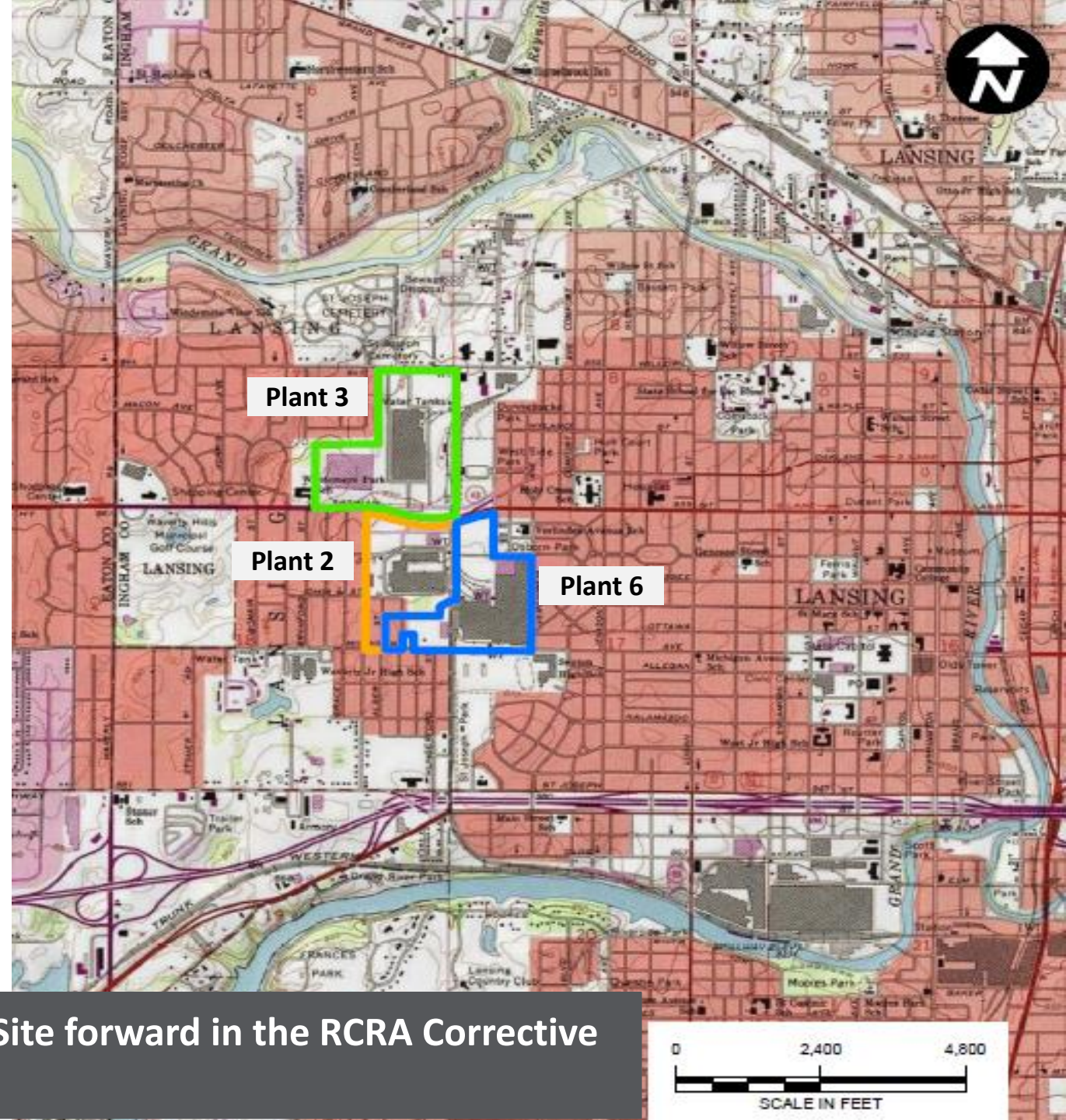
RACER TRUST LANSING PLANTS 2, 3, & 6

2Q 2020 Quarterly Progress Report | July 15, 2020



Site Introduction

- Remediation at the RACER Lansing Site is being performed through the Resource Conservation and Recovery Act (RCRA) Corrective Action program under the oversight of the Michigan Department of Environment, Great Lakes and Energy (EGLE). Current activities include focused site characterization, interim remedial actions, and evaluation of remedial alternatives.
- There is currently no known exposure pathways for area residents associated with the site contaminants.
- Characterization of the 1,4-dioxane plume in weathered bedrock at a depth of approximately 60 to 75 feet below the ground surface is complete. Interim actions for 1,4-dioxane include continued operation of the Plant 3 biosparge