Beacon & Bridge #8 Cleanup Update

Prepared for:

Date: October 8th, 2018

ONE COMPANY, MANY SERVICES

ENVIRONMENTAL CONSULTING ECONOMIC

PM ENVIRONMENTAL
Risk Well Managed

Objectives

- Provide an overview of site investigation completed
- Provide an overview of the proposed corrective action
- Provide estimated timelines of next steps

Site History

- One release was discovered and reported to the Michigan Department of Environmental Quality (MDEQ) on November 14, 2014.

- Between December 2014 and October 2018, site investigation and remedial activities, included:
  - Advancement of soil borings;
  - Installation of temporary/permanent monitoring wells;
  - Installation of soil vapor points; and
  - Product recovery.

Site History (Continued)

- Analytical results from the site investigation activities indicate that the nature and extent of soil, groundwater, and soil vapor contamination has been defined.

- Based on plume definition, a Revised Final Assessment Report, including a proposed Corrective Action Plan was submitted to the MDEQ on July 23, 2018.

- MDEQ is currently in the process of reviewing the Revised FAR.

Proposed Corrective Action Plan

- The proposed Corrective Action Plan (CAP) includes two Multi-Phase Extraction (MPE) (soil, groundwater, and soil vapor) remediation systems, performance monitoring, verification sampling, and if necessary, institutional controls (land use and/or groundwater use restrictions).

- Additionally, an interim corrective action, Beacon & Bridge plans to remove and replace the existing underground storage tank (UST) system.

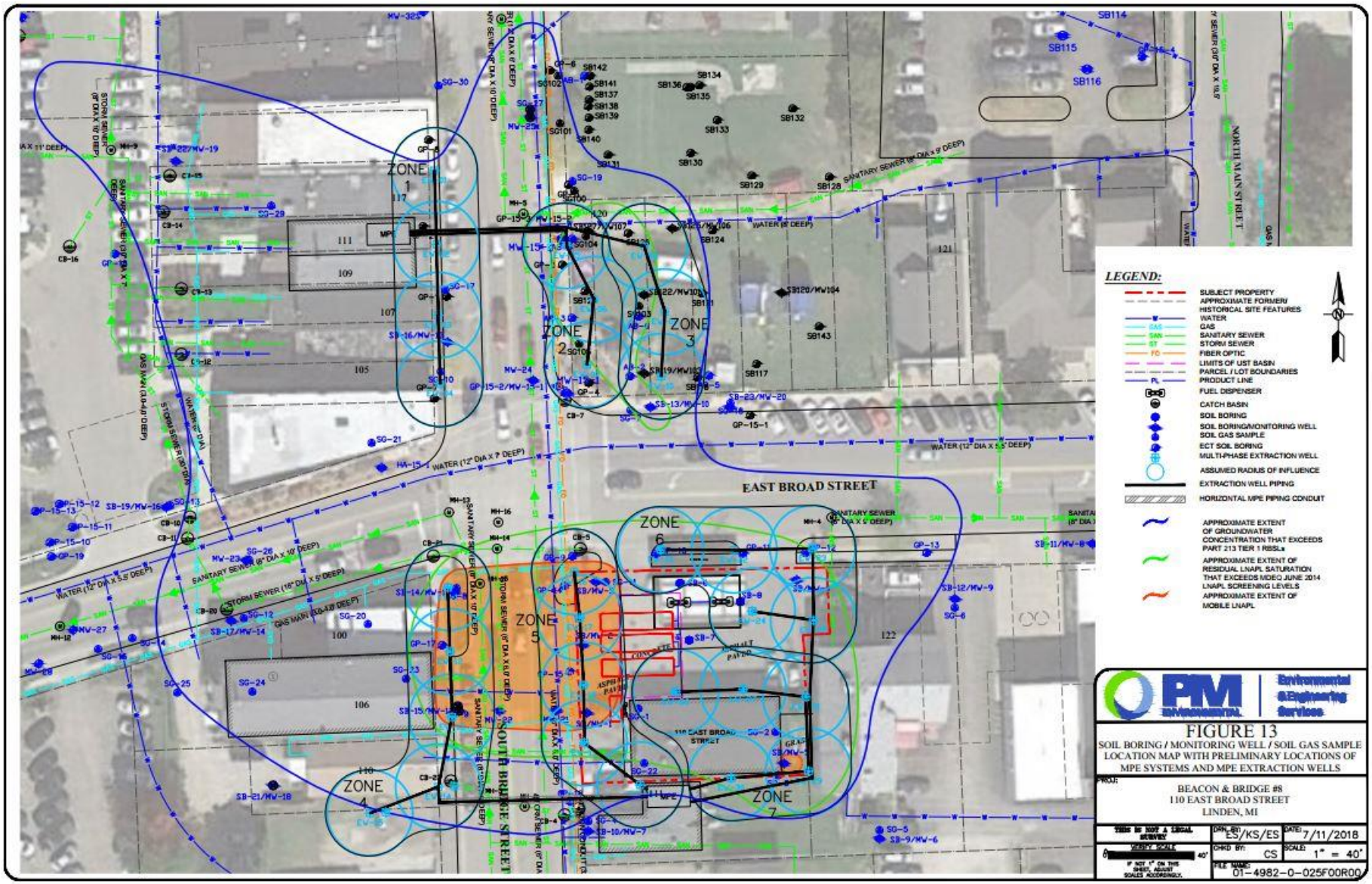
- During the UST replacement activities, impacted source soils and groundwater will be removed from the Site and properly disposed.

Proposed Corrective Action Plan (Continued)

- The recommended corrective action will utilize two MPE remediation systems, one located at 109 North Bridge Street and one located at 111 South Bridge Street.

- The following slide shows a preliminary layout of the proposed system.

Proposed Location of Multi-Phase Extraction



Next Steps

- Prior to installation of the remediation system, a field scale MPE pilot study must be completed to confirm the proposed corrective action is a feasible remediation option.
- The pilot study was completed on October 3 and 4, 2018 and the data is currently being evaluated to confirm that proposed corrective action is feasible and to finalize locations and spacing of the MPE extraction wells.
- A pilot study summary will be provided to the MDEQ with a final MPE extraction well location map.

Next Steps (Continued)

- Following approval of the proposed corrective action by the MDEQ, discharge permit applications, offsite access, and right of way permits will be prepared and submitted to the appropriate authorities for review and approval.

- Once access agreements and right of way permits are received then MPE recovery wells and horizontal conduits will be installed.

Estimated Timelines

Proposed Dates of Key Milestones	
Field Scale MPE Pilot Testing	Completed on October 3 and 4, 2018
Discharge Permit request	Concurrently being prepared with Pilot Test Report
Install horizontal borings for MPE piping conduits	Estimated 3-4 months after CAP approval
Install North MPE system	Estimated 4 to 6 months after installation of horizontal conduits
Install South MPE system	Estimated 4 to 6 months after installation of horizontal conduits
MPE System Operation	Estimated 36 months after system(s) installation
Performance Monitoring	Concurrent with MPE System Operation
Shutdown MPE System	2 to 3 months after performance monitoring documents that project goals are met
Verification Monitoring	24 months following performance monitoring and shutdown of MPE System
Record institutional controls, if necessary	Concurrent with verification monitoring
Preparation and submittal of Closure Report	Estimated 1 to 3 months after final VGR groundwater monitoring event