system and construction of the Plant 2 biosparge system. It is anticipated that portions of the Plant 2 biosparge system may need to operate for 10 to 15 years.
- Characterization of poly and per-fluorinated alkyl substances (PFAS) is ongoing. Interim actions for PFAS include storm sewer modifications on Plants 2, 3 and 6 to eliminate PFAS discharge offsite through the storm sewers.
- Vapor intrusion (VI) characterization is ongoing and will continue in the northeast portion of Plant 6 and adjacent area.
- Routine groundwater monitoring on Plants 2, 3, and 6 in the shallow (perched) zone, weathered bedrock, shallow bedrock and deep bedrock is ongoing and is anticipated to continue for 25 to 30 years.



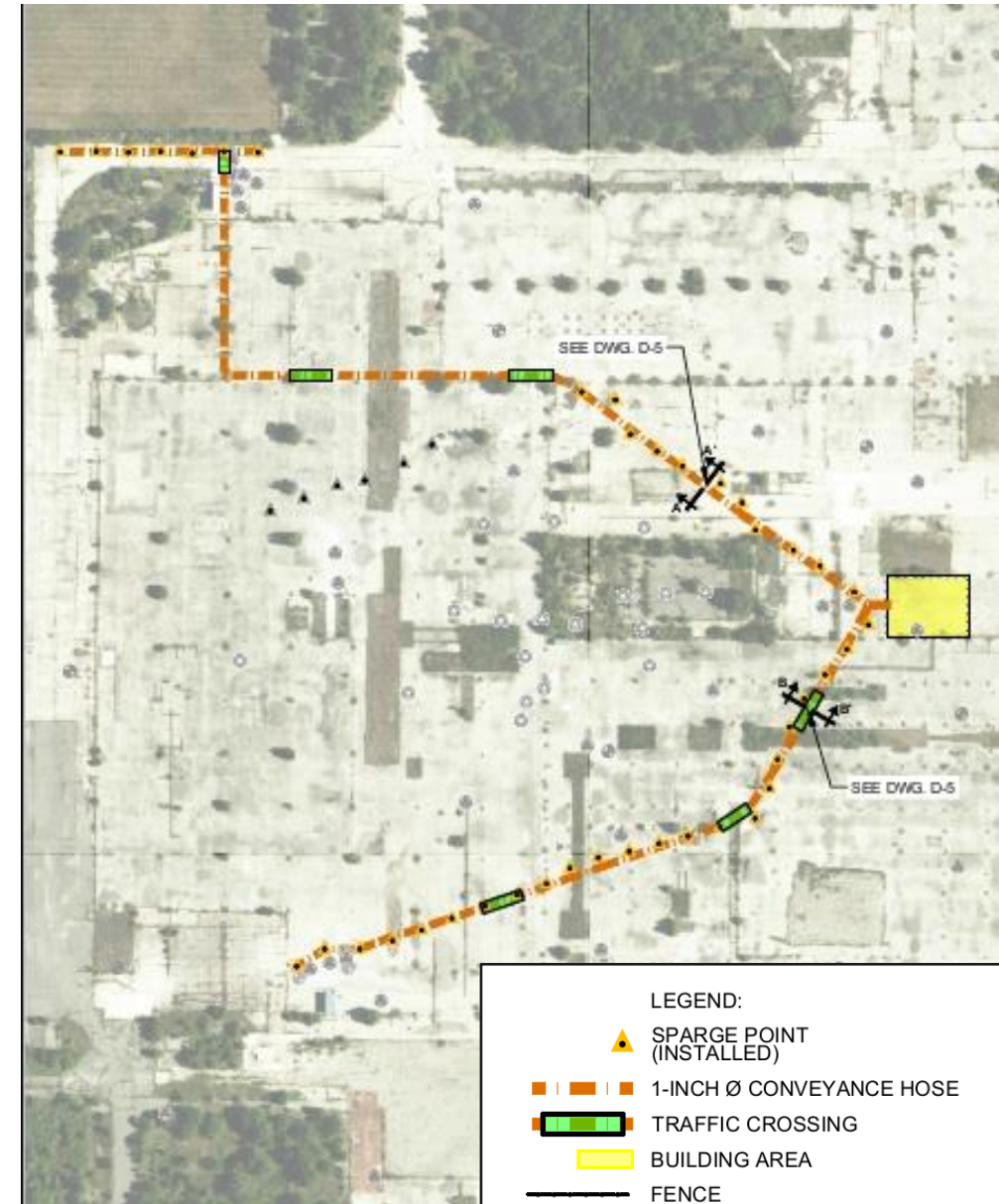
Activities completed during this period move the Site forward in the RCRA Corrective Action process

Plant 2 System Update

- Conveyance hose installation was completed in June.
- Biosparge system building was delivered in April.
- Conveyance line installation was completed in June.
- Electrical service installation was delayed due to COVID-19 but is currently scheduled to be completed in July.



On track for system start-up in late July or early August



Plant 2 Biosparge Building Area (In Progress)



Plant 2 Conveyance Hose Installation



Biosparge transect with hoses covered in gravel

© Arcadis 2020



Traffic Crossing



14 July 2020

Plant 3 Biosparge Update

The existing Plant 3 biosparge system is estimated to operate between 4 and 5 years to achieve the remedial objective for the Site.

- The Plant 3 biosparge system continued operations in 2 quarter until the air compressor presented mechanical issues on May 13. A new compressor has been installed and began running in June 2020.
- During system operations sparging 3-5 cubic feet per minute (cfm) per well, three zones, 1-hour for each zone with 1-hour rest.
- Wellhead piping was upgraded in May.
- Results indicate a 97% reduction in 1,4-dioxane concentrations within the radius of influence of the biosparge wells. Complete results will be available in the 2020 Semi-Annual Groundwater Report which is scheduled to be completed during 3Q 2020.

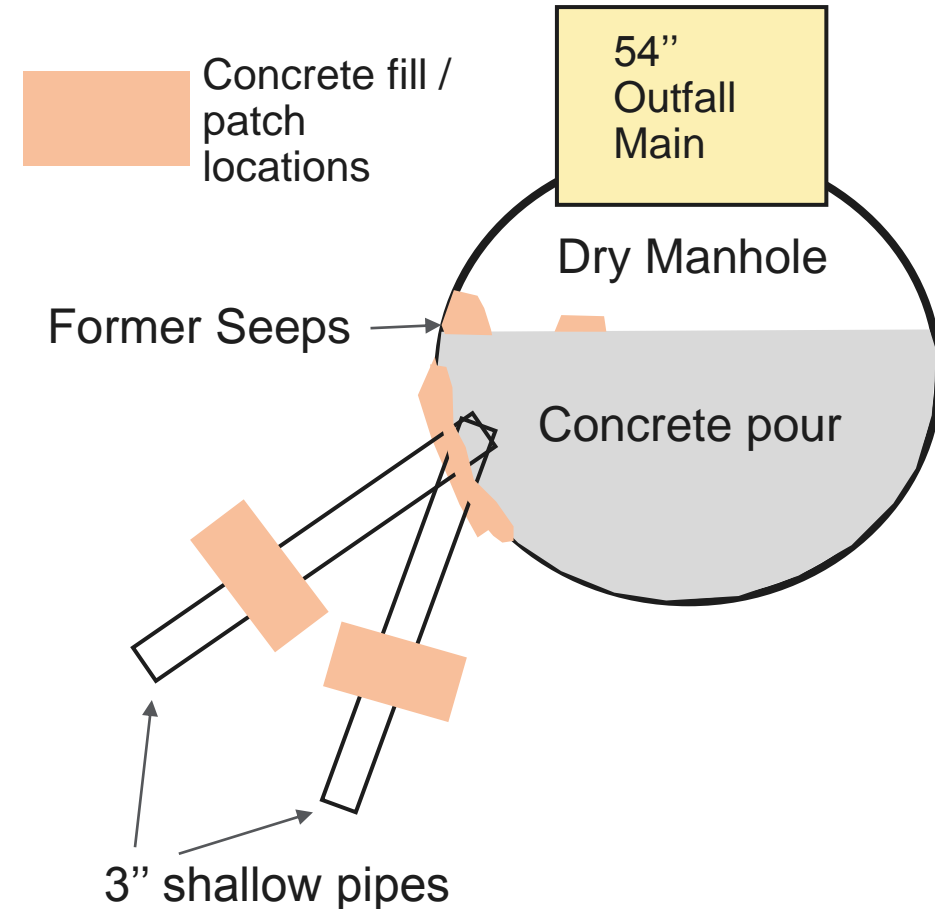


-  Manholes filled in May 2020  Manhole filled in 2019



Plant 3 PFAS Outfall Inspection & Repairs

- Inspection of Plant 3 outfall manhole conducted in January, February, March, and May
- Plugged several minor leaks in manhole structure and surficial influent pipes to prevent groundwater infiltration
- No discharge of water observed from the outfall manhole
- Video inspection of main outfall pipe completed May.



Outfall Main Video Inspection



ARCADIS Design & Consultancy for natural and built assets

Minimal sediment, signs of minor infiltration, very little flow

Obstruction, end of May inspection



Sediment accumulation increases moving north

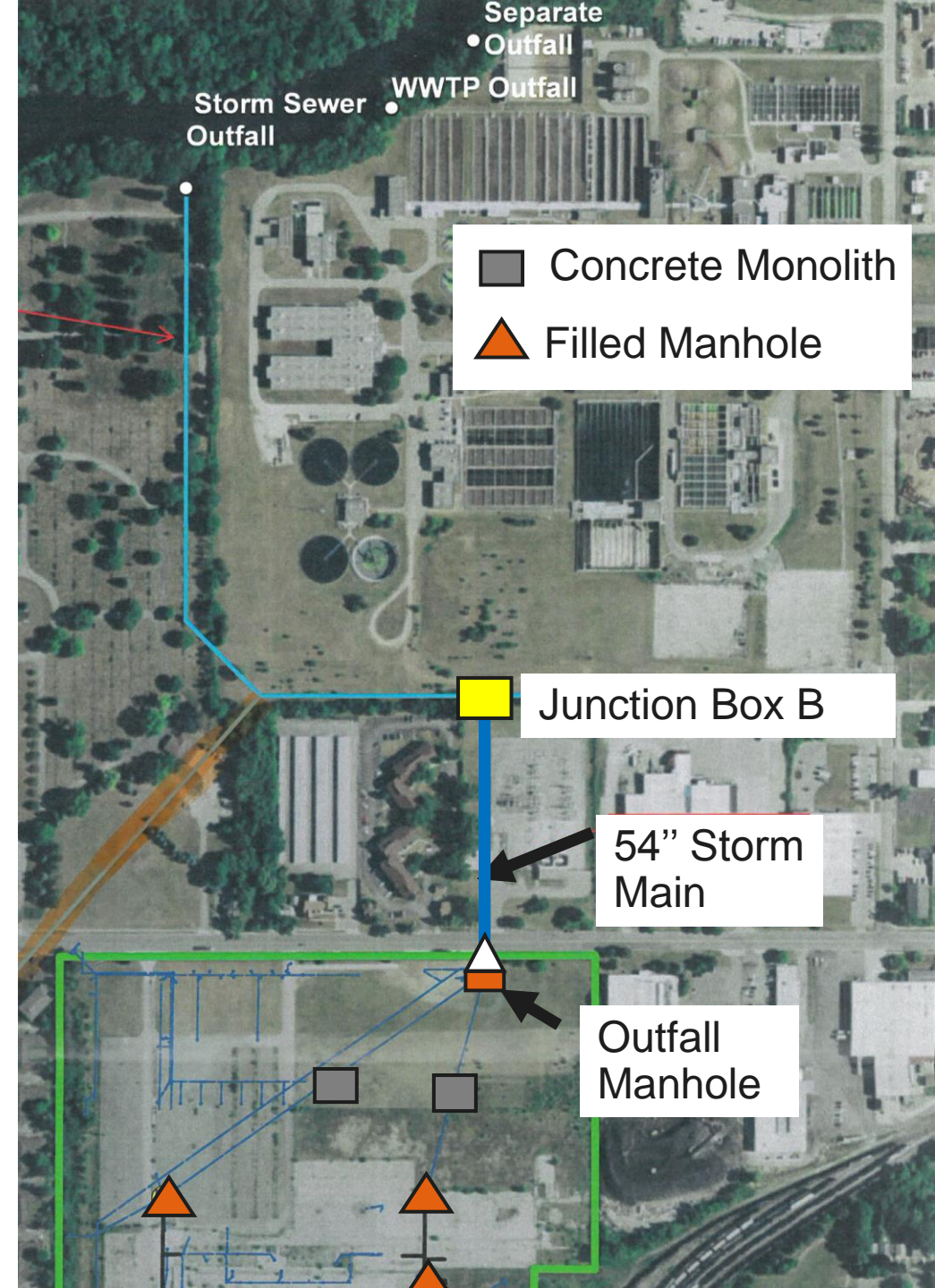


Plant 3 PFAS - Outfall Main Cleaning Summary

- In May 2020, attempted to clean the 54-inch line from the wastewater treatment plant (WWTP). Equipment, access, and water limitations prevented successful cleaning.

Proposing no further cleaning work on the 54-inch line based on:

- Limited sediment observed in the northern portion of the line
- No discharge from the RACER site, the small amount of flow observed is from offsite infiltration observed in video inspections
- Challenges/feasibility of cleaning the southern portion of the line that include:
 - Need for jet/vac trucks to pull up right next to the access manhole and the potential for equipment to damage WWTP property
 - Difficulties/feasibility of pulling back the sediment over the obstruction noted in the line

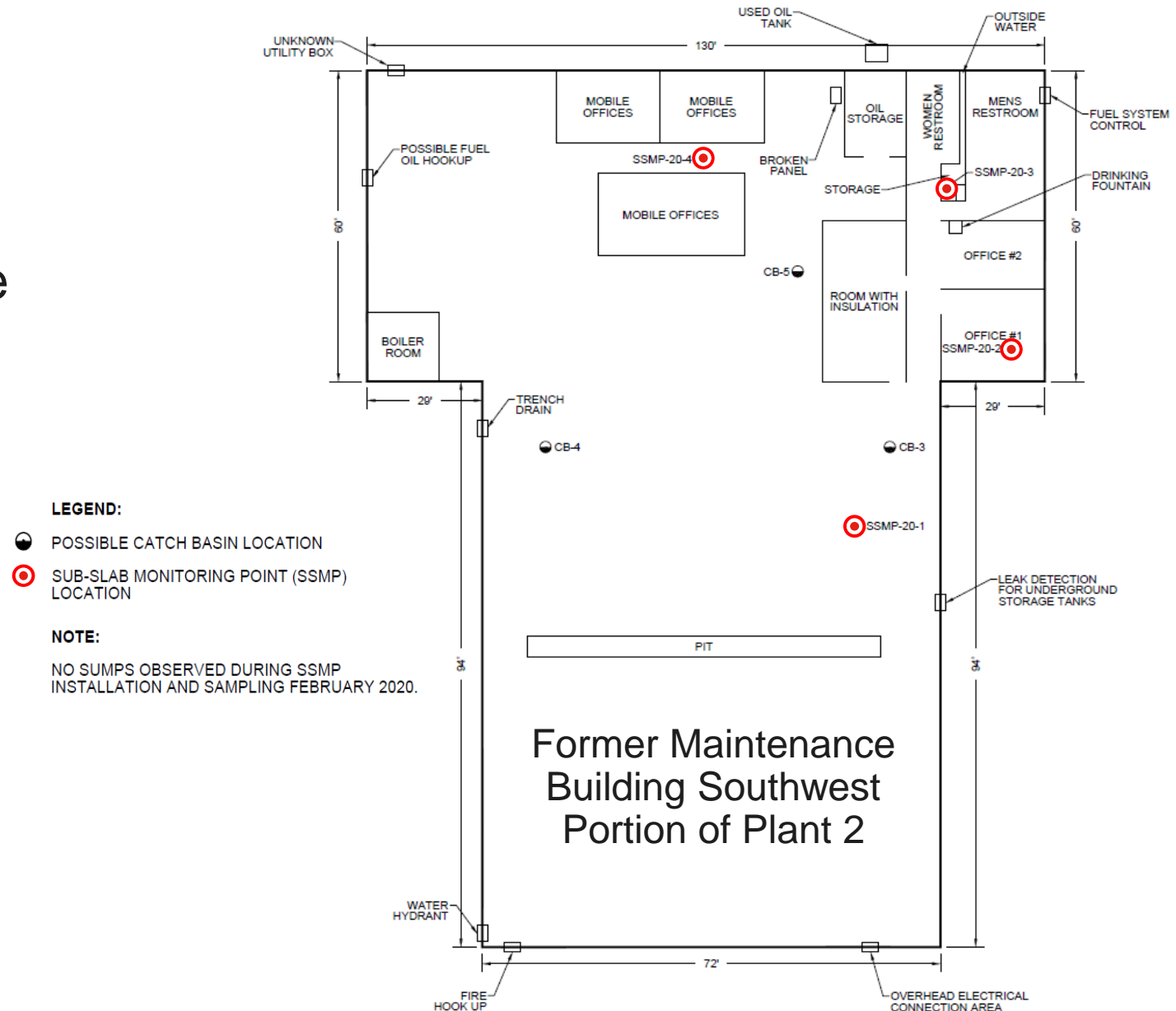


Quarterly Groundwater Monitoring – 2Q 2020

- Followed the October 2019 revised Interim Groundwater Monitoring Program (IGMP), approved by EGLE.
- The Second Quarter event was completed between June 1st and 12th, 2020.
- Sampled 138 wells for one or more of the following constituents of concern (COCs): PFAS, semi volatile organic compounds (SVOCs), volatile organic compounds (VOCs), metals and 1,4-dioxane. This included;
 - 54 wells sampled and analyzed for PFAS;
 - 22 wells sampled to help gauge the performance of the 1,4-dioxane biosparge system(s);
 - 66 wells sampled and analyzed for 1,4-dioxane. An additional 17 wells were sampled and analyzed for low level 1,4-dioxane;
 - Groundwater elevations were collected from a total of 203 wells.

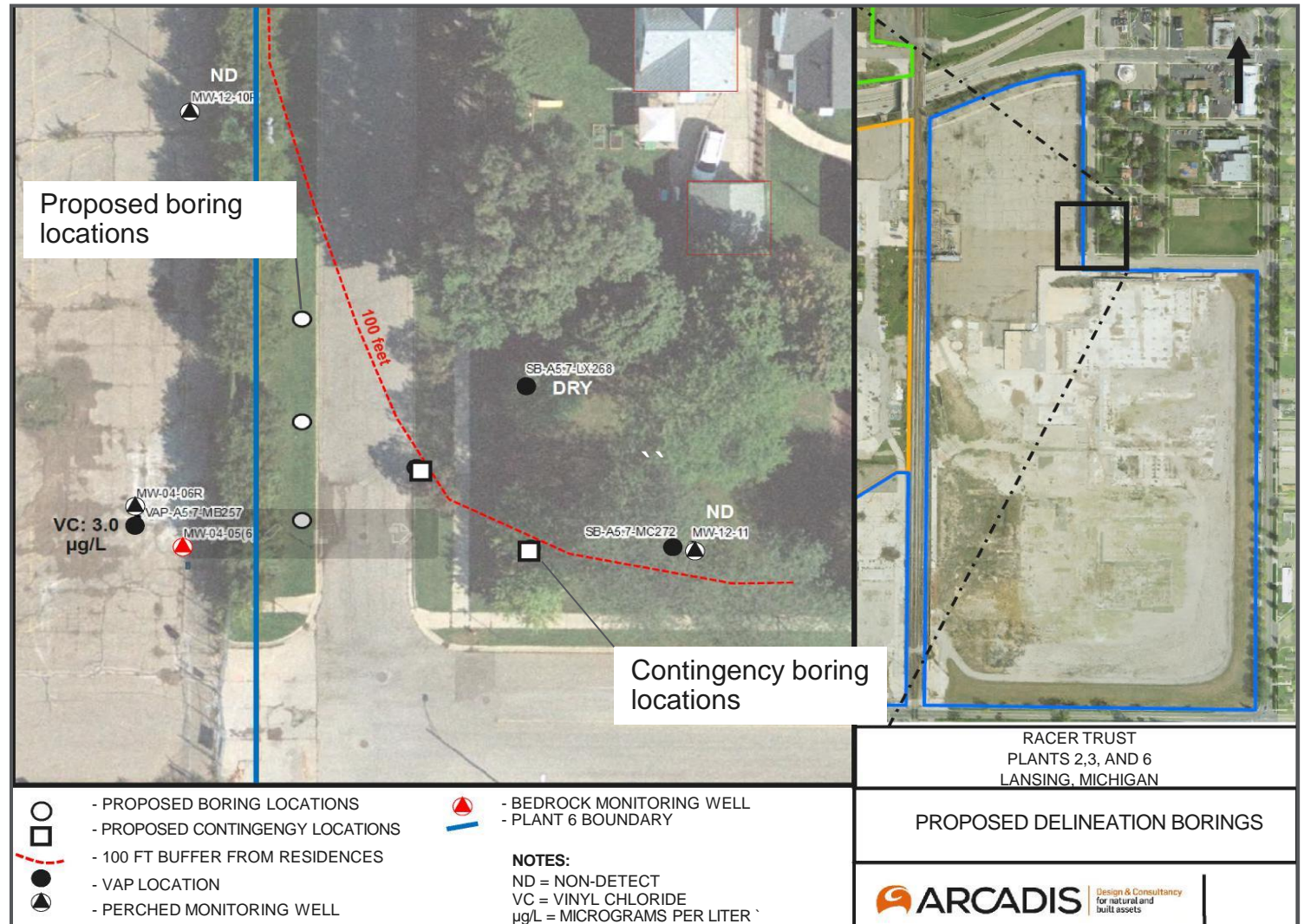
Vapor Intrusion Evaluation Summary

- Resampled the four sub slab monitoring points (SSMPs) in the building located on Plant 2 in June.
- Quarterly sampling of these SSMPs will continue for a duration of one year in accordance with the approved work plan.
- Next sampling event planned for July 2020.



Vapor Intrusion Summary continued

- Submitted Additional VI Investigation Work Plan to EGLE in May 2020.
- Proposed additional borings to evaluate vinyl chloride exceedances above site specific volatilization to indoor air criteria (SSVIAC).
- Additional VI Work plan to be implemented July 2020.



Work Plans, Reports, Data Submitted and Meetings

- Presented biosparge remediation progress update to EGLE in April 2020.
- Met via a virtual meeting with EGLE to discuss initial VI investigation results in April 2020.
- Submitted deep bedrock well sampling summary report to EGLE and Lansing Board of Water and Light (LBWL) in April 2020.
- Met via a virtual meeting with the EGLE light non-aqueous phase liquid (LNAPL) Technical Advisory Panel (TAP) team to discuss the Site LNAPL conceptual site model (CSM) in April 2020.
- Submitted 2019 Annual Groundwater Monitoring Report to EGLE in May 2020.
- Submitted Additional VI Investigation Work Plan to EGLE in May 2020.
- Attended a virtual meeting with EGLE to discuss recent Site progress and future activities in June 2020.
- Submitted the Phase 2 Plant 2 PFAS Work Plan to EGLE in June 2020.
- Submitted the Plant 3 Storm Sewer Outfall PFAS Mitigation memo to EGLE and the City of Lansing in June 2020.

Work in Progress and Near-Term Milestones Anticipated During the 2nd Quarter 2020

Activity	Schedule
Biosparge	
Plant 2 System Startup	July/August 2020
Plant 3 System - continued operation	Ongoing
Installation of Plant 2 performance monitoring wells	3Q 2020
Plant 2 baseline and Plant 3 performance monitoring	3Q 2020
Lower 1,4-Dioxane Updated Conceptual Site Model	3Q 2020
Biosparge Construction Completion Report	4Q 2020
Storm Sewer Corrective Actions	
Storm Sewer Modifications Construction Completion Report	July/August 2020
Plant 2 Additional PFAS Investigation Work Plan implementation	July/August 2020
Storm sewer modifications site wide follow-up monitoring	July/August 2020
Inspection of Plant 3 outfall manhole	3Q 2020
Investigations and Sampling	
Additional Vapor Intrusion Work Plan implementation	July/August 2020
Plant 2 and 3 Soils Corrective Measures Work Plan implementation	July/August 2020
3Q 2020 Routine Groundwater Monitoring Event	3Q 2020
Work Plans, Reports and Data Submitted, and Meetings	
2020 Semi-Annual Groundwater Monitoring Report	3Q 2020
Submittal of Revised Plant 6 and Adjacent Off-Site Area PFAS Investigation Work Plan	3Q 2020